

# Ultimate Trainer's Manual

A complete set of trainings  
for an entire Ultimate season



Hildo Bijl

*The best way to become a trainer is to start being one.  
It's also the only way.*



*If you tried and failed, you have learned something new.  
If you tried and succeeded, you should try something new.*

# Preface

## How to read this manual?

Let me start with some advice: do not read this manual from top to bottom! You won't make it. Instead, you should apply *selective reading*. That is, you should only read the parts that you're interested in and skip everything else. Do you see the heading "The origins" below? If you care about it, read it. Otherwise, ignore it.

This manual has been set up such that you can just read whatever you like without missing anything significant. And, whenever prior knowledge actually is required, this is clearly indicated.

## The origins

In the fall of 2012, another season started at the Ultimate club Force Elektro in Delft. It was a season which, just like previous years, saw lots of new players. And with all these new players came the responsibility of training them well. As head trainer of the club, I realized that every training needed to be as good as we could possibly make it. So I started up tons of email discussions with my fellow club trainers, trying to design the ideal trainings.

It didn't take long before we realized that these trainings, and the discussions which we had about them, might be valuable to other Ultimate trainers as well. At this point I decided to work out all these notes into a comprehensive Ultimate Trainer's Manual. After a ton of late night work, the result now lies in front of you.

## What's in this manual?

This manual is focused on the beginning Ultimate trainer. Its goal is to help trainers with little or no prior trainer experience to set up high quality Ultimate trainings. To accomplish this, this manual contains 39 trainings of varying subjects and levels which can readily be applied by any novice trainer. These trainings can of course also be used by more experienced trainers that are scouting for new drills.

We start off with some introduction trainings for absolute newbies in trainings 1 to 4. From training 5 onward, there are some trainings covering basics. These basics are very suitable for new players but also not any less important for the more seasoned Ultimate player. Later on we'll treat some more advanced topics.

The trainings follow a regular season as we have it in the Netherlands: outdoor trainings during September and October (trainings 1 to 9), indoor trainings from November throughout February (trainings 10 to 25) and more outdoor trainings from March until June (trainings 26 to 39). The trainings build up knowledge and skills step by step, so you are encouraged to execute the trainings in the order in which they are written. Of course, if you are only looking for inspiration for your own trainings, feel free to browse through them in any order you like.

There are also a few appendices. Especially appendix A can be recommended. It's filled with tips and tricks on how to give trainings. Appendix B gives some advanced player tips. If you want to give fitness trainings next to Ultimate trainings, appendix C will tell you exactly how to do that. Finally, appendix D contains some stories of trainers that used this manual. Feel free to send in yours after you gave the manual a try.

Finally, do check out the drill index at the back of this manual. In it, all drills are sorted by subject. It's perfect if you're eager to look up drills about a particular part of Ultimate.









## Legend

In this book, you will find several drawings explaining drills, strategies and more. The symbols in these drawings indicate the following.



Offensive player.



-  Defensive player. The long line indicates his orientation. The short lines indicate his direction.
-  Disc. When a disc is in the hands of a player, it looks like .
-  Pile of discs.
-  Cone.
-  Field.
-  Player run.
-  Disc flight.
- ① ② ③ Order of events. When things happen in a particular order, you'll find these numbers.

For all drawings in this book, the playing direction (if there is one) is upward.

## Disclaimer

The trainings in this manual reflect the way we give trainings and play Ultimate at Force Elektro. Of course there are many different ways to train and play Ultimate. Views on what would be good drills and playing styles may differ. Feel free to adjust drills as much as you want to the playing style of your club.

When giving the drills of this manual, I strongly recommend you to pay at least a bit of attention to the safety of your players. Don't overexert players, don't leave objects lying around the field which can hurt players, don't play on unsafe fields, and so on. But most importantly: always use your sane mind. It's always still up to you to decide what's wise and what's not. You and only you are responsible for your own actions.

## Copyright stuff

The goal of this manual is to help (starting) trainers. This goal is best reached if this manual reaches as many trainers as possible. That's why it's not only allowed, but also strongly encouraged, to distribute this book as much as possible.

There's one catch. When distributing this book, you may never make money. If you do ask money from people, you may never ask more than it costs you to distribute this book. After all, taking advantage of fellow Ultimate players isn't according to the spirit of Ultimate, now is it?

## Acknowledgements

If I'd be the sole inhabitant of this planet, this manual wouldn't have existed. Apart from the obvious reasons, this is because other people contributed, each in their own way, to this manual.

First I'd like to thank my fellow trainers at Force Elektro, Titus Braber, Robbert van Staveren and Paul Dezentje, whom I've had tons of lengthy discussion with about Ultimate trainings and everything related to it. Their feedback made me a better trainer. It's also worth mentioning my team, for dutifully serving as test subjects for all the drills and for being such excellent inspirations for the "points of attention" parts.

Next, I'm thanking Lisette Jansma (player at Bluefingers), Ted Beute (player at Red Lights and author of "Frisbee, Het Ultieme Spel"), Rosário Gomes (player at Force Elektro), Hans Krens (professional trainer and coach at frisbeeclinics.nl) and Daan Remmers (trainer and coach at Airborn), for giving feedback on parts of this manual. The general set-up of this manual would have been different without them.

I should also thank all the people that have taught me all my Ultimate knowledge over the years. These of course include the Force Elektro trainers during my rookie years. But there are also the guys from the Sock-eye and RISE UP camps which I've had the honor of attending. They taught me tons of tiny details about Ultimate, and I must admit that I also blatantly stole a few drills from these camps. And I shouldn't forget Ad Dubbeldam (fitness instructor at the Delft University of Technology sports center) who has taught me a lot about fitness training.



Finally, I want to thank everyone whom I've ever had a discussion with, either big or small, about Ultimate or any related subject. In fact, I've always loved having short one on one talks with random people on the side of an Ultimate field. After all, with any two people, it's always the case that one can learn from the other, and most of the times it goes both ways.

## **Reactions?**

I'm always curious what people think of my books, and whether they can be improved in any way. Do you wish to react in any way? Like with suggestions for improvement, compliments, success stories, reasons why you like or dislike this manual, marriage proposals, warnings of an impending armageddon, requests for future work, or anything else? Then don't hesitate to send me an email at [hildobijl@gmail.com](mailto:hildobijl@gmail.com). Also please mention your background. After all, I'd also love to know what kind of people read my books.

## **Discussions and updates**

Do you want to discuss your Ultimate trainings with other players? One place to do so is online at our Facebook page <http://www.facebook.com/UltimeTrainersManual>. Feel free to join a discussion, start a new one or just leave a comment.

Next to this, updates of this Manual are also regularly uploaded to the Facebook page. Typing errors are fixed, an occasional drill is added, and perhaps even a new appendix may be written, based on input from readers. So make sure to regularly check the page for updates.

Oh, and to keep track of it all, this file's version number is **2.5**.

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# 1. Introduction training 1 - basic concepts

This is the first introduction training for people that have absolutely no clue what Ultimate is about. The goal of this training is to teach them how to play Ultimate, and also what's so specific about the game of Ultimate.

## *On giving these introductions trainings*

Teaching a whole group of people without any prior Ultimate experience how to play Ultimate is a lot of work. You need to give lots of feedback on very basic things, which will cost a ton of time. For that reason, you should ask some other Ultimate players to help you out. Any player with at least half a year of experience will do. Try to have roughly one experienced player for every six new players.

These experienced players are mainly around for giving individual feedback. All the explanations in this training are still done centrally. During these explanations, make sure to demonstrate and visualize things as much and as clearly as possible. Of course the experienced players can help you out with this, by for example being a receiver or a marker.

## *Prior knowledge*

Absolutely no prior knowledge is required. Well, players should know that Ultimate is a sport. That is, they should be dressed up in proper sportswear. No jewelry and other trinkets should be worn.

## *Concepts that are/aren't treated*

In this training, we discuss concepts like the backhand throw, the forehand throw, the basic rules of Ultimate, throwing into space and marking.

We do not treat concepts like the stack, handlers and cutters, the stall count, forcing to a side, confusing rules about picks/marketing infractions, and so on. Keep in mind (and also instruct any potential helpers) that these terms should *not* be mentioned. New players already get a lot of information. Throwing around more terms will only cause them to remember less.

## *The warming-up*

If you're giving this training at a club in which you also have a lot of experienced players, then it would be nice to start off with a joint warming-up. In this way the new players can mingle a bit with the experienced players. After the warming-up, split up the trainings. Have someone else give the experienced players a training from the end of this manual, while you give this training to the newbies.

## 1.1. Backhand throwing (and catching)

### *Theory*

The basic rules of Ultimate are pretty simple. In fact, we can summarize them in four rules. The first rule of Ultimate is that, *when you have the disc in your hands, you may not walk*. In fact, you should always keep one foot, your so-called *pivot foot*, on the ground. If you are right-handed, this should be your left foot. If you're left-handed, it's your right foot.

But a game of just standing still is a bit boring, isn't it? That's why, when you have a disc, you should try to throw it to one of your teammates. There are a lot of ways in which you can do this. The one which you are probably most familiar with is what we call the backhand throw. So let's take a look at that.

The grip is simple. Your four fingers are inside of the rim. The thumb is on top. If you want, you can put your index finger a bit more around the rim.

Now let's say that I want to throw to a player upfield. In a real match, there will probably be a defender in front of me, trying to block the throw. To throw around him, I step out with my non-pivot foot. When doing this, both of my shoulders are in one line with the receiver.



Now I can throw the backhand pass. I first move my upper arm, my lower arm follows, and in the end I snap my wrist to put spin in the disc. This spin is very important. If the disc is spinning, the throw is stable.

After I throw a disc, someone should of course catch it. How do you do that? Well, there are again many ways to catch a disc. The safest way to do so, in which you are most certain that you have the disc, is through the *pancake catch*. You have one hand below the disc, one hand on top, and your chest is behind the disc.

Oh, before I forget, there's one extra rule for safety. It might happen that your throw does not go where you want it to go and is about to hit someone else. In that case, you should loudly call "Heads!" This means a disc is about to hit someone. What do you do when you hear heads? Exactly. Duck. And protect your head.

### **Drill set-up**

We'll practise this throwing and catching in pairs. Players should make pairs and each pair grabs a disc.

For this drill, it's important to set out cones. Otherwise players will start throwing all over the field and chaos will ensue. So, set out two lines of cones such that there's one cone for every player. All cones should be 10 to 12 meters away from their neighbours.

### **Points of attention**

- » Some players will hardly move their arms while throwing. They just "wind up" their arm to put spin in the disc. Show these players the throwing motion. While the disc is in your hands, it should already be moving, in a straight line, toward the receiver. In this way, when you let go of the disc, it can simply continue to go straight ahead, toward its intended target.
- » Some players will throw very *wobbly* discs. (A disc is wobbly if it appears to flap around a lot.) They will not understand why this is the case. Advise these players to put more spin in their throws. This spin should be created by properly snapping the wrist at the end of the throwing motion. (More spin will reduce wobbliness by about 80%. The remaining 20% is solved by better technique, which can only come through practice.)
- » Many players will step out forward (toward the receiver) instead of sideward. Tell these players that, in a match, they have a defender in front of them. That's why it's wise to get used to stepping out sideward. Also, some players lift their pivot foot while throwing. The rules of course don't allow this. Advise these players to get used to keeping this foot on the ground.
- » Don't forget to pay attention to catching too. If you see a player that frequently drops a disc, it's probably because he wants to use a rim catch instead of a pancake catch. Ask him to try the pancake catch instead.

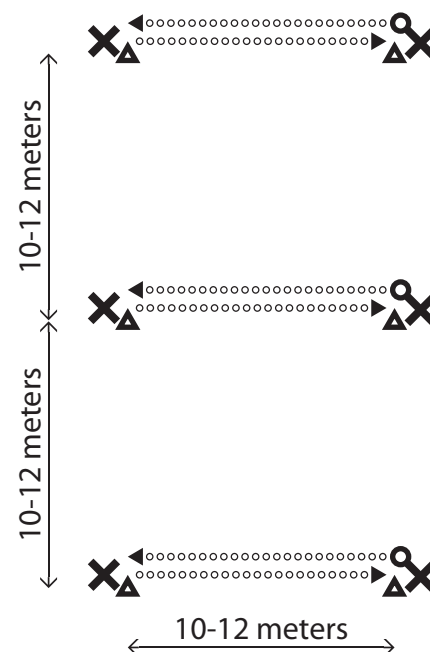
### **Advanced extensions**

- » If there is a player that does this backhand throw really well, then you can give him an extra challenge. (It's always nice when the trainer says you're doing things so well that you get an extra challenge.) Ask him to vary the angle at which he throws the pass. By doing this, he can curve the pass. Ask him to curve the pass both ways. (He will learn later, at drill 7.1, that this is called throwing a disc inside/outside.)

## **1.2. Forehand throwing (and catching)**

### **Theory**

Now you know the backhand throw. This throw is ideal for throwing the disc from one side of your body. However, if there just happens to be a defender standing there, it doesn't work so well. That's why we also need a throw from the other side of our body. For this, we use the *forehand throw*. (In Europe, it's also called



the *side-arm* throw, while the Americans regularly call it the *flick*.)

First let's discuss the grip. You put your index finger and your middle finger inside the disc. Your middle finger is against the rim of the disc. Once more, your thumb is on top.

If I want to throw to a receiver, I'm actually facing that receiver. Of course, if there's some defender in front of me, I do have to step out sideward a bit to get around him.

I now let the disc hang down my side, with my lower arm almost pointing to the ground and my wrist a bit loose. Then, by snapping my wrist, I throw the disc forward. This wrist snap is very important. In fact, you hardly need to move your arm at all. You use your wrist to put spin in your throw.

### ***Drill set-up***

The set-up of this drill is the same as that of the previous drill (1.1). Throwing in pairs, 10 to 12 meters apart.

### ***Points of attention***

- » This is a hard throw, and some players will get frustrated that it doesn't work right away. Tell them that it always takes several few weeks, if not a few months, before they get a bit comfortable with this throw.
- » The most important thing to fix in this throw is the spin. A disc should spin quickly enough to reduce wobbliness to a minimum. But many players will mainly use their arm to throw a disc instead of their wrist, reducing the spin. Ask these players to use their wrist more. In fact, at the start it doesn't matter so much where the disc is flying off to, as long as it spins quickly enough to prevent wobbliness.
- » When the throw has enough spin, the next step is to get it to be flat. Many players will, without intending to, make outside throws. (Do not use this terminology though. There are already plenty of new terms to learn.) In fact, during its flight, for a right-handed thrower, the disc will rotate counter-clockwise.

To fix this, we should start our throw with the opposite orientation. (That is, we should throw more of an inside throw.) To accomplish this, ask the players to keep their lower arm low, pointing to the ground. This feels awkward, but it usually solves the problem. If it doesn't, you can tell players that, at the end of the throwing motion, their wrist should pointing upward. Ask them to see if they can do that.

- » Many players will step out forward (toward the receiver) instead of sideward. Tell these players that, in a match, they have a defender in front of them. That's why it's wise to get used to stepping sideward. Also, some players lift their pivot foot while throwing. The rules of course don't allow this. Advise these players to get used to keeping this foot on the ground.

### ***Advanced extensions***

- » Just like in the previous drill (1.1) you can challenge very good players to vary the angle at which they throw the disc. (That is, to throw inside and outside throws, but you should leave out that terminology for now.) Of course the outside throws are a lot easier than the inside throws, so encourage them to try the inside throws as well.

## **1.3. Throwing into space**

### ***Theory***

I already told you the first rule of Ultimate. *When you have the disc in your hands, you may not walk*. So you have to throw it to one of your teammates. The second rule of Ultimate is, *When you throw a disc, one of your teammates has to properly catch it*. If anything else happens, like if the disc hits the ground, if it flies out of the field, if it is intercepted by the defense, or even if it is slammed to the ground by the defense, there is a *turnover*. The defense may pick up the disc right away to become the new offense.

So we see that it is pretty important to catch a disc and to prevent the defense from getting to it. That's why in Ultimate you never really throw to a person that is standing still. Instead, you throw the disc into a space where your own team can run to and catch it before the defense can.

### Drill set-up

We're going to practise this in groups of three. First of all, make squares of 10 to 12 meters wide. (If you did the previous two drills 1.1 and 1.2, then you already have these squares!) The three players each position themselves at a cone. The person that is counter-clockwise from the open cone has a disc. (Also see the figure on the right.)

The player next to the open cone - that is, the one without a disc - will run toward the open cone. At the same time, the player with the disc will throw it there. The timing should be such that the runner can run into the disc and catch it without slowing down.

When the receiver has gained control of the disc, the pattern is repeated. That is, the next player starts running and gets the disc.

To make this drill effective, all throws should be along the outside of the square. That is, right-handed throwers should throw backhand throws. Left-handed throwers should throw forehands.

Halfway through the drill, call out to switch the throwing direction. The disc then goes counter-clockwise and right-handed throwers should throw forehand throws. Note that this will make the drill a lot harder!

### Points of attention

- » Some players want to experiment with their throws and will occasionally throw backhands when they should throw forehands and vice versa. Ask these players to stick with the drill. The disc should always travel around the outside of the square. (If needed, you can pretend to be a defender and run along with a player, to show why this prevents the defense from getting to the disc.
- » Often the runner starts running too early. He is already moving, even before the player in front of him is ready to throw. When you see this happening a lot at a certain group, interrupt the group. Tell them that the runner should run at roughly the same time as when the throw is made.
- » Keep in mind the basic throwing techniques. Okay, this drill is mainly about throwing a disc into space. But when a player is seriously violating the throwing techniques which he just learned, feel free to interrupt the group and briefly comment on this.

### Advanced extensions

- » When this drill is going well, challenge the group to get a smooth flow going. All runs should be perfectly timed. That is, the thrower can simply catch the disc and immediately throw it on to the next cone, and the runner will catch it without having to wait for it.

## 1.4. Break the mark (simplified)

### Theory

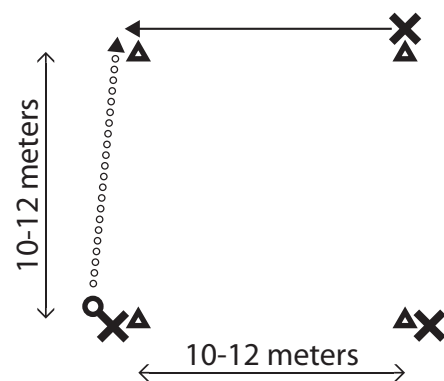
The third rule of Ultimate is that *no physical contact is allowed*. That is, it's not allowed to push or tackle each other. It is also not allowed to pull the disc out of someone's hands.

So if you're defending someone with a disc, what can you do? You can stand in front of him and try to prevent him from throwing in a certain direction. We call this *marking*. A marker should be low, on his toes, to be maneuverable. He uses his arms to block any potential throw that is made.

As a thrower, you'd like to still be able to throw to the space behind the marker. To *break the mark*, you need to get your marker off-balance. Make fakes, pretend to throw, and then beat him where he least expects it.

### Drill set-up

We're going to practise this in groups of three. Each group needs two cones, positioned 10 to 12 meters apart,





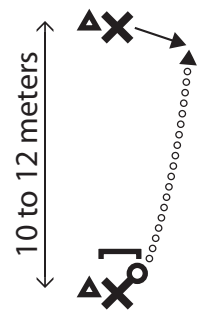
and of course a disc. (Yes, you can again use the cone set-up of the previous drills.)

The thrower, with the disc, will be at one cone. He wants to throw the disc to the receiver, at the other cone. However, the marker will try to prevent him from doing that.

In this drill, it is also allowed to throw the disc into the space next to the receiver. In this case, the receiver can simply run to catch the disc. (See the figure on the right.)

After a pass, the thrower runs after his throw to become the new marker. The marker stays as the new receiver. The receiver, who now has the disc, of course becomes the new thrower.

Halfway through the drill, call out to switch the marker and the thrower, such that players aren't always marking the same thrower.



### ***Points of attention***

- » There are so many details you can mention about marking, but this training isn't about teaching players the perfect marking stance. (We have training 8 for that.) It's just about players getting used to the concept. So don't offer too much in-depth feedback. Only fix really weird things.
- » If the marker is really close to the thrower, you might want to mention that the minimum distance is 30 centimeters - one disc space. If the marker really wraps his hands around the thrower, you might want to mention that that is not allowed. This is called wrapping. Advise the player to keep his hands a bit backward, giving him more time to block any potential throw. And finally, if a marker is really standing straight up, advise him to be a bit lower.
- » Some throwers don't step out at all when making fakes. Even when throwing a backhand pass, they are still facing their receiver. Advise these throwers to step out properly for a backhand pass. Other throwers step out way too often - like twice per second. Advise these players to calm down a bit.
- » In a break the mark drill, throws over the marker (knives/hammers) generally aren't allowed. Luckily, the newbies don't know these throws yet, so you don't need to mention this. If some players do start throwing vertical throws, mention specifically to these players that this defeats the purpose of the drill.

### ***Advanced extensions***

- » If players are really good at breaking the mark, you can take away the extra "simplification" that the receiver can move. Instead, tell the receiver to stay at his cone.

## **1.5. Game time (with game rule explanation)**

For this explanation, it's important to have an Ultimate field drawn out somewhere. Having a fancy whiteboard would be nice. (These things are pretty cheap when bought online.) If one isn't available, bring a marker and a big A3 piece of paper.

### ***Theory***

By now, you know the first three basic rules of Ultimate. Rule 1: *when you have the disc in your hands, you may not walk*. Rule 2: *when you throw a disc, one of your teammates has to properly catch it*. And rule 3: *no physical contact is allowed*. We're still missing something though. What's the whole goal of an Ultimate match? Besides having fun, of course.

The goal in an Ultimate match is to cross the field to reach the endzone at the far side. In fact, rule 4 is that, *when you or one of your teammates catches the disc in the endzone, your team scores a point*. After this happens, the scoring team stays in the endzone they just scored at. The other team walks back to the other side.

Both teams then line up on their own endzone line. During this time, the teams can agree on some strategy. For the defense, this usually means each player chooses which opponent they will defend. When a team is ready, they indicate this by raising a hand.

When both teams are ready, the team that just scored will throw the disc to the other team. This first throw, called *the pull*, starts the point. The other team catches or picks up the disc and starts on offense.

If that's all clear, then we can start the match!

### ***Drill set-up***

We'll play a game of Ultimate. But this won't be a full 7 on 7 game. (If you'd do that, most players won't even get the disc, which is very discouraging.) Instead, we'll play a 5 on 5 game on a smaller field.

The field can be something like 18 meters wide, 40 meters long, with endzones of 6 meters, though feel free to vary a bit in this, based on the available space.

When making teams, try to mix up teams equally. That is, give each team roughly the same amount of girls, the same amount of fast guys that run way too much, and also (if possible) let each team have one experienced player.

### ***Points of attention***

- » It's important that players stick as much as possible to the basic rules of Ultimate. That is, after a score, make sure to send the team that didn't score back to the other side. This may initially cause some confusion, but if players get used to this from the start, it will prevent even more confusion later on.
- » Another thing which is confusing is where to go with a disc after a turn. For example, if there is a turn in the endzone, players are allowed to walk to the endzone line. Guide players in this. If needed, you can tell them that the disc should always be brought to the nearest point of the inner playing field.
- » The most important part of the game though, is that everyone is having fun. If people like the game, they will continue to show up, be eager to learn more and will eventually turn into amazing Ultimate players.

### ***Advanced extensions***

- » No advanced extensions here. Just let the players have fun. If they're doing well, and are liking the game, there is no need to intervene.

### **Training recap**

In Ultimate, the two important throws are the backhand and the forehand throws. It's important to practise these throws well.

There are four important rules to keep in mind when playing Ultimate.

Rule 1: *When you have the disc in your hands, you may not walk.* Instead, you should try to throw the disc to one of your teammates.

Rule 2: *When you throw a disc, one of your teammates has to properly catch it.* If anything else happens, the defense can pick up the disc to become offense.

Rule 3: *No physical contact is allowed.* And you're also not allowed to pull a disc out of someone's hands. Instead, you can make it hard for him to throw.

Rule 4: *When you or one of your teammates catches the disc in the endzone, your team scores a point.* After this happens, the team that scores stays in that endzone. The other team walks back. When both teams are ready, the scoring team *pulls* the disc to the other team and a new point begins.

## 2. Introduction training 2 - offense

This second introduction training will focus on the offense. Players will learn how to make decent cuts.

### *Prior knowledge*

This training has been set up such that, even if a player didn't follow the first introduction training, he can still follow this training without too many problems. The things that aren't explained are things he can easily figure out by watching the others that did attend the previous training.

### *Concepts that are/aren't treated*

In this training, we continue to use the concepts discussed in the previous training. (That is, the backhand throw, the forehand throw, the basic rules of Ultimate, throwing into space and marking.) To that, we add the concepts of running into the disc, running deep, the vertical stack, handlers and cutters.

We do not treat the stall count, forcing to a side, confusing rules about picks/marketing infractions, and so on. Just like in the previous training, these concepts should *not* be mentioned.

### 2.1. Backhand throwing (and catching)

#### *Theory*

Being able to throw is very important in Ultimate. That's why we keep on practising the throws.

Let's start off with a recap of the backhand throw. We put four fingers around the rim and the thumb on top. We step out such that our shoulders are in one line with the point we want to throw to. Now we're ready to throw the disc.

During the throwing motion, the disc will move in a straight line to our target so that, in the end, all we have to do is release it, and snap our wrist to give it some spin.

#### *Drill set-up*

This drill is the same as that of the previous training (drill 1.1). Throwing in pairs, 10 to 12 meters apart.

#### *Points of attention and advanced extensions*

- » The points of attention are the same as in the previous training. Though with players that have already attended the first training, you could focus a little bit more on details.
- » If players haven't attended the first introduction training and look confused, take the time to properly explain them the throwing technique.

### 2.2. Forehand throwing (and catching)

#### *Theory*

The backhand throw is important to master, but if a defender is blocking that throw, we also need a throw from the other side of our body. Last week we treated the forehand. Let's recap that one too.

You put your index finger and your middle finger inside the disc, against the rim. The thumb is on top. This time I am directly facing the point I want to throw to. I step out to the side and with a snap of my wrist I launch the disc forward.

Keep in mind that your lower arm should point to the ground. Also, you don't really have to use your arm for this throw. Instead, you use your wrist to put spin in the throw.

### ***Drill set-up***

This drill is the same as that of the previous training (drill 1.2). Throwing in pairs, 10 to 12 meters apart.

### ***Points of attention and advanced extensions***

- » The points of attention are the same as in the previous training. Though with players that have already attended the first training, you could focus a little bit more on details.
- » Again, if players haven't attended the previous training, you can give them a longer explanation.

## **2.3. Heads-on drill**

### ***Theory***

In an Ultimate match, it's pretty fun if you occasionally get the disc. The problem is, if you're standing still you will never get it. Someone might throw it to you, but your defender will just jump in front of you to steal the disc. If you want to get the disc, you will have to run toward it. In fact, you have to keep on running until you have the disc in your hands. In that way you can be sure that your defender will not get in-between.

### ***Drill set-up***

To practise this, make groups of 6 to 10 players. Set up two cones 20 to 25 meters apart. All players except for one (the front player of one line) have a disc.

At the start of the drill, the front player of one of the lines runs forward. He receives a pass, catches it and continues running to the back of the line in front of him. In the meantime, the player that just threw a disc immediately becomes the next runner and can run forward.

Make sure to use both the forehand and the backhand throw during this drill.

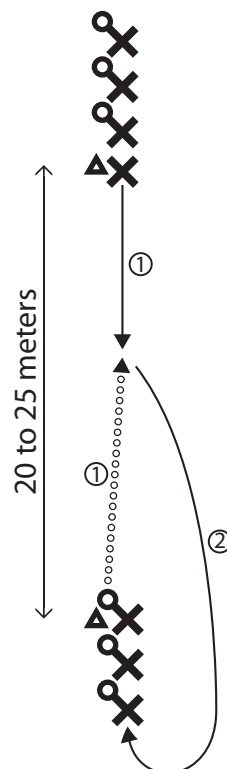
### ***Points of attention***

- » Running at full speed into a disc which is coming straight toward you is rather suicidal. It will take some time for players to get used to doing this. Encourage them here. Cheer them on to really run into the disc.
- » Many players will only use their "good" throw (that is, their backhand) during this drill. Encourage these players to also try their forehand throw.
- » Keep in mind that during this drill players still use the appropriate throwing and catching technique.
- » This drill might be a bit tiring. If the players also look tired after this drill, give them a short water break.

### ***Advanced extensions***

- » If the group is pretty good at catching and throwing, you can change this drill up a bit. When a runner receives a pass, he doesn't continue running anymore. Instead, he stops, turns around and throws the disc to the line he just came from. Then he continues running forward to the other line.

You should only do this if the group has good and accurate throws though. If not, this drill will have a rather slow pace. Alternatively, if you're short on discs - there are way more players than discs - then you might be forced to give this alternative drill.





## 2.4. Running deep and cutting back in

### Theory

If you always run toward the disc, your offense will be very predictable. Luckily, there is also a second option. It's what we call *running deep*. You then run straight away from the disc to receive a long pass.

Pretending to run deep is also a nice way to get your defender off-balance. If you run deep and suddenly run in again, you usually get open enough to catch the disc.

### Drill set-up

Make groups of 6 to 12 players. For every group, we need one experienced thrower capable of throwing long passes. We also need two cones, set up 14 and 18 meters away. (See the figure below.) Finally, we need an offensive and a defensive player to start this drill.

The offensive player runs deep at full speed (run 1). The defensive player follows. When the offensive player is between the cones, he should make a decision. Either he continues running deep at full speed (option 2), or he stops and immediately runs back toward the disc (option 3). In either case will the thrower throw the disc to him.

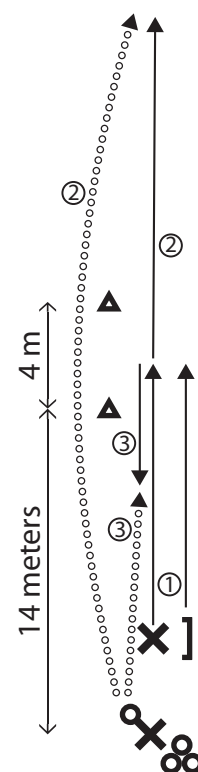
After executing this drill, the offensive and defensive player jog back to the waiting line. Players should mix up offense and defense.

### Points of attention

- » Initially, players will mostly run deep. If this really happens a lot, advise defenders about this. Tell them the offensive player will most likely run deep, so they should get a head start in that direction. This will teach offensive players to also cut back in.
- » Some players might run very hesitantly. For example, when they're in-between the cones, they might need a second or two to figure out whether they want to run deep or not. Explain again to these players that they only have two options. Continue to run at full speed or immediately turn around to run back.
- » This drill is quite tiring. When players lose their enthusiasm, it's time to end this drill.

### Advanced extensions

- » Alternatively, you can turn this drill around. Players now start deep, run in, and then decide if they continue to run in, or double back and run deep.



## 2.5. Game time (with vertical stack explanation)

### Theory

It's time for a game again. Do you guys still know the four basic rules of Ultimate?

- » Rule 1: *When you have the disc in your hands, you may not walk.* Instead, you should try to throw the disc to one of your teammates.
- » Rule 2: *When you throw a disc, one of your teammates has to properly catch it.* If anything else happens, the defense can pick up the disc to become offense.
- » Rule 3: *No physical contact is allowed.* And you're also not allowed to pull a disc out of someone's hands. Instead, you can make it hard for him to throw.
- » Rule 4: *When you or one of your teammates catches the disc in the endzone, your team scores a point.* After this happens, the team that scores stays in that endzone. The other team walks back. When both teams

are ready, the scoring team *pulls* the disc to the other team and a new point begins.

Now, in theory we are ready to start a game. But first I want to briefly discuss what you do when you receive the pull and start on offense. There are of course plenty of offensive strategies around. The one which we will apply today is called the *vertical stack*.

In this vertical stack, we have two *handlers*. They will receive the pull and then try to play the disc forward. If there is no option forward, then the handlers pass the disc among each other.

Further down the field, we have three *runners*, also known as *cutters*. They start off in the middle of the field. It's their job to run and get open to receive the disc. And after today's training, we all know how to do that.

This is the basic offensive strategy which we will always apply today. Let's play Ultimate!

### ***Drill set-up***

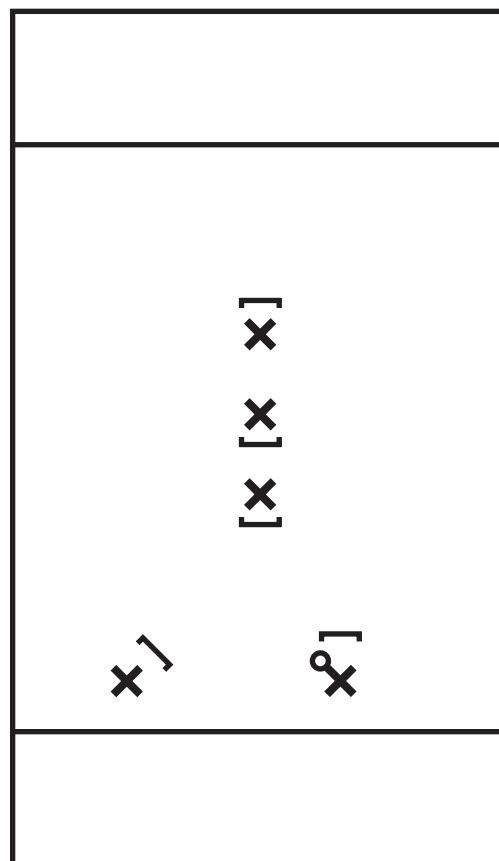
Set up the games in the same way as in the previous training (drill 1.5).

### ***Points of attention***

- » Players should try to apply what they learned during the training. They should either run toward the disc or away from it. If you see players making horizontal cuts across the field, a defender can easily jump in-between. So advise these players to either run toward the disc or away from the disc.
- » Similarly, encourage players to use the vertical stack play. This means players should set up in the right way at the start of a point and after every turn. You might also want to mention to your team that only the handlers may catch/pick up the pull.
- » Again, it's important that the players have fun. Encourage this in any way possible.

### ***Advanced extensions***

- » There are no advanced extensions here. If the players are liking the game, there is no need to intervene.



### **Training recap**

It's important to keep practising the backhand and forehand throws.

You'll never get the disc in an Ultimate match by standing still. Even if someone throws it, a defender will jump in-between. If you want the disc, you should either run toward it or away from it. Running toward it can get you a short pass forward. Running away from it may result in a deep pass.

A common strategy in Ultimate is the *vertical stack* play. In this play, we have two handlers that try to pass the disc forward. If they can't, they pass it among each other. We also have three runners, starting off in the middle of the field. They then run and try to get open to work the disc up the field.

## 3. Introduction training 3 - defense

While the second training was about offense, this third training will focus on defense.

### *Prior knowledge*

This training has been set up such that, even if a player didn't follow the prior introduction trainings, he can still follow this training without too many problems. The things that aren't explained are things he can easily figure out by watching the others that did attend the previous trainings.

### *Concepts that are/aren't treated*

In this training, we continue to use the concepts discussed in the previous trainings. To that, we add the concepts of the stall count and of forcing. The only thing which we will leave for the next training are how to deal with the confusing Ultimate rules.

### 3.1. Throwing (and catching)

#### *Theory*

It's important to keep on practising the throws. So we'll start off with a bit of basic throwing practice. First we'll work on the backhand throw. Later we'll do the forehand throws.

In this drill, focus on putting a lot of spin in your throw, such that it isn't wobbly. It should arrive flat, at chest height. If this goes well, focus on stepping out far enough to throw around an imaginary marker.

#### *Drill set-up*

This drill uses the same set-up as drill 1.1. For the players that didn't attend any of the previous trainings, give a separate explanation on throwing and catching.

Initially, players should start with the backhand. After about 40% of the time, call out to switch to the forehand throw. (We don't want to give players the freedom to try whatever throw they like, as some players will then only stick with the "easy" backhand throw. Instead, they should mainly focus on the forehand throw, which takes somewhat more time to master.)

#### *Points of attention and advanced extensions*

- » The points of attention are the same as in the previous training. Of course, the better someone is doing, the more you can focus on details like stepping out properly and/or throwing inside/outside throws.

### 3.2. Break the mark

#### *Theory*

Today's focus will be on defense. Let's say that we are defending someone with the disc. We are not allowed to pull the disc out of the thrower's hands. But we can make it hard for him to throw in a certain direction. This is called *marking*.

The nice part about marking is that the thrower cannot walk, but you can! Though to be maneuverable, you need to be low and on your toes. You should keep your hands low and a bit backward, so you have more time to block the disc.

We're going to add one more rule to this drill. In Ultimate, a thrower only has 10 seconds to throw the disc. The person that's counting these 10 seconds is in fact the marker. When a marker arrives at a thrower, he starts with "Stalling one" and then counts the seconds, "two, three," and so on. When the marker says the "t" of ten, there is a so-called *stall-out*, and the thrower must drop the disc.

### Drill set-up

We're going to practise this in the same way as in the first training (drill 1.4). We'll make groups of three. There is a thrower, with a disc, a marker and 10 to 12 meters away a receiver. The thrower tries to throw to the receiver. The marker tries to prevent this. At the same time, the marker must set up the stall count.

After a throw, the thrower runs after his disc to become the new marker.

Halfway through the drill, call out to switch the thrower and the marker, such that markers aren't always marking the same thrower.

### Points of attention

- » The points of attention are the same as in drill 1.4.
- » Also check if players are setting up the stall count, and are doing so properly. Some players forget the stall count altogether. Inform them of this. Other players forget the "Stalling" word. Ask them to start the stall count with "Stalling one." Again other players count way too fast or way too slow. Inform them of this and ask them to slow down/speed up.

### Advanced extensions

- » There are no advanced extensions. Experienced players also often do this drill, so for beginners it's challenging enough.

## 3.3. Forcing to a side

### Theory

Let's say that I'm a thrower and I want to throw to a receiver upfield. Of course I have a marker, and the receiver has a defender as well. Also let's say that the marker is straight between the thrower (me) and the receiver. This situation is actually pretty good for the offense.

You see, if the upfield defender is on one side of the receiver, I can simply throw the disc into space on the other side. (See the figure on the right.) And if the upfield defender is also straight in-between the thrower and the receiver, then I can throw the disc on either side. The receiver will run and will always get the disc first.

So what can the defensive players do about this? That's simple. They divide the tasks. They agree that the marker will shut down one half of the field, while the upfield defender will shut down the other half. This strategy is called *forcing*.

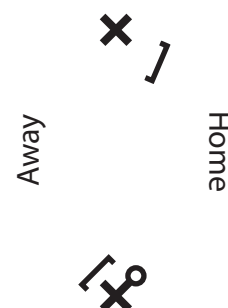
But how do we communicate who does what? The solution here is to give names to the sides of the fields. Let's call the side of the fields where our bags are *home*. The other side is called *away*. When a marker applies a *force home*, he forces the thrower to only throw to the home side. In fact, he positions himself 45 degrees toward the away side to prevent any throws to the away side.

The upfield defender does the opposite. It's his job to block throws on the home side. That's why he positions himself on the home side. In this way do the defenders divide the tasks.

In defense, it is very important to trust your teammates. A single defender cannot block everything. But if everyone blocks the options they need to block, then you can often stop the offense.

### Drill set-up

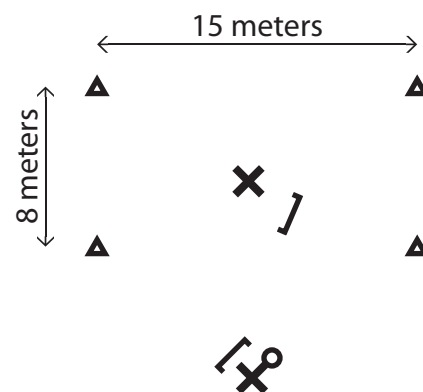
We will practise this in groups of 4 to 8 players. We set out a small endzone of roughly 15 by 8 meters. (See the figure on the next page.) There is one experienced thrower with a marker, 5 to 10 meters outside of the endzone, and there is one runner with a defender inside of the endzone.



When the defender says “Stalling one” the play starts. It’s the goal of the offense to score inside the endzone. The defense should prevent this.

The rotation is simple. The marker becomes the next upfield defender. The upfield defender becomes the next runner. The runner takes his disc, hands it back to the thrower and joins the waiting line. Finally the front player in the waiting line becomes the next marker.

Do keep in mind that the thrower should be an experienced player (potentially you). This drill is simply a lot more effective if the thrower immediately takes advantage of any mistake the defense makes. When this happens, the thrower can also comment right away on the type of mistake that was made.



### ***Points of attention***

- » The mistake which the upfield defender often makes is that he tries to cover both sides. He then runs to block a throw to the closed side, leaving the open side wide open. If this happens, throw the easy pass on the home side and comment on what went wrong.
- » The mistake which the marker often makes is that he tries to cover both sides. He then nearly puts up a straight mark. If this happens, just throw an around pass to the runner for an easy score. Also comment on what went wrong.
- » If both defenders do a good job, and there is no real opening, don't forget to compliment the defense.

### ***Advanced extensions***

- » If a group did really well at the break the mark drill (drill 3.2), then you might consider to put one of the inexperienced players up as a thrower. This will involve the group a bit more, but it will also make the drill less effective for the defense, because their mistakes aren't always directly taken advantage of. So think well before you decide to change the drill in this way.

## **3.4. Game time (with defensive explanation)**

### ***Theory***

It's time to try our skills in an actual Ultimate game. But there is one thing which we haven't discussed yet. We've seen how to set up a mark. We've seen how to defend someone in the endzone. But we haven't seen how to defend a runner in the field yet.

Let's say I'm defending a runner in the field. My team is doing a force home. So on which side of the runner am I? Exactly, on the home side. But am I a bit behind the runner? Or a bit in front of him?

This actually depends on the runner. If the runner is an amazing deep runner, that always catches the deep passes, then I want to prevent him from running deep. I stay behind him. Of course he can now run in and get a short pass, but that's something I just have to accept.

But what if the player I'm defending is an amazing thrower? In that case, it might be wise to stay in front of him, preventing an easy pass. He might run deep, but if I'm fast I can still catch up and block the disc.

The main lesson here is: *When defending a runner, you always take away the option which you fear the most.*

Now we're ready to apply our defensive skills in a match.

### ***Drill set-up***

We'll play a game again, just like at drills 1.5 and 2.5.

### ***Points of attention***

- » The force is an idea which players need some time to get used to. To make things easier for them, you might want to keep the force the same during the entire match. For example, you might say, “Let’s always force home.” Then encourage players to actually set up the defense in the right way.
- » In the offense, encourage players to again use the vertical stack play, like we discussed it in the previous training.

### ***Advanced extensions***

- » Again, there are no advanced extensions for an Ultimate game.

#### **Training recap**

When defending a thrower (that is, when *marking*) you have to be low and on your toes. You should keep your hands low and a bit backward. When you start your mark, you say “Stalling one” and then count the seconds.

A single defensive player cannot block everything. It’s important to divide tasks. That’s why the marker only blocks one half of the field. He *forces* the thrower to throw to the other half of the field. The upfield defenders then shut down this part of the field. To properly force a thrower to throw in a certain direction, you have to move roughly 45 degrees in the other direction.

Similarly, when defending an upfield runner, you generally cannot shut down both the short pass in and the long pass deep. Here the rule is, *Always take away the option which you fear the most*. So if you’re defending a deep runner, stay behind him. If you’re defending a good (yet slow) thrower, stay in front.



## 4. Introduction training 4 - the Ultimate rules

So far we've treated both the offensive and defensive side of Ultimate. However, players aren't ready to play actual Ultimate just yet. After all, in Ultimate every player is a referee. So if you want to play Ultimate, you at least have to know the basic rules and how to enforce them. This training teaches exactly that.

### *Prior knowledge*

For this training, players should have followed at least one of the prior three introduction trainings. Otherwise things will be very hard to follow.

### *Concepts that are/aren't treated*

At the end of this training, players should know all the basics of Ultimate. There are no terms anymore that are out of bounds. Feel free to discuss anything. (Well, almost anything.)

### 4.1. Throwing (with travel explanation)

#### *Theory*

We'll again start this training off with a throwing drill, but this time we'll add something to it.

As you know, when a player has the disc in his hands, he may not walk. He should always keep his pivot foot in place. But what happens when a player doesn't obey this rule? What happens when he moves his pivot foot? In this case, any defender may call "Travel!"

The idea behind the Ultimate rules is that no one intentionally breaks them. After all, we're all just playing to have fun together, and cheating isn't fun for everyone. Another main idea is that, whenever possible, we always want to keep on playing. So unless we have to, we don't stop the play.

That's why, when a player calls a travel, the play doesn't stop. Instead, the player that made the travel call should point to where the pivot foot should be. The thrower then establishes his pivot foot there. In the meantime, the game has continued as usual.

But what happens when the thrower has already thrown the disc? Can we then still continue the game as normal? The answer here is no. After all, he may have made a throw which he couldn't have made without travelling. So if a throw has been made, the play stops. The disc is returned to the thrower. The marker then checks whether everyone is ready. If so, he *checks in* the disc. This means he briefly touches the disc and re-starts his stall count with the word "Stalling." The game then continues.

#### *Drill set-up*

We're going to practise this in our normal throwing drill. (The set-up is the same as in drill 1.1.) But this time, the receiver should check whether the thrower isn't making any travels. If he is, the receiver should call "Travel!" as if he is the marker. The thrower should deal with this call as if he is in a real game.

In this drill, throwers should vary their throws on their own. (By now the players should be comfortable enough with the forehand not to avoid it too much.) So there's no need anymore to call out a switch to forehands halfway.

#### *Points of attention*

- » With their newfound freedom, some players might only start throwing backhands. Encourage them to also throw forehands.
- » Walk around and call travels yourself as well. It's important that players start paying attention to travels, not only to those of others but also to their own.
- » Of course, also keep in mind the basic throwing and catching techniques. Players should be improving

on this.

### ***Advanced extensions***

- » If players are doing well, you can challenge them to first make a fake on one side and then throw on the other side. That is, they fake the backhand and throw the forehand or vice versa. Some players, when doing this, unintentionally travel. Now is a good time to get rid of that habit.

## **4.2. Deep receiving (with foul explanation)**

### ***Theory***

Another rule in Ultimate is that physical contact is not allowed. If any player initiates physical contact, then the player that gets contacted can call “Foul!” Of course, if the contact is just circumstantial and didn’t affect the play, you shouldn’t call the foul. But if it did affect the play, then you definitely should.

When a foul is called, the play stops. The players that are involved briefly explain their point of view. Then either of three things can happen.

- » The player that caused the foul agrees with it. In this case, we set up the play as it would have been if there was no foul. This usually means that the fouled player gets the disc.
- » The player that caused the foul disagrees. He indicates so by saying “Contest.” In this case, the game goes back one full step. That is, the disc goes back to the previous thrower and all players go back to where they were when the throw was made.
- » The player that called the foul realizes there actually was no foul. In this case he says “Retract.” In this case, we set up the play as it would have been if the foul had never been called.

After the play has been set up in the appropriate way, it restarts with a check. That is, the marker briefly touches the disc and restarts his stall count with “Stalling.”

### ***Drill set-up***

We’ll practise this in a drill in which fouls are regularly made. This drill is done in groups of 8 to 12 players.

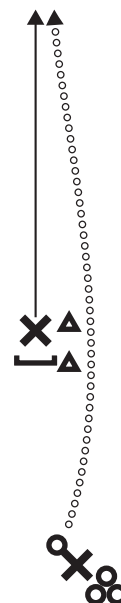
During every execution, we have one offensive players and one defender. The offensive player gets a head start of one meter. (See the figure on the right.) Then both players run deep. An experienced thrower throws a deep pass. The offensive player should catch the disc, while the defender should prevent him from doing so.

When a foul occurs, the fouled player should call a foul. Then the players should follow the normal procedure to deal with it.

After two players have run deep, they should walk/jog back and join the line of waiting players.

### ***Points of attention***

- » Part of the goal of this drill is for players to have fun and for them to get a bit more tired. When players are getting tired, the drill is successful.
- » The most important point of this drill though, is that fouls occur and that players learn to call and discuss them. To encourage fouls from occurring, the deep throws should stay up in the air a bit longer than they should in a normal game. High and floaty passes are perfectly fine here.
- » Sometimes players are a bit unsure on how to deal with a foul call. They don’t know whether a foul actually took place or not. In that case, listen to the points of view of both players and explain them how the rules should be applied.
- » Many players run deep in a very hesitant way. They keep wondering whether the disc is coming or not. If



you see this, tell players that they should simply run deep at full speed. The disc will catch up with them.

### ***Advanced extensions***

- » Depending on how the players are doing, you can increase or decrease the head start which the offense is getting. If the offense always easily gets the disc, put the cones closer together. If the defense is too close, put them further apart.

## **4.3. Break the mark (with marking infraction explanation)**

### ***Theory***

A lot of rules in Ultimate are about marking. We'll now need to look at certain *marking infractions* which a marker can make.

First of all, there's a rule about how close you may be. There should always be at least 30 centimeters - one disc space - between the torso of the marker and the thrower. If the marker is too close, the thrower can call "Disc space!" So what happens then? Should the play stop? Well, no. Why should it?

The first thing which the marker should do is fix his error. That is, he should step backward a bit. However, the infraction caused the thrower to be at a disadvantage. We should fix this too. That's why the marker should reduce his stall count. The first time an infraction occurs. The stall count is reduced by two. For any other infraction during the same mark, the stall count starts over from 1.

So this reduction of the stall count by two, how does that work in practice? Let's say the marker is counting, "three, four, five." Then the thrower calls "Disc space!" What's the next number which the marker says? No, it's not three. It's four. After all, if there wasn't a call, he would've said six. So now he says four. The sequence is therefore, "three, four, five, disc space, four, five," and so on. In the meantime, the game continues as normal.

Is everything clear so far? Good.

The second rule concerns how fast you may count. The time between every count should be one second. If the marker is counting too fast, the thrower can call "Fast count!" The procedure to deal with this is exactly the same. The marker should fix his error and reduce his stall count by two. Or again, if this wasn't the first infraction during the same mark, the stall count starts over from 1.

I'm going to discuss one more rule. A thrower may only have one marker. There may not be any other defender within three meters of the thrower. If there is another defender within three meters, the thrower can call "Double team!" Once more, the procedure is the same. The defense should fix its error and the marker subtracts two from the stall count.

An exception to this rule occurs when you're a defender and you're following someone from the offense. If you are within three meters of another offensive player, then you can never cause a double teaming.

You may be wondering: what if the marker doesn't follow the rules? What if he for example doesn't reduce the stall count by two? In this case, the marker basically has the wrong stall count. This means you call "Fast count!" Now the marker should go back to zero. After all, it was the second infraction. If he doesn't, then you have to resort to calling "Violation!" By calling violation, you stop the play. Then you discuss what happened.

### ***Drill set-up***

This is a complicated set of rules, but players should be able to deal with this almost without thinking. To practise this, we're going to do a break the mark drill, just like in the previous trainings (drills 1.4 and 3.2). However, this time the marker should make various kinds of marking infractions. In the meantime, the thrower should not only break the mark, but also call the appropriate infraction words.

### ***Points of attention***

- » During the explanation, calls like wrapping, straddling, vision, etcetera have not been treated. This is intentional. Otherwise there would be too much information for players to absorb. If players ask questions

about it, you can discuss it with these players specifically.

- » It often occurs that there's a marking infraction (like a disc space) but the thrower throws the disc anyway. Subsequently, the throw is off and the disc hits the ground. If you see something like this happening, you can tell players that this is in fact a turnover. After all, the thrower should call out infractions. If he throws away the disc in the meantime, then that's his own problem. So the best thing which a thrower can do, if there's a marking infraction, is first deal with the infraction, and then continue with the actual throwing.
- » A marker cannot cause a double teaming on his own. To make sure throwers also practise the double team call, feel free to walk around and occasionally set up a second mark at a thrower.
- » The whole counting system is indeed quite complicated if you hear about it for the first time. So there will be players that apply it in the wrong way. Occasionally listen in on stall counts. If there's something significantly wrong, discuss it with the counting player.

### ***Advanced extensions***

- » If players want to know more, you can also tell them more about the rules. For example, you can inform them about wrapping, straddling, vision, and such. Alternatively, point them to the online rule book.

## **4.4. Game time (with pick explanation)**

### ***Theory***

Before we start off with the final game, there's one more rule to discuss.

Let's say that I'm an offensive player, and up ahead I see a group of random other players. What I can do is run straight through this group of players. However, if my defender wants to follow, then he probably needs to knock over a few of these players to do so. This has resulted in some seriously dangerous situations. That's why there's a rule preventing such dangerous situations.

If you're a defensive player and you're trying to follow the player you're defending, but you can't because someone (from either team) is in the way, then you can call "Pick!" In this case, the play immediately stops. The defender then goes to the position in which he would've been if there wasn't someone in the way. When everyone is ready, the marker checks in the disc and the play continues.

To be allowed to call the pick rule, you do have to be within three meters of the player you're defending. So if you decide to run off to intercept a disc and someone is in the way, then you cannot call a pick.

There's one final comment to make here. If something happens in the play, like a score or a turnover, and this event was not affected by the pick call in any way, then this event is not rewinded. So, if there's a score on one side of the field and a pick call on the other side, then the score counts.

### ***Drill set-up***

It's time for a game! The set-up is again the same as in drills 1.5, 2.5 and 3.4.

### ***Points of attention***

- » The pick rule is a bit confusing initially. Players may even find it a "stupid" rule. Ensure them that it is for safety reasons, and that without the rule there would be dangerous situations in the game.
- » It's important that, during the match, players apply the rules correctly. If something happens in a match, guide players with properly dealing with it. Also make sure that it's always clear for everyone what happened. Feel free to stop the play for this when necessary.

### ***Advanced extensions***

- » There are still no advanced extensions of an Ultimate game.

## Training recap

When a player moves his pivot foot, any defender may call “Travel!” If the disc has not been thrown, the player that made the travel call should point to where the pivot foot should be. The play does not stop. If the disc has been thrown, then the play does stop. The disc is returned to the thrower. When everyone is ready, the play resumes with a *check*. (The marker briefly touches the disc.)

When a player initiates contact with another player, then that other player may call “Foul!” Both players briefly explain their point of view. If the fouling player agrees with the call, the play is set up as it would’ve been if there was no foul. If the fouling player disagrees, he says “Contest.” The disc is returned to the thrower. If the fouled player retracts his foul call, then the play is set up as if the call was not made. The game restarts with a check.

When a *marking infraction* occurs, the thrower can call the name of the corresponding marking infraction. This does not stop the play. The marker should fix the marking infraction and reduce the stall count. For the first infraction (during a single mark) the count is reduced by two. For any subsequent infraction, the count is reduced to zero. If the marker doesn’t reduce his stall count to zero, the thrower can call “Violation!” which does cause the play to stop.

A *disc space* can be called when the marker is within 30 centimeters (one disc space) of the thrower. A *fast count* can be called when the marker counts in intervals of less than one second, or sets up a wrong stall count in any other way. A *double team* can be called when there is a defender within three meters of the thrower, without being within three meters of another offensive player.

If a defensive player is trying to follow an offensive player but can’t because someone (from either team) is in the way, then he can call “Pick!” The play stops. The defender then goes to where he would’ve been if there wasn’t someone in the way. The game restarts with a check.

## 5. Basic handler training

In Ultimate, getting the disc isn't really the hardest part. It's passing it on safely to your team mates. That's why a basic handler training is so incredibly important. Without good fundamentals, you won't get anywhere. The goal of this training is to teach players what to do when they have the disc. That is, to teach players basic handler skills.

### *Prior knowledge*

This training only requires a basic knowledge of Ultimate. The introduction trainings suffice for this.

### 5.1. Throwing - ready positions

#### *Theory*

What do you do when you have the disc? Apply the first rule of handling. *Always be in a ready position.* A ready position is a position from which you can immediately throw a disc, just through the snap of a wrist. So there's a forehand ready position and a backhand ready position. The moment you catch a disc, you have to get in either one of them.

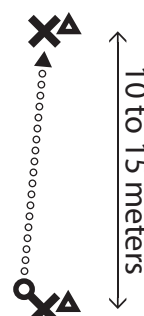
Once you're in a ready position, a good marker will move to shut off your direct throwing option. When this happens, switch to the other ready position. By consistently doing this, you force your marker to keep moving, making sure he is out of balance the moment when your great throwing opportunity arrives.

The goal of this drill is to become comfortable with getting into and switching between ready positions.

#### *Drill set-up*

This is a basic throwing drill. Split the group up in pairs. Every pair gets two cones, 10 to 15 meters apart. (See the figure.) Put one player at each cone. Each pair also gets one disc.

When a player receives a disc, he immediately gets in one ready position. (Say, the forehand ready position.) He then shifts to the other ready position (in this case the backhand ready position) to throw the disc there. Alternate which ready position you use.



#### *Points of attention*

- » A ready position is not a quick fake. It's perfectly okay to stand still for a full second in a ready position.
- » Make the ready position convincing. You really should be able to throw from it. If you're not, you won't fool any good marker.

#### *Advanced extensions*

- » When switching between ready positions, do not use your off-hand to switch your grip from forehand to backhand. This is faster and you can use your off-hand to be more balanced. (If you have trouble with this, grab a disc the next time you're watching a movie. During the entire movie, practise switching your grip without using your off-hand.)
- » Step out a bit further than what you feel comfortable with. Then throw a balanced flat pass. Use your off-hand for balancing. Generally, the further you step out to one side, the further your off-hand will point to the opposite side. By practising this, you will also be able to step out further in a match.
- » As an extra challenge see if you can throw the disc as floaty as possible. With 'floaty' we mean a disc that's moving as *slowly* as possible but is still flying *flat* and *horizontally* on chest height.



## 5.2. The dump procedure - part 1

### Theory

When you have the disc and cannot throw it upfield, there is only one option left: pass the disc to one of your fellow handlers. Such a pass is called a *dump pass*. The receiving handler is called the *dump*. A dump pass is very useful for three important reasons.

- » It resets the stall count. (This reason is mainly important for medium-level Ultimate.)
- » It moves the disc. Defenders that are positioned upfield usually adjust their position to where the disc is. When you move the disc, these defenders are for a brief moment out of position, creating opportunities. (This reason is mainly important for high-level Ultimate.)
- » It gives a brief moment when there is a thrower without a marker. This can create opportunities for a break-side throw or a deep huck. (This is again a reason that's mainly important for high-level Ultimate.)

So when should a player try to dump the disc? For medium-level Ultimate, this can be up to stall count 6. For high-level Ultimate, this should be at most stall count 4, but preferably earlier. After all, after four seconds, you can be sure that the defense has adjusted towards the position of the disc and an upfield pass will be too risky. But seconds are very subjective in the heat of the moment, so we need a less subjective measurement that we can ingrain into our system. In four seconds, a player can do about two ready positions. Hence, the second rule of handling is, *After two ready positions, try to dump the disc*.

So how does a thrower do this? When a thrower has a disc, he should always have a handler 10 meters away from him on a horizontal line. Also, he should never have a fellow player behind him. (Those are the responsibilities of his fellow players.) Step 1 to dump a disc is *See if you can throw the disc immediately towards the dump. If so, do so right away*.

Of course, a dump pass should never be passed directly towards the dump. Then the defense can intercept it. Instead, a dump pass should be a floaty pass in the space behind the dump (see pass 1 in the figure on the right) such that the dump can run into the disc without having his defender come in-between.

### Drill set-up

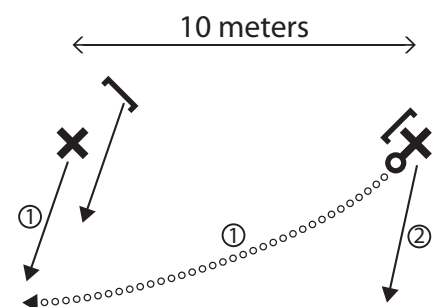
Make groups of four. There will be two handlers, 10 meters apart. They each have a defender. One of them has a disc. The marker sets up a force which puts the dump on the closed side. The defender of the dump is kind of lazy and allows the dump pass.

When the drill starts, the thrower will make two ready positions, 'trying' to get the disc upfield to imaginary cutters. He will not succeed, so he then makes a dump pass. (This is pass 1.) However, the drill does not stop there! Instead, roles reverse immediately. The receiver becomes the thrower and makes two ready positions. The former thrower becomes the dump, and has to position himself as 10 meters distance as soon as possible, awaiting the dump pass. (Also see run 2 in the figure.)

After eight passes (four for each thrower) the offense and defense switch around.

### Points of attention

- » Often throwers wait before they dump the disc. (They might want to make eye contact first, or something like that.) This is not required. In fact, it only helps the defense. An immediate throw works best.
- » The dump should always expect a throw. As such, he should be ready to run for the disc. This means he should be balanced, on his toes, with his legs bent and his center of mass low. (If a dump is often beaten by his defender, then the dump is probably standing up straight. This costs him half a second.)



### Advanced extensions

- » Encourage accurate dump throws. To do this, tell the dump defender to position himself one meter away from the dump, and from there try to intercept the dump pass. Of course, he can only move when the dump does.

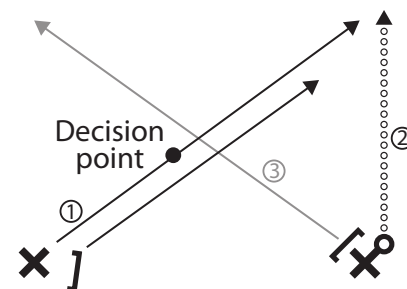
## 5.3. The dump procedure - part 2

### Theory

Step 1 of the dump procedure was, *See if you can throw the disc immediately towards the dump. If so, do so right away.* But what if you cannot dump the disc immediately? In this case, try step 2 of the dumping procedure. *If the dump is not open, fake to the dump. This is the sign to the dump that he should get open.*

For now, let's assume that the dump is on the closed side. In this case, to get open, the dump should *not* run backward (downfield). After all, that option was covered by the defender. Instead, he should run forward (upfield) to the other side of the marker, to receive the pass there.

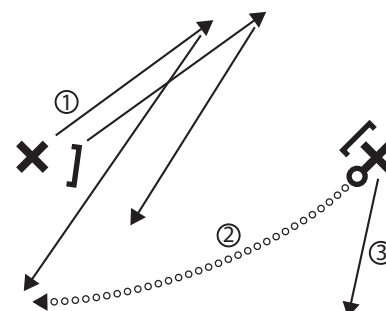
However, when the dump is halfway there, he should check where his defender is. If his defender is covering him very closely, and is likely to block the upfield pass, then the dump should immediately run back to catch the original dump pass.



### Drill set-up

Make groups like in the previous drill (5.2). The thrower sets up two ready positions and then turns his entire body to the dump. The dump will cut forward and halfway through make the decision to either continue at full speed (like in the first figure) or to double back (as in the second figure). He then receives the pass.

Again, this drill does not stop. The receiver immediately sets up two ready positions. The (former) thrower immediately positions himself on a horizontal line (on whatever side is most convenient) 10 meters away from the new thrower.



Again, after eight passes (four for each thrower) the offense and defense switch around.

### Points of attention

- » Often a dump first makes a few short steps in a random direction before he makes his upfield cut. This is useless. In fact, it only alerts his defender that something is going to happen.
- » Often the dump makes a short cut upfield, of only one or two steps, before he cuts back. This is ineffective. Short cuts (of one or two steps) fake out the thrower. Long cuts (of five or six steps) fake out the defender.

### Advanced extensions

- » In the game, the defender of the dump isn't always on the same side of the dump. Often he's on the inside (closer to the thrower) but sometimes he's on the outside (further from the thrower). Set up a drill in which you vary the position of the dump defender. If the dump defender is on the inside, the upfield dump pass should be floaty and into space. If the dump defender is on the outside, the upfield dump pass should be thrown right into the running dump.
- » If this drill is going well, continue with the next one (5.4).

## 5.4. The dump procedure - putting it all together

### Theory

We've seen two dump scenarios now. If the dump is open, you can immediately throw the dump pass. If the dump is not open, the dump runs forward to get the up-line pass. Halfway through, he might turn around to get the original pass anyway.

Now we're going to combine things. The dump defender can do whatever he wants. It's the job of the offense to get the disc to the dump according to the plan we've set up.

### Drill set-up

Again, use groups of four. The dump is again on the closed side. This time the dump defender can set up as he likes. Also like in the last drill, this drill does not stop. After the dump, the receiver makes two ready positions and continues the drill. The (former) thrower again properly positions himself. The marker sets up a force which puts the dump on the closed side.

Again, after eight passes (four for each thrower) the offense and defense switch around.

### Points of attention

- » In this drill, the dump will be tempted to run backward (downfield) to receive a dump pass even before it's thrown. This will only put him in a worse situation. Discourage players from doing this. Instead, encourage them to stick with the plan.
- » Inexperienced players are often also not very decisive with their dump cuts. Quite frequently they jump from one foot to the other a few times before they hesitantly decide to jog somewhere. Encourage these players to instead just burst off forward at full speed. This is much more effective at getting open.
- » Players might ask questions how a dump to the open side works. That is something which is not treated here. Tell players that this will be treated later. (And it will, in drills 12.3 and 12.4.)

The reason that we don't discuss the dump to the open side here is that, in games with beginners, this dump pass is often pretty easy. It'll go quite OK without explicitly treating it. So for now it's more important to focus on other matters. Furthermore, new players need a bit more game sense before they can really understand the dump procedure to the open side.

### Advanced extensions

- » This drill is very game-like already. As such, it is very useful, also for more experienced players. Do not extend it too quickly. Practise until it becomes second nature.
- » To make this drill just a bit more game-like, you can start from a dynamic situation. For example, you can first let the player in the middle of the field pass the disc to the player on the sideline and then start the original drill from there.

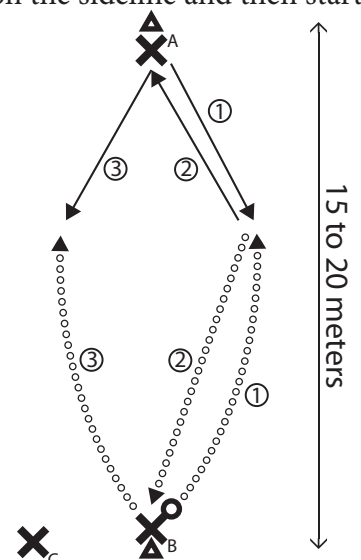
## 5.5. Throwing while tired

### Theory

The third rule of handling is, *Step out properly for every pass and put spin in every throw*. A sloppy pass is never acceptable. This sounds obvious, but many handlers, especially when tired, often forget this. That's why it's very important to regularly practise throwing while you're tired.

### Drill set-up

Set up two cones, 15 to 20 meters apart. Make groups of three. Person A (see the figure) is the runner and starts at one cone. Person B is the thrower. He



grabs a disc and starts at the other cone. Person C is resting. He doesn't do anything.

When the trainer yells "go," the runner runs at full speed at a 30 degree angle towards the thrower (run 1). He receives the disc (pass 1), throws it back (pass 2) and immediately runs back to the cone (run 2). He repeats this, alternating sides. This continues for 45 seconds.

In the 15 seconds that follow, the runner (who is still tired) becomes the new thrower. The thrower becomes the rester. The rester becomes the runner. Do this for six minutes, such that every person has been in every position twice.

### ***Points of attention***

- » Discs should always move along the outside of the field. Hence, for a right-handed thrower and runner in the figure, throw (1) should be a forehand, throw (2) should be a backhand and throw (3) should be a backhand.
- » It is wise to give the thrower two discs, one disc for the drill and one spare disc. In this drill, it always happens that some pass is totally misplayed and a disc flies off somewhere. Instead of stopping, the thrower can pick up his spare disc and continue the drill. In the meantime, the rester can fetch the disc.

### ***Advanced extensions***

- » When the players are in a really good shape, like late in the season, you might cut out the rester and just have the thrower and the runner alternate each other.

#### **Training recap**

Handler rule 1: *Always be in a ready position.*

Handler rule 2: *After two ready positions, try to dump the disc.*

Dump procedure step 1: *See if you can directly pass the disc behind the dump.*

Dump procedure step 2: *If you cannot dump the disc right away, fake the dump throw. This is the sign for the dump to get moving.*

Dump procedure step 3: *The dump runs forward and he either continues to get the disc upfield, or he doubles back to get it in his original position.*

Handler rule 3: *Step out properly for every pass and put spin in every throw.*

## 6. Basic cutter and horizontal stack training

In the previous training, we focused on the basics of handling. The main question was “What do you do when you cannot get the disc upfield?” But of course, the whole point of Ultimate is to get the disc upfield. And for that, you need cutters that know what to do. So the goal of this training is to teach players some fundamental cutting skills. From there, we also derive the horizontal stack play.

### *Prior knowledge*

This training only requires a basic knowledge of Ultimate. The introduction trainings suffice for this.

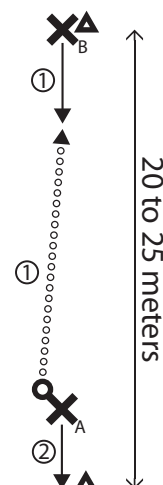
### 6.1. Throwing with running into the disc

#### *Theory*

The first rule of cutting is, *When a disc is in the air, make sure it is in your hands as soon as possible.* That is, you should always keep on running at full speed until you have the disc in your hands. And yes, this even (especially!) holds when a disc is coming at lightning speed towards you.

#### *Drill set-up*

This is a basic throwing drill. Set up two cones 20 to 25 meters apart, like in the figure on the right. Player A (a few meters in front of the first cone) has the disc and throws it to player B (at the second cone). As soon as player A releases the disc, player B accelerates forward for two or three quick steps, to get the disc in his hands as soon as possible. He should only slow down after he has the disc. At the same time, player A jogs back to his cone. Then the set-up is reversed. Alternate forehand and backhand throws.



#### *Points of attention*

- » This is a pretty frightening drill for new players. Many of them will initially run towards the disc, but stop just before they catch it. If you see this happening, first give a pointer to the beginning player. If this doesn't solve the problem, then probably the player isn't ready yet to catch fast incoming discs. To still make this drill effective, ask the thrower to throw discs more slowly/floaty, so that the catcher does run into the disc.
- » When a disc is not coming in perfectly on chest height, but slightly to the side, or slightly higher, tell players to adjust (e.g. jump) such that they have their chest behind the disc. In this way can they still do a proper pancake catch. So even if the disc slips through their hands, they still catch it. And, when you're having your chest behind the disc, you do not have your head behind the disc, which is a good thing from a safety point of view.

#### *Advanced extensions*

- » When players find this drill easy, tell the thrower to throw faster passes. Even top-players have trouble catching lightning throws at full speed.
- » If the players have plenty of energy left, then you can also increase the distance between the cones. Furthermore, tell the thrower to only throw one to two seconds after the runner starts running. This teaches the runner how to deal with catching a disc when he's really running at full speed.
- » Finally, you can also tell the thrower to throw inaccurate passes that have to be caught one-handed. The downside of this is that you spend half the time fetching discs.



## 6.2. Running deep and cutting back in

This drill requires an experienced thrower. That is, someone who can throw deep passes.

### Theory

Imagine you're cutting deep. If you're constantly looking over your shoulder, you cannot run at full speed and you will never get open enough for a deep pass. So instead, you should always run facing forward.

"But then how do you know whether a deep pass is coming?" you might wonder. First of all use your ears. The defense might yell "up," team members might give you pointers or the crowd may get all excited. But secondly, and more importantly, there will be a point where you should think, "If the disc has not been thrown now, it will not be thrown at all." At this point, you should briefly look over your shoulder to check if the disc is coming.

If the disc is coming, you should of course catch it. But if it's not coming, it won't come at all. The best thing you can do then is cut back in at full speed. This (A) makes space for the next deep cutter, and (B) often gets you open on the in-cut.

Summarizing, the second rule of cutting is, *When running deep, at the right time check if the disc is coming. If not, immediately cut back in.*

### Drill set-up

For this drill, make groups of 8 to 14 players. Every group should have one experienced thrower that can throw deep. This thrower will not join the drill itself.

Player A, the defensive player, will start at 10 meters from the thrower. Player B, the offensive player, will start one to two meters further. Player A may not move before player B does. Whenever he is ready, player B should run deep (run 1 in the figure) at full speed. Player A pursues.

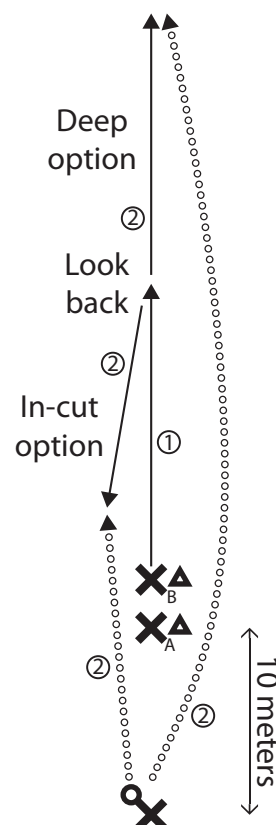
The deep thrower decides to either throw the deep pass or not. (He can mentally flip a coin for this.) At the point when the thrower should have released his deep throw (if he is going to throw it), player B should look over his shoulder to check if the disc is coming. If it is, he should catch it. If not, he should immediately cut back in, and try to beat his defender on the in-cut.

### Points of attention

- » Inexperienced players are often hesitant to run deep at full speed. They for example continuously look over their shoulder. However, hesitant runners are slow runners and will not get open. Ask these players to try and run at full speed anyway.
- » When cutting in, players often slow down before they catch the disc. If they do, remind them of the first rule of cutting.

### Advanced extensions

- » Give the offense (player B) less of a head start, by letting both players start at the same cone. (Player B then only has the head start he got from player A's reaction time.) Furthermore, let the deep thrower only throw the deep throw when the offense is open for the deep cut. This is much more game-like, but it will be harder for the offense to get open deep.
- » Start a discussion with players what the position of their "look-back point" depends on. The idea is to get them thinking about this. The most important answers are the range of the thrower and the amount of space left upfield.



## 6.3. Dumping back to the handler

### Theory

So you ran deep, cut back in and got the disc. What is the best thing you can do? The third rule of cutting states that, *If you get the disc on an in-cut and you can dump it back to a handler immediately (and safely), you should always immediately do so.* There are four reasons for this.

- » The handlers in the team are often better throwers than the cutters, so it's better when a handler has the disc.
- » The handlers are running upfield while the cutter was just running downfield. This means that the handlers already know what's going on upfield. The cutter on the other hand would first have to turn around and subsequently look for potential openings. All in all, this costs roughly two full seconds.
- » When the handler is running forward and gets a disc, he can use this forward momentum to throw a far deep huck.
- » When the cutter gets the disc, his defender is upfield from him, so he *cannot* easily throw the disc upfield. When the handler gets the disc, his defender is downfield from him, so he *can* easily throw the disc upfield. We call such a position, where a handler gets the disc and his defender is still behind him, a *power-position*.

The main goal of this drill is to teach cutters to dump the disc back to a handler after an in-cut. A second goal is to teach handlers to try and get the disc back after they threw it to a cutter.

### Drill set-up

For this drill, we have two cutters and a handler. The handler has a disc. The cutters start 15 to 20 meters away from the handler. At the start of the drill, one of the cutters runs in towards the handler, while the other cutter runs deep. The in-cutter gets the disc from the handler (pass 1). The handler then immediately runs after his disc and gets a short throw back (pass 2). As soon as this throw is made, the in-cutter runs deep. At the same time, the deep cutter should turn around and go for an in-cut.

The drill continues in this way, until the three players have crossed the field. At that point, one of the cutters switches with the handler.

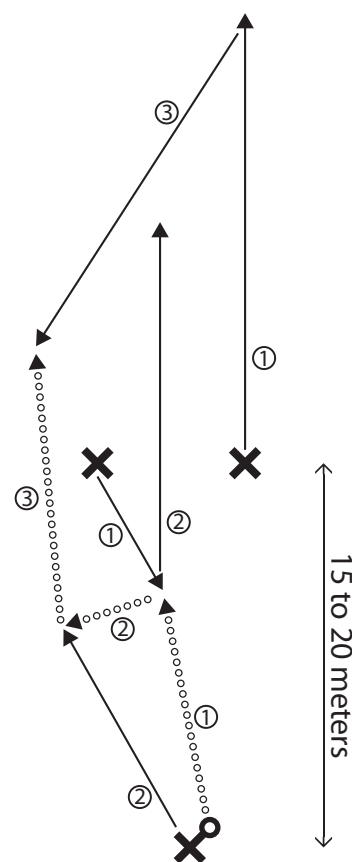
Note that the cutting pattern as shown in the figure on the right is not fully set in stone. Improvisation is allowed - even encouraged. Although deep cuts generally should be as vertical as possible.

### Points of attention

- » Players will have the tendency to make their deep cuts really short and cut back in very quickly. This will make all throws very short, and in the end all players need to run a lot more. If you see this, advise players to make longer cuts as well as longer throws.
- » When trying to get their disc back, handlers should not run directly towards the receiving in-cutter. That will make the short dump pass very hard. Ideally, the short dump pass (pass 2 in the figure) is a floaty pass that travels at least four meters horizontally across the field. Handlers should therefore always aim to run as if they want to pass the in-cutter by at least four meters.

### Advanced extensions

- » Allow incidental deep passes. This encourages players to properly run deep, since the deep pass might actually be thrown.



- » Add a defender for the handler. The goal of this defender is to intercept the disc on the short dump passes. This will make the process of getting the disc back to the handler more realistic.
- » Add a second handler. Then insert as an extra rule that players may not hold the disc any longer than three seconds. (If you include defenders for the handlers, make this five seconds.) So, if there is no direct upfield option for the thrower, he should dump it to his fellow handler.

## 6.4. Switching the cutters

### Theory

In an outdoor match, you generally do not have two cutters, but at least four. If all four of these cutters would be running at the same time, the whole field would be overcrowded. That's why just about every offensive Ultimate strategy has a *resting zone* - a place where cutters can stand still. In fact, the goal of standing still is threefold.

- » As was already mentioned, you create space for your fellow cutters.
- » After a few cuts, you're out of breath and your cuts lose their intensity. Standing still allows you to rest, such that your cuts are at 100% intensity when you get back in the cutting zone again.
- » After a few cuts, you've usually lost your *field sense* - your awareness of what's going on in the field. This field sense is essential to making effective cuts. Standing still allows you to regain that field sense. Your defender has no such luxury, since he is still preoccupied with watching you.

The fourth rule of cutting now is, *After roughly two cuts, run at full speed to the resting zone.* Note that this also means that, when you're not in the resting zone, you're always running at 100% intensity.

We'll be introducing the *horizontal stack play* here. In a horizontal stack, the resting zone is near the sidelines.

### Drill set-up

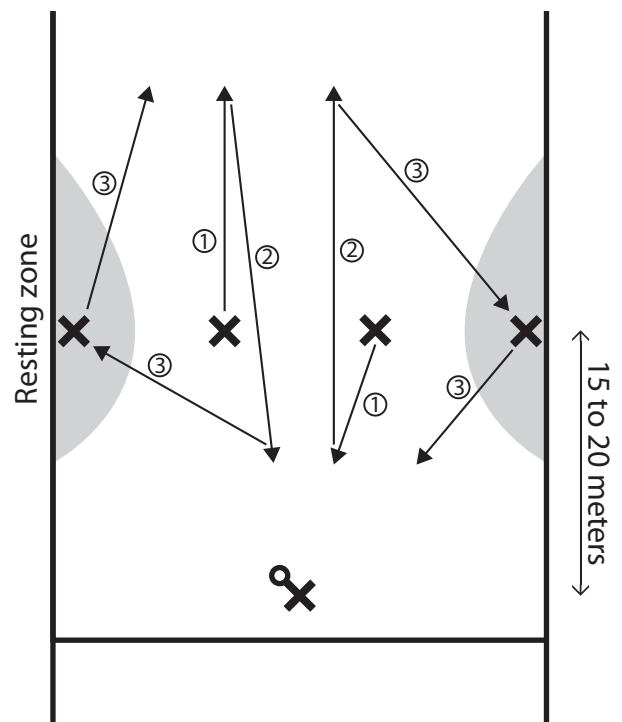
This drill is essentially the same as the previous drill (6.3). However, now there are five players: four cutters and one handler. The cutters all start in one horizontal line, but only the middle cutters are running. The side-line cutters are mostly standing still.

After the middle cutters make roughly two cuts, they will be running at less than 100% intensity. This means they should go to the sideline. While doing so, they should shout "Go!" to the cutters that are resting there. Then it's their turn to run.

Note that the goal of this drill is to teach the cutters the running pattern. This means that the handler should not throw an upfield pass at every opportunity. In fact, he should only throw to, on average, one out of every three in-cuts. Of course, when the handler does throw the disc, he should get it back as soon as possible. In this way, the team again crosses the field.

### Points of attention

- » Cutters will have the tendency to make way too many cuts. Only after four or five cuts do they clear out. Continuously encourage cutters to keep the switching going at a high pace. This makes sure that cutters make more effective cuts (due to a better field sense) at a higher intensity.
- » You never want two cutters running in the same direction. (That is, two cutters running deep, or two cutters running in.) So when a cutter leaves his resting place, he should always run so as not to interfere



with the other cutter.

- » There should always be one person on each sideline. If there is a sideline without a player resting there, it means the field is overcrowded. A cutter that sees this should fill up the sideline spot immediately.

### **Advanced extensions**

- » Like in the previous drill (6.3), you can add an extra handler. Handlers can then pass (dump) the disc among each other. Cutters should adjust their cutting pattern accordingly.
- » Also like in the previous drill, allow incidental deep passes.

## **6.5. Shifting the handlers**

### **Theory**

The horizontal stack so far works really well if every cutter always manages to dump the disc back to a handler. But this isn't always possible. Sometimes the handlers are just too well-defended for a quick dump. This is where the fifth rule of cutting comes into play. *If you get the disc on an in-cut and you cannot dump it back to a handler within two seconds, you become a handler. One of the other handlers should become a cutter.* As a guideline, the handler that's furthest away from the disc should become a cutter.

### **Drill set-up**

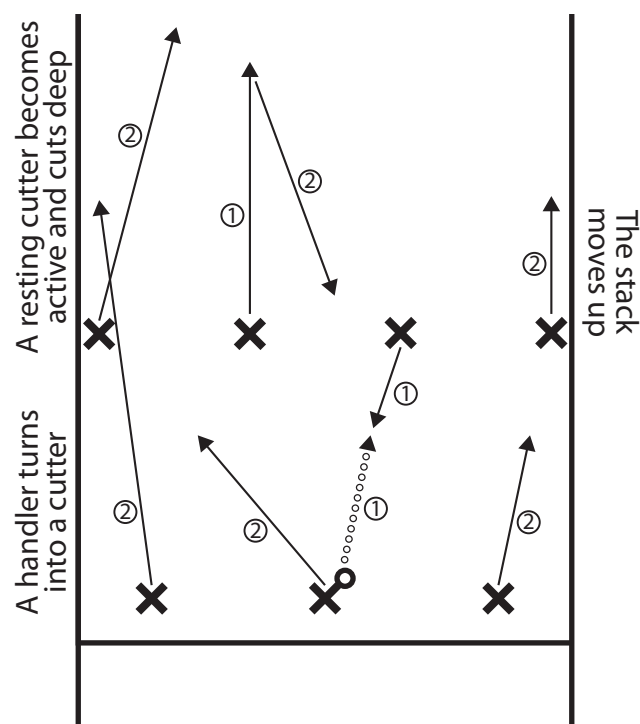
This drill is mostly the same as the previous drill (6.4). However, now there are seven players: four cutters and three handlers. When an in-cutter catches the disc (see run/pass 1 in the figure), he "tries" to dump it back to the handlers, but "doesn't manage to" because the pass is blocked by an imaginary defender. He therefore becomes a handler. One of the other handlers - preferably the one furthest away from the disc - becomes a cutter. Everyone else makes sure all positions are still filled up (run 2 in the figure).

### **Points of attention**

- » If you expect that this drill will cause difficulties for your team, start with the rule that everyone can only jog. If this drill is done on low speed, players can focus more on where they actually need to run to. Later on, when things go well, let players run at full speed again.
- » When a cutter is turned into a handler and subsequently throws the disc to another cutter, he often has the urge to get back to his job as a cutter. If you see this happening, prevent it. Once a cutter has turned into a handler, he stays on as handler. Otherwise we suddenly have too few handlers and (what's worse) too many cutters.
- » Keep in mind that there should always be three handlers, two running cutters and two resting cutters. If there is a different set-up for longer than one second, someone is doing something wrong. See if you can find and fix the error.

### **Advanced extensions**

- » Merge this drill with the previous drill (6.4). That is, give in-cutters that catch a disc the choice whether to dump the disc back immediately to a handler or not. If the cutter dumps the disc, he goes back to cut-



ting, like in drill 6.4. If not, he becomes a handler and a handler moves up to be a cutter, like in this drill.

- » Add defenders to all players. Let the defense play on a less-than-full intensity. So in fact, play a game with a horizontal stack in which the defense is a bit lazy. This allows the offense to grasp the horizontal stack play better and better. As the playing improves, let the defense increase their intensity until everyone is playing a normal game.

### **Training recap**

*Cutter rule 1: When a disc is in the air, make sure it is in your hands as soon as possible.*

*Cutter rule 2: When running deep, at the right time check if the disc is coming. If not, immediately cut back in.*

*Cutter rule 3: If you get the disc on an in-cut and you can dump it back to a handler immediately (and safely), you should always immediately do so.*

*Cutter rule 4: After roughly two cuts, run at full speed to the resting zone.*

*Cutter rule 5: If you get the disc on an in-cut and you cannot dump it back to a handler within two seconds, you become a handler. One of the other handlers should become a cutter.*

## 7. Vertical stack training

After learning the horizontal stack, we might as well continue with a basic vertical stack training. How should you set up a vertical stack? What are the responsibilities of each player in it? And what's the cutting pattern? The goal of this training is to figure that out.

### *Prior knowledge*

This training requires knowledge of basic cutting procedures, discussed in training 6.

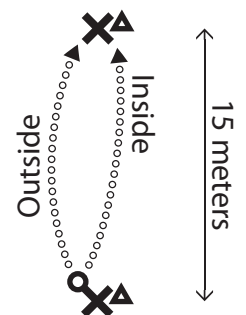
### 7.1. Throwing inside and outside throws

#### *Theory*

The great thing about Ultimate is that you can throw curved throws. Doing this well can give you tremendous advantages in a match. So how do you throw such a curved throw?

It all depends on the angle of the disc. And this angle is mainly the result of how you position your lower arm. If you throw with your lower arm pointing partly upward - the bottom of the disc points outward - then your disc will curve one way. We call this an *outside* throw. But if your lower arm points downward - the bottom of the disc points inward - then your disc will curve the other way. We call this an *inside* throw.

The figure on the right shows the curvature of an inside and an outside throw, when throwing either a right-handed backhand throw or a left-handed forehand throw. To see the curvature of a right-handed forehand throw or a left-handed backhand throw, mirror the image.



#### *Drill set-up*

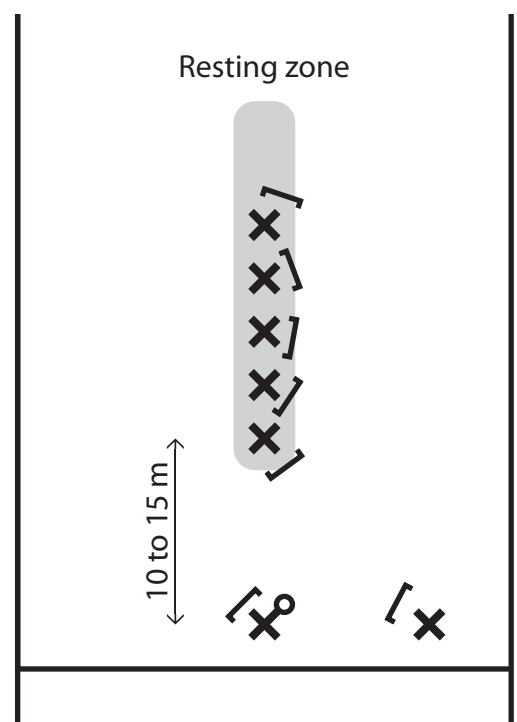
This is again a basic throwing drill. The distance between throwers is about 15 meters. (See the figure above.) Throw 15 inside backhands, 15 inside forehands, 15 outside backhands and 15 outside forehands. If a pair is finished before most other pairs are, players can continue throwing whichever throw they found the hardest.

#### *Points of attention*

- » For beginning players, the throws are likely to be a bit wobbly. This especially holds for the difficult inside throws. Advise them to put more spin in their throws.
- » Beginning players generally have trouble with the inside throws. These throws often end up flat. The cause is usually that they don't keep their lower arm low enough. It should point diagonally to the ground. Alternatively, it might happen that they do lower their lower arm, but twist their wrist in a funny way such that the disc is still horizontal when they throw it. This should not be the case. When lowering the lower arm, the wrist should not change its angle with respect to the lower arm.

#### *Advanced extensions*

- » For experienced players this drill shouldn't be so hard. They can make it harder by trying to step out as far as possible. Being able to do this in a match means you can throw very powerful break passes.





## 7.2. Responsibilities of the first in the stack

### Theory

In a horizontal stack, the resting zone is at the side of the field. In a vertical stack, the resting zone is in the middle of the field. (See the figure on the previous page.) That's why, in the vertical stack play, all cutters spread out in one vertical line across the middle of the field.

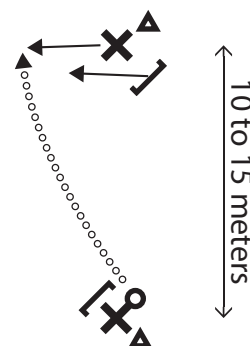
The distance between the thrower and the first in the stack is 10 to 15 meters. It is the responsibility of the first player (who is known as the *anchor*) in the stack to set up the stack at the right place. If the stack is too close to the thrower, or too far away from him, then it's the fault of first in the stack. Also, the stack should be in the middle of the field and *not* wherever the disc happens to be. If the stack is not in the middle of the field, then the first in the stack is screwing up as well.

A second responsibility of the first in the stack is to watch out for (inside) break throws. It might happen that the marker makes a mistake and, for a brief moment, allows the thrower to throw a pass to the closed side. In this case, the thrower should be able to take advantage of this and throw the break pass. It's the responsibility of the first in the stack to always expect such a throw, and to catch it when it comes.

### Drill set-up

For this drill we need four players: a thrower, a marker, an offensive player (the first in the stack) and a defender. They all set up as they would in a normal Ultimate match. The task of the thrower is to make a floaty pass to the closed side. The first in the stack should then catch this disc before his defender manages to.

Do this drill in the same set-up five times. Then switch positions in any way that logically makes sense.



### Points of attention

- » The first in the stack should expect the throw and be ready to catch it. First of all, this means that he should not run before the throw is made. Secondly, it means that, while waiting, he should be low and on his toes. In this way, he can instantly run when a throw is made. If he is waiting with his legs straight, then he is not able to instantly run to catch the disc. He will always be half a second late.
- » In this drill, defenders will often forget the actual “game situation” and adjust so as to only stop the throw that the thrower wants to make. If you see this happening, remind the players that this drill is not about defense. It's about offense. The defense is only there to make the drill a bit more realistic.

### Advanced extensions

- » This is a hard drill and experienced players can still find it a real challenge to do this drill well. So don't extend this drill too quickly.
- » If you really want an extra challenge, then vary the way you make the break-throws. For a forehand force, try throwing hammers and left-handed backhands (if you're right-handed). For a backhand force, try throwing high-release backhands and scoobers.

## 7.3. Responsibilities of the last in the stack

### Theory

So the first player sets up the stack. What do the other players do? They all make sure they are three meters away from the player in front of them. This is the ideal distance. If it's less, then your stack is too clogged up, resulting in lots of pick calls. If it's more, then the last guy in the stack is too far away, which means there is no deep threat anymore.

But the last guy in the stack also has an extra responsibility. He needs to make sure that there is always some-

one cutting in to the open side. This usually means he should run in to get the disc on an in-cut. Sometimes he will get the disc. But if he doesn't, what should he do? Go back to the stack? Definitely not! If he does, his defender will realize that he's not a threat. Seizing the opportunity, the defender is likely to stick around and block all upfield throws.

Instead, the cutter should clear out in a dangerous way. If his defender does not follow, he would simply get a pass from the thrower. The best way to do this is to run deep. If the defender does not follow, the thrower can throw an easy deep pass to the cutter.

An other option is to run to the closed side, past the front of the stack. If the defender does not follow, an around break pass or a hammer pass will follow. Normally these are difficult and inaccurate passes. But if the cutter doesn't have a defender anyway, this isn't much of a problem.

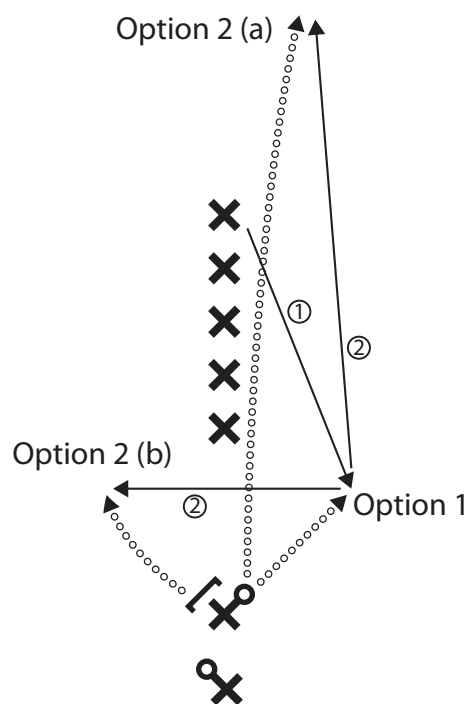
### Drill set-up

For this drill we need groups of 8 players. We have a stack of 5 players, a thrower with a disc, a marker and a player with a disc waiting behind the thrower. (If your groups are a bit bigger, have more players with discs waiting behind the thrower. Or if you need smaller groups, use a stack of 4 players instead.)

The last person in the stack cuts in (run 1 in the figure). At this point, the thrower can choose whether to throw the disc to the in-cutter (option 1) or not. If he does not, the cutter should clear out (run 2). This time, the cutter can choose to run deep (option 2a) or to run to the closed side (option 2b). No matter where he goes, the thrower throws the disc to him.

As to rotation: when a cutter catches a disc, he runs with the disc to the back of the waiting line. The thrower becomes the marker. The marker becomes the first in the stack. Everyone else in the stack moves up one spot.

Note that this drill can take place at a very high pace. The last in the stack does not have to wait with his cut until everyone is set up properly. In a real match, you should also be cutting before everyone has set up.



### Points of attention

- » Players often have trouble positioning the stack. There should be three meters between each pair of players in the stack. In reality, this often becomes four to five meters. If this happens too much, stop the drill and point it out to players.
- » When players realize option 1 does not work and go for option 2b (running to the closed side), they often make a *banana cut*. That is, they don't cut in a straight line. Instead, it's best to make a *sharp cut*. Quickly slow down to zero velocity and then quickly go at full speed in another direction. This is the best way to get rid of a pursuing defender.
- » Inexperienced players often use an inside break pass to throw option 2b. This throw is nearly impossible to catch. A more appropriate pass would either be a hammer throw or an around (outside) break pass.

### Advanced extensions

- » Remember that it's the responsibility of the last in the stack to make sure that there is a good in-cut. But let's say that you're in a game situation and player number 4 (the second-last in the stack) is being very poorly defended. In that case, it makes sense if player number 4 cuts in and not player number 5 (the last in the stack). At this point, player 5 sees that player 4 cuts in. It means his responsibility is fulfilled and hence he doesn't have to cut in for the next few seconds.

To incorporate this in the drill, tell everyone that players 3 and 4 in the stack may cut in as well, on their

own initiative. If that happens, player number 5 should of course not cut in.

Alternatively, player 5 may also send one of the other players in if he thinks they're in a better situation to do so. To do this, he should simply call, "[name] in!" The respective person should immediately trust the judgement of his teammate and cut in.

- » If you want to further extend this drill, move on to the next drill (7.4).

## 7.4. If cuts don't work out

### *Theory*

Let's say that you cut in, don't get the disc and cut deep. Cutter rule 2 says that, at the right time, you should check if a deep pass is coming. If it's not coming, you should cut back in. But where to? To the open side? Not really. There's already a cutter there and you don't want to get in the way. To the stack then? No! Then you'd just be the last in the stack again, and you'd have to run again. That's not a good thing if you're still out of breath from your last cut.

No, what you need to do is cut to the closed side. After you've done that, you should get back in the stack, preferably on position 2. When you do this, all the others move up one spot in the stack. This gives you some time to rest and regain your field sense, before you eventually also drift to the back of the stack and have to cut again.

### *Drill set-up*

This drill is essentially the same as the previous drill (7.3). The difference is that the thrower does not necessarily have to throw option 2. Instead, he may also decide to hold the disc. In this case, the runner should get back into the stack on position 2, coming in from the closed side. (Also see the figure on the right.) In the meantime, the next cutter should already be running.

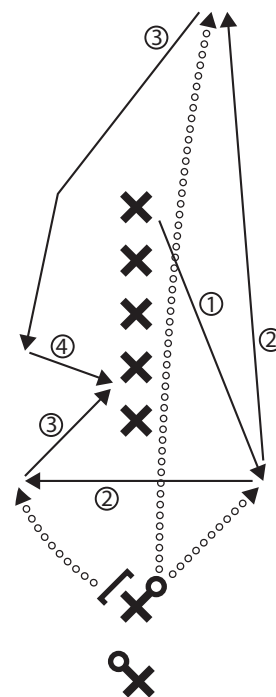
### *Points of attention*

- » In this drill it's also possible that a player does not get a disc at all. This means that the (previously) second-last player in the stack also needs to cut in. Initially, this will be confusing. As players get used to this drill, the cuts should come in at a faster and more continuous pace. And even when there is temporarily no thrower - because a pass has just been made - there should still be cuts going on.

### *Advanced extensions*

- » Apply the advanced extension of drill 7.3, allowing other players in the stack to cut in as well.
- » Allow the throwers to also throw an inside break pass (of drill 7.2) to the first in the stack. After all, it's the responsibility for the first in the stack to watch out for inside break passes. When this happens, the person that catches the disc runs to the back of the waiting line, as usual.

Note that an inside break pass should not be thrown if a cutter just ran to the closed side (option 2b).



### Training recap

In a vertical stack, the resting zone is in the middle of the field.

The responsibility of the first player in the stack (the *anchor*) is to properly position the stack in the middle of the field, 10 to 15 meters upfield from the thrower. He should also always be ready to catch an inside break pass.

The responsibility of the last player in the stack is to make sure that there is always someone cutting in to the open side. If this cutter does not get the disc, he should clear out in a dangerous way, which usually means running deep. Subsequently, he should re-enter the stack from the closed side in position 2.

All other players in the stack are 3 meters away from the player in front of them. These players are catching their breath and regaining their field sense.

## 8. Basic defense training

Defense is something that's often neglected in trainings. But it's crucial to regularly focus on defense. This training does exactly that. The first half concerns marking training and the second half concerns cutter training.

### *Prior knowledge*

This training only requires a basic knowledge of Ultimate. The introduction trainings suffice for this.

### 8.1. Break the mark without hands

#### *Theory*

When marking, you should first get your posture right. These are some focus points.

- » Get your center of mass low.
- » Keep your upper body upright (near vertical).
- » Be on your toes, not on your heels.
- » Keep your feet roughly a shoulder's width apart.

You also need to make sure you move in the right way.

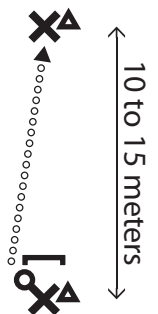
- » Move with your entire body and not just your upper body. You should always keep the center of your body well between your two legs.
- » Make sure your feet stay a shoulder's width apart. (If you get in a near-split posture, you're totally immobile.) This means that, if you move to the right, you first have to lift your left leg, and vice versa.

#### *Drill set-up*

This is a basic break the mark drill, but without using hands. You make groups of three: a thrower, a marker and a receiver. The thrower and the receiver are 10 to 15 meters apart. The thrower's goal is to pass the disc to the receiver. The marker should make this as hard as possible. And, to practise the footwork, the marker may not use his hands. He should keep them behind his back.

As to rotation: the thrower becomes the next marker. So players always run after their throws. Halfway through the drill, call out to switch markers, such that players are not always marking the same person.

Finally, only backhand and forehand throws are allowed. Allowing fancy knife/hammer throws will defeat the purpose of this drill.



#### *Points of attention*

- » Pay attention that players apply the marking principles mentioned above. If they do not, point it out.
- » This drill is not really about the thrower, but you can still pay some attention to it. What a lot of new players do is pivot like crazy: their non-pivot foot goes almost everywhere. If you see this, advise them to only pivot calmly (like once every one or two seconds) and instead mostly use their upper body for fakes. A quick rotation of the shoulders can also fake out a marker.

#### *Advanced extensions*

- » Allow footblocks. To make a footblock, it is crucial that your foot moves slightly backward instead of forward. The reason for this is threefold. First of all, it prevents you from kicking the opponent's hand and causing a serious injury. Secondly, if you kick backward, you are more likely to make the actual footblock since you have more time to block the disc. And finally, if the thrower faked and didn't throw the disc,

then you can recover and set up a proper mark again much faster than if you stepped forward.

## 8.2. Break the mark

### Theory

Now let's consider how you hold your hands while marking. These are some focus points.

- » *Keep your hands wide.* The wider you are, the more daunting you come across to the guy you're marking which increases the pressure. Furthermore, if your hands are already wide, it takes less time to extend your arms for a handblock.
- » *Keep your hands low.* The reason for this is threefold. First of all, it has been evolutionary determined that you can lift your hands really quickly (to protect your face) but you cannot drop them very quickly. Secondly, it is much more advantageous to hit a disc from below than to hit a disc from above. If you hit a disc from above, it will often still fly upward, while if you hit it from below, you stop the spin and the disc crashes into the ground. Finally, statistics show that roughly 80% of all break-throws pass under the arms of the marker. Hence, don't be a fool and keep your hands low.
- » *Keep your hands backward.* If you keep your hands backward, you generally hit the disc (make the handblock) instead of hitting the thrower's hands (make a foul). And what's more: the further backward your hands are, the more time you actually have to make the handblock.

So summarizing: keep your hands wide, low and backward.

### Drill set-up

This drill is the same as the previous drill (8.1), but now the marker may use his hands.

### Points of attention

- » The same points of attention apply as in the previous drill.
- » It often happens that a marker sets up at 2 to 3 meters from the thrower. Doing this makes it harder for the thrower to throw a break pass exactly behind the marker. So for this drill this actually works. However, in a match this is a bad idea, because a break pass slightly to the left or to the right of the marker is now easy. To keep the drill game-like, advise players that are doing this to move closer to the thrower.

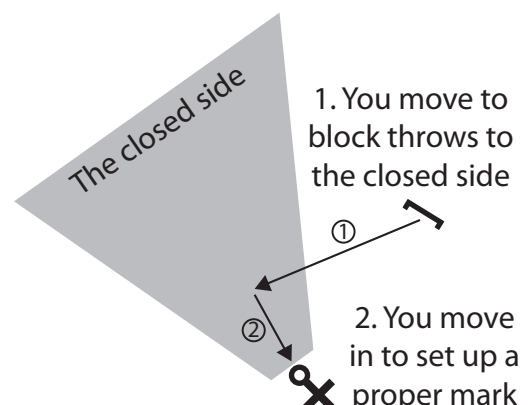
### Advanced extensions

- » Allow footblocks. For the exact procedure, see the advanced extension of the previous drill (8.1).
- » Tell players to vary the height at which they release a disc. Doing a high-low fake (faking a high-release pass and then quickly going for a low-release pass instead) can be very effective at times and is definitely worthwhile to practise.

## 8.3. Triangle break the mark

### Theory

Now we know how to mark a thrower. But the process of setting up the mark still requires some attention. Let's say that the player you're defending just caught the disc. How do you set up the mark? Run straight towards him and then set up a mark? No! Remember: your task is to block throws to one half of the field. So that's also the first thing you should do. After that, you can close in to set up a proper mark. The exact running procedure for a forehand force can be seen in the figure.



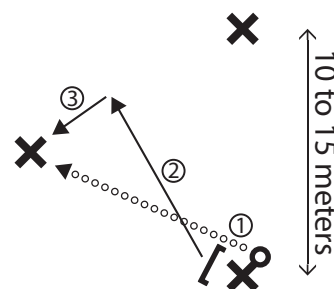


### Drill set-up

For this drill you need four players. Three throwers set up in a triangle, with 10 to 15 meters in-between. They will be throwing the disc around clockwise. One marker tries to prevent those throws by setting up a proper mark.

When a throw (pass 1 in the figure) has been made, the marker immediately moves to set up the next mark. To do this, he should first cut off the dangerous throwing option (run 2) and then close in for the mark (run 3).

As to rotation: a marker stays on as marker for four throws. After the fourth throw, the thrower becomes the new marker. Halfway through the drill, switch the disc rotation and throw counter-clockwise.



### Points of attention

- » Despite it being the focus of this drill, inexperienced players still find it hard to run to the throwing lane, instead of running to the thrower. Keep encouraging players to first stop the dangerous throw and only then close in for the mark.
- » Also still pay attention to all the focus points of marking itself.

### Advanced extensions

- » When the drill is going well, tell throwers that they do not need to wait until the mark has been set up. If the marker is late, they can simply throw the disc right away. This encourages markers to set up the mark quickly and in the right way and it makes the drill more game-like.

## 8.4. In-field cutter defense

### Theory

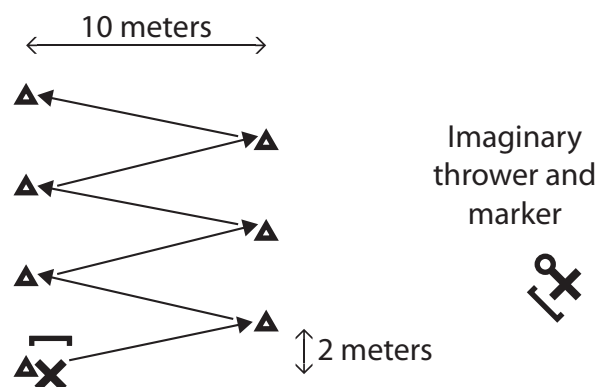
Let's say you're defending a cutter. Where do you position yourself? Evidently, on the open side. And, to be sure that the guy you're defending won't get open on the open side, you keep some margin. Say, you're one to two meters away from him.

Now the offender starts cutting. He runs in, or he runs deep. How do you move along? If he runs slowly, you can use side-steps. If he runs at full speed, you also have to turn and run at full speed. To do this well, you need to practise your steps. And that's exactly what this drill is for.

### Drill set-up

Make groups of 6 to 10 players. Set up a zig-zag pattern of cones, 10 meters wide, and each cone two meters past the next one. During every drill execution, one offensive player will run this zig-zag pattern, as if he is cutting for an imaginary thrower. The defensive player is always one to two meters away on the open side and follows the offensive player, all the while keeping this margin.

- » First let everyone do four runs (two for each role) while the offensive player may only jog. The defensive should follow with low side-steps.
- » Then let everyone do four runs in which the offensive player jogs while going one way and runs at full speed while going the other way. If the offensive player runs at full speed, then the defender also has to turn to follow at full speed.
- » Finally let everyone do four (or more) runs in which the offensive player runs at full speed in both direc-





Every time the offense gets four opportunities to score. After that, switch positions in any way that logically makes sense.

### ***Points of attention***

- » The main thing which will go wrong in this drill, is that the defender of the endzone cutter will try to shut down both sides of the field. That is, the cutter will cut to the closed side, the defender will follow, the cutter will suddenly cut to the open side, and what follows is a very easy pass on the open side. Score. To prevent this, the defender should trust the marker and allow the cutter to run to the closed side. Of course he should follow, but always in such a way that, if the cutter cuts back to the open side, the defender can still beat him to it.
- » You might have experienced players in your training that already know the best way to play this drill on offense. (Stand still and wait for the handler to throw.) However, this drill is about defense, so ask the offensive player to vary the strategy which he's applying.

### ***Advanced extensions***

- » Tell the defender of the cutter to experiment with what he looks at. Does he only look at the cutter? Does he try to set up a split view? Does he mainly look at the disc? In general, the defender should only look at the cutter. Only when there's an "up" call can he briefly look around to see where the disc is going. You can only apply a split view when you do not consider the cutter much of a threat.

#### **Training recap**

When marking, you stand on your toes, your feet always a shoulder's width apart. Your center of gravity is low and is positioned right between your two feet. Your hands are wide, low and backward. When setting up a mark, you first block dangerous throws. Then you close in for the mark.

When defending a cutter, you trust the marker to do his work. That's why you're always on the open side of the cutter. You keep a margin and you maintain this, even when the cutter is changing directions. Finally, you never let the cutter out of your sight, even for a brief moment.

## 9. The endzone play

When you get close to the endzone, you're very close to scoring. In fact, you should be able to score at least 90% of the times. But strangely enough the scoring part often goes wrong. It's because players are too eager to score and because players don't know what to do then they're close to the endzone. This latter reason can be solved by practising an endzone play with your team. There are many endzone plays around. We'll discuss one of them.

### *Prior knowledge*

This training requires knowledge of the basic handling procedures discussed in training 5.

### 9.1. 60-medley

#### *Theory*

You've got to keep on practising your throws. And that includes throwing in various ways.

#### *Drill set-up*

This is again a basic throwing drill. The distance between throwers is 15 meters. Players should throw 10 flat backhand throws, 10 flat forehand throws, 10 inside backhand throws, 10 inside forehand throws, 10 outside backhand throws and 10 outside forehand throws. When a pair is finished before most of the others, they can practise the throw which they thought was the hardest.

#### *Points of attention/Advanced extensions*

- » See drill 7.1 for points of attention and advanced extensions. Players have (roughly) done this drill before, so they should know the drill.

### 9.2. One on one

#### *Theory*

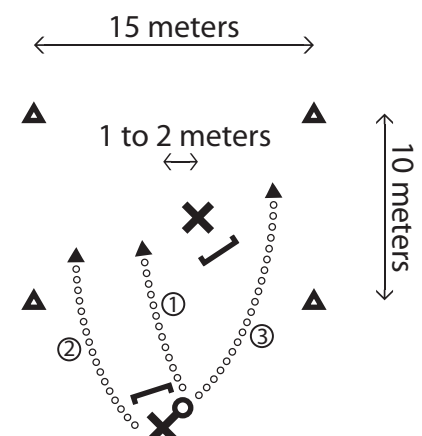
Imagine that you only have one cutter in the endzone. What's the ideal way to score then? In the last training (drill 8.5) we did a drill which focused on endzone defense. Upon executing this drill we saw that, if the cutter runs a lot, then there are often miscommunications between the cutter and the thrower. We need to prevent that.

The solution is to have the cutter stand still. His job is to wait until the thrower throws a disc. And to make this as easy as possible, the cutter should stand still and position himself slightly (one to two meters) to the open side.

#### *Drill set-up*

For this drill we need four players. Make an endzone of 10 by 15 meters. (See the figure on the right.) Put a thrower with a marker 5 to 10 meters outside of the endzone. Put an offensive cutter with a defender inside the endzone. The goal of the offense is to score in one pass. The goal of the defense is to prevent this.

To score, the offensive cutter positions himself slightly to the open side. Furthermore, he is not allowed to run before the disc is thrown. Based on the positions of the defensive players, the thrower can then choose to throw an inside break throw (pass 1), an around break throw (pass 2) or an floaty throw to the open side (pass 3). The first of these is the most



likely to be used.

The offense gets 5 attempts to score. After 5 throws, change positions in any way that logically makes sense.

### ***Points of attention***

- » In this drill, defenders should still act as they would in a match. So the defender of the cutter should not turn around and solely look at the disc. After all, if he would do that in a match, the cutter would simply run off for an easy pass. If you see players looking too much to the disc, ask them to act more game-like.
- » Ideally, passes are floaty. If the pass hangs in the air on chest height, the cutter can simply run in and catch the disc whenever he likes. If you see players throw lightning-quick passes, advise them to throw floaty passes instead.
- » The marker should yell “up” whenever a disc is thrown. This helps the upfield defender.

### ***Advanced extensions***

- » Give players the challenge to score as many points as possible. You’d want a score rate of at least 90%. So out of every 10 chances which a pair gets to score, they should score at least 9.

## **9.3. Dump and run**

### ***Theory***

Imagine that, in the previous drill, the defense is doing a very good job, and it’s just too risky to throw the disc into the endzone. What do you do then? Simple. You dump the disc.

If you can easily dump it to the closed side, you should immediately do so. The handler on the closed side can then catch the disc and pass it into the endzone. However, often this closed-side dump isn’t all that easy.

Instead, you can dump the disc to the open side. When you do, a very powerful opportunity arises. You can immediately run upfield to the corner of the endzone to receive the pass there and score. That’s what we’ll be practising with this drill.

### ***Drill set-up***

For this drill we need four players. If there’s enough space on your field, set up life-size endzones, of 18 by 37 meters. The thrower and his marker start at the middle of the field, 5 to 10 meters outside of the endzone. There is a dump on the open side, also with a defender.

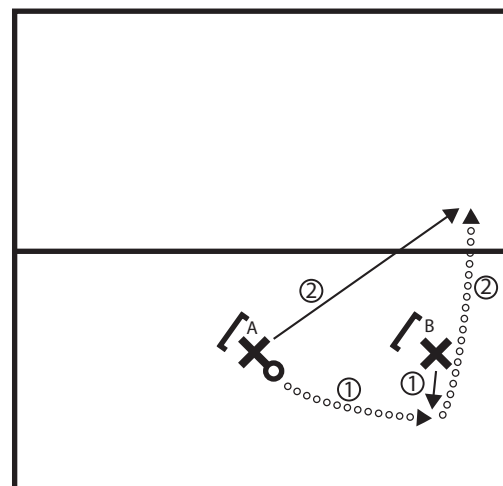
The thrower (handler A) first tries to throw the disc to the imaginary cutter upfield. At stall count 3, he will realize that it’s not possible. At that point, he dumps the disc to the open side (to handler B) and immediately runs forward to score in the corner of the endzone.

As to rotation: after an execution of the drill, the thrower (handler A) becomes the dump and the dump (handler B) becomes the new thrower. They each do 4 passes like this. Then offense and defense is switched.

Note that this drill is about the offense. The defense therefore does not put on a lot of pressure. Of course, if the offense is doing a really good job, the defense can increase the pressure.

### ***Points of attention***

- » The process of throwing and running right away is hard. Especially the inexperienced players often like to watch where their throw is going before they remember to run. Encourage them to run the moment



they release the disc.

- » The throw into the endzone (pass 2 in the figure) should be floaty. It should be a pass which the receiver can run into. Throwing such a floaty pass under stress is hard. Encourage players to try anyway.

### ***Advanced extensions***

- » Ideally, to run before your marker can follow, you should start your running motion already while you are throwing. For a backhand throw this is still manageable. For a forehand throw this is very hard. On a force forehand, give experienced players the task to either throw a forehand throw while starting their running motion, or instead use a left-handed backhand throw.

## **9.4. Getting off the sideline**

### ***Theory***

What can the defense do about the dump-and-run strategy we've discussed so far? If it's executed well, they can only do one thing. When a defender realizes that the player he's defending will get open on the open side, he can call "Strike!" This is a signal to the marker that he should close down the open side for a single second.

If the marker does this, then the upfield pass is blocked. But it does mean that the middle of the field is completely open. The new thrower should immediately seize the opportunity and get the disc back to the middle of the field. After all, it's a lot better to have the disc in the middle of the field than to be stuck on the sideline.

But who should he throw the disc to? The evident answer here is the endzone cutter. This cutter should run to get the disc in the middle of the field.

### ***Drill set-up***

For this drill we need six players. We have the two handlers (with defenders) of the previous drill (9.3) and the cutter (with defender) of the drill before that (9.2).

The thrower (handler A in the figure) tries to get the disc to the cutter (C) but "fails." He then dumps the disc to the open side (to handler B) and immediately runs upfield. His defender (defender A) realizes he will get beaten on the open side, so he calls "Strike!" The new marker (defender B) now shuts down the upfield pass (movement 2 of defender B). At this point, the cutter (C) runs to get the pass back to the middle.

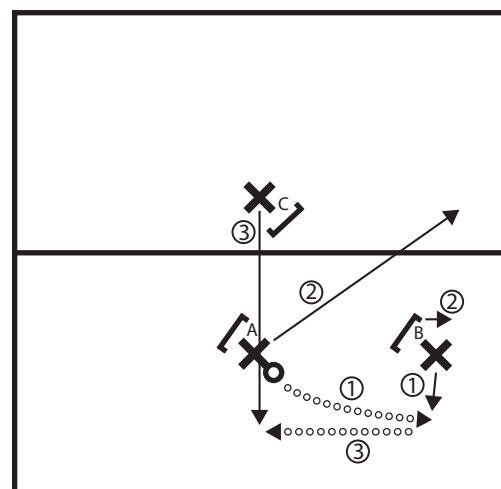
As to rotation: after a single execution of the drill, pair A takes the position of pair C. The drill immediately continues. After four executions (so two throws for pair A and two throws for pair C) one pair switches with pair B. After three of such series (so after twelve drill executions) offense and defense switch.

### ***Points of attention***

- » Initially, some players will forget to call "Strike!" Quite probably their fellow players will remind them of this. If not, do so yourself.
- » The timing of the second dump-cut (run 3 in the figure) is crucial. It shouldn't be too early, nor too late. Cutter C should start to run roughly at the moment at which defender A calls "Strike!"

### ***Advanced extensions***

- » If this drill goes well, continue with the next drill (9.5).





## 9.5. Putting it all together

### Theory

It's time to put everything together now. We have seen the positions of three offensive players, but where are the other four? Ideally, we want to keep our one-on-one situation in the endzone. We can add a third handler, but the other three players need to stay out of the way.

The best way for that is to put these players in the back of the endzone. (See the figure on the right.) These players will feel very useless, but their main task is to keep their defender away. If they do that, then they're most certainly useful.

So where do you want the disc to be? Having the disc in the center is pretty good, as we already saw. Having the disc trapped on the sideline (on the right in the figure) is not good. If that happens, you want to get the disc back to the middle right away. Having the disc on the other side (on the left in the figure) is really good though. It creates all sorts of opportunities.

We're going to put all this knowledge we've gathered so far together in this one final drill.

### Drill set-up

For this drill we need eight players. We skip the three offensive players on the back line, including their defenders. The idea is pretty simple. The offense gets eight chances to score. (Rotate positions after every two attempts.) After that, the defense gets eight chances to score.

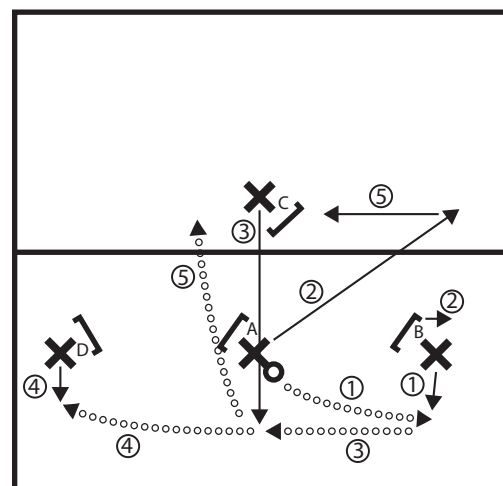
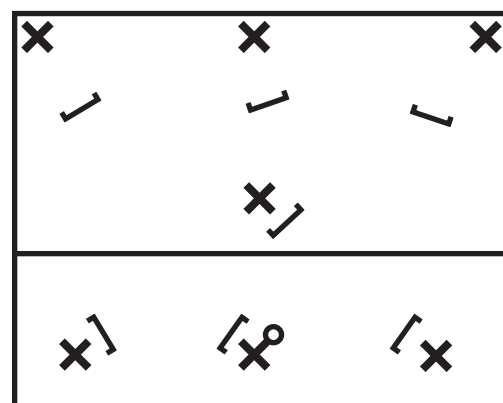
To score, option one is the direct pass into the endzone, like in drill 9.2. If that's too risky, option two is to dump the disc (pass 1 in the figure) and get the upfield pass into the endzone, like in drill 9.3. If the defense shuts that down too, the offense should get the disc back to the middle (pass 3 in the figure on the right). This middle player (cutter C) should try to get the disc to the closed side (pass 4). If the defense prevents this option as well, because defender C jumps in front of it, then the offense can score with an inside pass (pass 5) from player C to player A (run 5). If that doesn't work either, then we're right in the situation which we started from, and we can try it all again.

### Points of attention

- » This drill involves a very complicated plan. It might take some time before players understand it all. Give the players this time.
- » When doing this drill with inexperienced players, then the "flow" is usually interrupted because the timing is a bit off. This is to be expected and, though this is of course not positive, it's something which you have to accept. And it's interesting to see how players try to get back to the plan from there.
- » Sometimes players try passes that aren't part of the plan. Such passes may occasionally lead to a score, but usually they are just very risky. They'll never get you to your 90% score rate. Discourage such passes.

### Advanced extensions

- » This drill is as game-like as it gets. So there's no real need to extend this drill.
- » If you really are looking for variations, you can let the disc start in a sub-optimal place, like somewhere



on the sideline.

- » Or alternatively, you can start this drill before players have set up. That is, you put one offensive player with the disc 5 meters away from the endzone. All other players start at 20 meters away from the endzone. Then you shout “go” and watch how players set things up.
- » If you want to make this drill even more game-like, then also add the last three offensive players, including their defenders.

### **Training recap**

To set up an endzone play, put three offensive players in the back of the endzone, put one cutter in the front of the endzone and use three handlers. The cutter is stationary and positions himself slightly on the open side.

The first option for the thrower to score is to pass the disc, often through an inside break pass, to the cutter.

If this isn't safe, the thrower can dump the disc to the open side and immediately run upfield for a score. This is option number two.

If the defense prevents this as well, by calling a strike, the disc should immediately be dumped back to the middle. It is then swung to the other side of the field. From there it should be possible to score quite easily. This is option three.

If the defense prevents that as well, then an inside break pass into the endzone usually results in a score. This is option four.

If even that doesn't work, then you're right back in the situation where you started, so you can try it all again.

# 10. Indoor Ultimate and the indoor endzone play

It's time for the indoor season! In indoor Ultimate, many things are different. This training has as goal to highlight these differences. It then continues by adjusting the endzone play of the previous training (9) to an indoor endzone play.

## *Prior knowledge*

This training expands on the theory of training 9. I strongly advise you to give that training before doing this one.

## 10.1. Knife/hammer throwing

### *Theory*

Indoor Ultimate is very different from outdoor Ultimate. The field is a lot smaller. You play five versus five. The stall count is only eight. And, in indoor Ultimate, there is no wind and no sun. This means that you can use just about any throw you want. Very useful throws here are the knife throw and the hammer throw.

The *knife* throw is very similar to a normal forehand throw. But instead of throwing it flat, you throw it at a 45 to 60 degree angle. This throw is very powerful if you throw it around a marker. To do so, you need to step out diagonally backwards/to the right. (Or, for left-handed throwers, diagonally backwards/to the left.)

The *hammer* throw (often also called the overhead throw) is similar to the knife throw, but you don't throw it at a 60 degree angle. You don't even throw it at a 90 degree angle (vertical). (That would be called a *blade*.) You throw it past that, roughly at a 120 degree angle. You usually throw it over a marker. To make sure the marker cannot block it, you either step out backward, or upward towards the toes of your pivot foot. The release point should be as high as possible.

### *Drill set-up*

This is a basic throwing drill. Make pairs. Every pair does ten knife throws, then ten hammer throws, and then does this all again for as long as time allows. The throwing distance is about 15 meters.

### *Points of attention*

- » For beginning players, these throws are new. This means that the throws will initially be a bit wobbly. With some more experience, they will put more spin in their throws and the wobbliness will be resolved automatically. Little or no intervention is required for this.
- » It's important that players learn to step out properly. New players have a tendency to step forwards while throwing, but in a match this will result in a foul. When you see this at a player, advise him to act as if there's a marker in front of him.
- » The idea behind the knife and the hammer throws is that they go over/around a marker. This means that, at the point of release, the arm should be fully extended. If you see players that do not do this, advise them to release the disc higher (for a hammer throw) or more around any potential marker (for a knife throw).

### *Advanced extensions*

- » You can let advanced players make a fake, after which they quickly throw the disc. For example, they can fake a low backhand throw, then quickly step out diagonally backwards and throw a high-release knife throw. When doing so, they should release the disc as quickly of possible. For a knife throw, this means that the disc is thrown even before the non-pivot foot touches the ground.
- » You can also let players vary the speed of their throws. They could throw lightning-fast knives and hammers, as well as knives and hammers that float as long in the air as possible.

- » Catching high upside down discs is something that's often done wrong. Many players try to catch a high upside down disc in the normal two-handed rim-catch fashion, but then the disc is likely to bounce off of their thumbs. Instead, players should keep their thumbs in the same plane as the rest of their fingers. This prevents the disc from bouncing away.

## 10.2. One on one

### *Theory*

Previously, we did a drill in which there was one handler with a marker, right in front of the endzone, and one cutter with a defender inside the endzone. (This was drill 9.2.) How does this change indoor?

First of all, the mark is different. In outdoor Ultimate, the most dangerous throw is the backhand throw because of its large range. To prevent it, we usually force forehand. However, in indoor Ultimate the field is tiny, so range doesn't matter. The most dangerous throw now is the hammer throw. To reduce its effectiveness, we usually set up a force backhand.

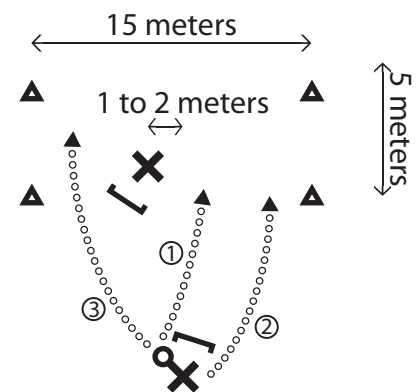
So, with a force backhand, how does one go about breaking the mark? First of all, the inside backhand is dangerous. That's why the marker's right hand should be low. Secondly, the around knife is dangerous as well. This means the marker's left hand should be up high. This is the default marking stance in an indoor Ultimate game.

### *Drill set-up*

This drill is essentially the same as drill 9.2. Only the mark has been switched and the endzone is made smaller. Now it's only 5 meters deep. (See the figure on the right.)

Again, the offensive cutter positions himself slightly to the open side. Furthermore, he is not allowed to run before the disc is thrown. Based on the positions of the defensive players, the thrower can then choose to throw an inside backhand throw (pass 1), an around knife throw (pass 2) or a floaty backhand throw to the open side (pass 3).

Again, the offense gets 5 attempts to score. After 5 throws, change positions in any way that logically makes sense.



### *Points of attention*

- » In this drill, defenders should still act as they would in a match. So the defender of the cutter should not turn around and solely look at the disc. After all, if he would do that in a match, the cutter would simply run off for an easy pass. If you see players looking too much to the disc, ask them to act more game-like.
- » Ideally, passes are floaty. If the pass hangs in the air on chest height, the cutter can simply run in and catch the disc whenever he likes. If you see players throw lightning-quick passes, advise them to throw floaty passes instead.
- » The marker should yell "up" whenever a disc is thrown. This helps the upfield defender.

### *Advanced extensions*

- » Give players the challenge to score as many points as possible. You'd want a score rate of at least 90%. So out of every 10 chances which a pair gets to score, they should score at least 9.

## 10.3. The endzone stack

### Theory

So what does this indoor endzone play look like? First of all, we need three handlers. We also need a cutter at the front of the endzone. The last player is a bit in the way, no matter where he goes. The least bad thing we can do is put him in the back of the endzone, right behind the first cutter. (See the figure on the right.) Now scoring is again easy. Just make a break throw and you're done.

But there is a way in which the defense can prevent this. The defenders can split up and each defend one side of the stack. (See the figure on the right.) Luckily, beating this is easy too. The last player in the stack can cut to the open side (run 1). The defender on the open side then has to choose who to defend. He chooses one player and the thrower makes an easy open-side throw to the other player (pass 2).

### Drill set-up

For this drill we need six players. We have the thrower and the two cutters in the endzone. Each of these players has a defender. (So we skip the two other handlers.) The defense can set up as they like. The offense needs to score in one throw.

The offense gets 5 attempts to score. After 5 throws, change positions in any way that logically makes sense.

### Points of attention

- » Beginning players, when uncertain what to do, often start running in random directions. Encourage players to stick to the plan. If they do not, point it out to them.
- » The goal of this drill is to teach the offense to respond to different defensive strategies. To reach this goal, make sure the defense actually applies different strategies as well.

### Advanced extensions

- » Experienced throwers can try throwing high-release backhands or scoobers as break throws.
- » If this drill goes well, continue with the next drill (10.4).

## 10.4. Putting it all together

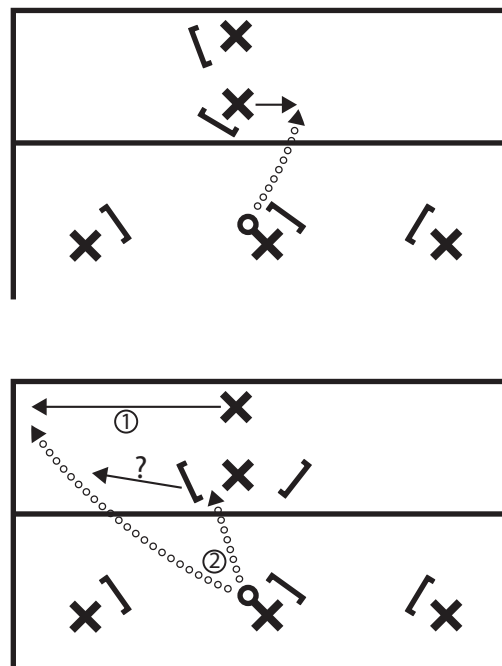
### Theory

Now we know how to score in one pass. But what if the defense is so good that this pass is simply impossible? In that case, we can apply the plan which we practised outdoor, in drill 9.5. The thrower can dump the disc to the open side and immediately make an upfield cut for the score. If that doesn't work, the disc goes back to the middle again and the whole plan restarts from there.

### Drill set-up

To practise this, we will set up a game-like situation. We have five offensive players and five defensive players, setting up however they wish. The offense then gets five attempts to score, in any way they wish. After every score or turnover, everyone sets up again. After the five attempts, offense and defense switch.

Also don't forget: the stall count in indoor Ultimate is eight. So if the marker says the "e" of eight, the thrower's toast.



### ***Points of attention***

- » When first doing this drill, players initially still need to get used to the endzone play. They will do things that are not according to the plan. (Like running all over the endzone, or like not dumping the disc at all.) Encourage them to follow the plan instead.

### ***Advanced extensions***

- » Let the disc start somewhere else than just in the middle. For example, let the disc start at the closed sideline, and watch how the offense resolves the situation. (They should get the disc off the sideline as soon as possible.)
- » Prevent the offense from setting up. That is, let all offensive players (except the one with the disc) start at the middle line of the field. This teaches the offense to set up the endzone play from scratch.
- » Challenge the team. Tell them they eventually need to score 9 out of 10 times. Do this drill regularly, keeping track of the performance.

### **Training recap**

In indoor Ultimate, there is no wind and no sun, so vertical throws like hammers and knives are very useful. When throwing these, step away from your mark and release the disc with an extended arm.

Because the hammer is so powerful in indoor, it's usually clever to apply a force backhand mark. Keep your right hand low for the inside backhand and your left hand high for the around knife throw.

In indoor Ultimate, the endzone play has three handlers and a stack of two. For the rest, it works the same as the outdoor endzone play. The stack is stationary and waits for the break throw. If this break throw is impossible, play with the handlers until an opportunity presents itself.

If the defenders apply a split stack defense, the last cutter in the stack should cut to the open side. This allows for an easy open-side scoring pass.



# 11. Indoor horizontal stack - the U-play

Outdoor, the horizontal stack is a very powerful offensive strategy. In this training, we'll be adjusting that strategy for indoor Ultimate, resulting in the U-play. The goal of this training is to teach players how to apply this U-play.

## *Prior knowledge*

This training requires knowledge of the outdoor horizontal stack play. This was treated in training 6. Also, a knowledge of basic indoor Ultimate is recommended. This was discussed in training 10.

## 11.1. Two-handed catching

### *Theory*

We'll start off this training with a catching drill. What is the best way to catch? A pancake catch? Not necessarily. It all depends on the situation.

- » When the disc is above head height, a pancake catch is difficult. It's better to go for a two-handed rim catch with thumbs down. (Unless perhaps in very windy conditions.)
- » When the disc is below knee height, a pancake catch is again difficult. Instead, go for a two-handed rim catch with thumbs up.
- » When a defender is breathing in your neck, it's important to catch the disc as soon as possible. Now it's best to use a two-handed rim catch, no matter where the disc is. Keep your arms fully extended to get the disc as soon as possible.

In any other case, you should use a pancake catch. But the next question is: which hand is above and which is below?

If a disc comes in on the side, you don't want the disc to fly past your hands. To prevent it from doing so, you can use your thumbs. However, this is only possible when your thumbs should point backward. This gives us the following very simple rule.

- » If a disc comes in on your left, use a pancake catch with your left hand below.
- » If a disc comes in on your right, use a pancake catch with your right hand below.

The goal of this drill is to practise catching in the right way.

### *Drill set-up*

This is a basic throwing drill for pairs. Pairs should be 10 meters apart. The thrower should throw all sorts of *flat* passes. (Yes, no knives/hammers here.) High, low, left, right, whatever. The receiver should make sure he catches all passes with two hands according to the above catching rules.

### *Points of attention*

- » Pay attention that players apply the principles explained above. If you see a player that does not, check if he realizes he made an error. If not, discuss it with him.
- » The low two-handed rim catch will be especially hard for beginning players. This is a good drill for them to get used to this kind of catch.
- » Many experienced players always have the same hand under when using a pancake catch. For them this drill will open up a whole new world. It may take some time for them to get used to catching discs with the "other" pancake catch.
- » When a pass is almost out of range, the one-handed catch should be used. This will be treated later on at drill 13.1. So when players ask about this, you can refer them to that.

## Advanced extensions

- » Only flat passes are allowed in this drill. After all, they're the most common. For players that have already mastered the catching techniques for flat passes, you can also allow knife/hammer throws. In this case, mostly the same principles apply.
  - » Players should use a pancake catch whenever possible.
  - » For fast knife/blade throws, players can keep the palms of their hands a bit closer together than for normal flat pancake catches. This prevents the disc from shooting through and hitting their head.
  - » For a high upside down pass, players should keep their thumbs in the same plane as the rest of their fingers. This prevents the disc from bouncing off their thumbs.
- » If this drill goes well, combine it with drill 13.1. That is, players should make a two-handed catch whenever possible and a one-handed catch if the disc is almost out of range and the second hand can't make it.

## 11.2. Cutting in for the disc

### Theory

In an outdoor horizontal stack play, there are four cutters. Two of them are running and two of them are resting. In indoor Ultimate, the points are so short that resting generally isn't necessary. So we cut away the two resters. What we remain with is the *U-play*.

In this play, we always have two runners. One of them is going deep, while the other one is running in, toward the disc. Let's look at the in-cutter first. If he gets the disc, the first thing he tries to do is dump the disc back to the handler. When he does that, he puts the handler in an ideal position for a deep pass.

### Drill set-up

Let's discuss the drill set-up. Using space efficiently in an indoor hall is hard. That's why, when setting up indoor drills, we often look at how to optimally use the full hall space.

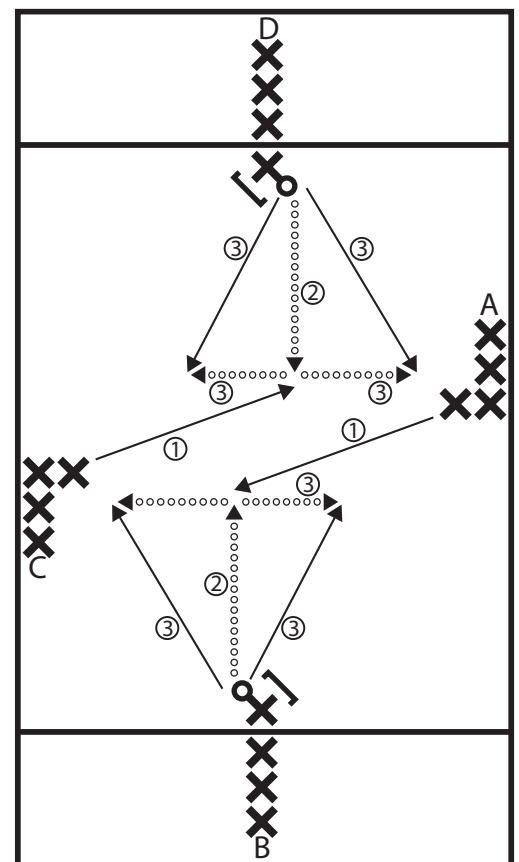
First of all, we need a handler (with a disc) and a marker near the endzone line. Behind them is a line of waiting handlers (line B/D). Secondly, we need a cutter on the close side. Behind him is a line of waiting cutters (line A/C). At the start of the drill, the cutter runs in (run 1). He receives the disc (pass 2). The handler immediately runs after his pass (run 3) to get the disc back, on either side of the cutter (pass 3). When he gets the disc back, he fakes for a deep throw.

This drill is done in exactly the same way (but then rotated 180 degrees) on the other side of the field.

As to rotation: the cutter from line A continues to the back of line B. The handler from line B (who just got his disc back) runs with his disc to the next handler of line B. He hands the disc to this next handler and becomes the marker. The former marker of line B goes to the back of line C. This is done simultaneously on the other side of the field.

### Points of attention

- » After throwing the disc to the cutter, the handler should not run directly towards the cutter. He should run such that the pass he gets from the cutter still travels for roughly 5 meters. This allows the cutter to throw a proper floaty pass on chest height.
- » After the handler gets the disc back, he should fake for a deep throw. This fake is important, as it's the



option which the handler (in a match situation) normally would throw.

### Advanced extensions

- » You can switch the force halfway through this drill. That is, you mirror everything in the figure about the vertical axis. When you do this, the *throw and go* action becomes harder for right-handed handlers. The handler can now either throw a forehand and quickly run after it, or use a left-handed backhand throw.
- » The cutter can also first do an optional fake run deep before cutting in.

## 11.3. Cutting deep for the score

### Theory

While one cutter runs in, the other cutter runs deep, to one corner of the endzone. When he's almost there, he looks over his shoulder to see if the disc is coming. If it's not, he immediately turns around and runs to the other corner of the endzone to receive the disc there. This pattern of running is called the *seven cut*. It's a very effective way to fake out a defender in an indoor Ultimate game.

### Drill set-up

For this drill, we make four lines of players in the middle of the field. (See the figure on the next page.) In the middle two lines, all the players have a disc. The first player in the line on the side runs to the far corner of the endzone (run 1). The thrower might decide to throw the pass there (pass 2). This should be a forehand or knife throw for right-handed players. If he does not throw it, the cutter should immediately run to the other corner of the endzone (run 3) for a right-handed backhand/hammer pass (pass 3).

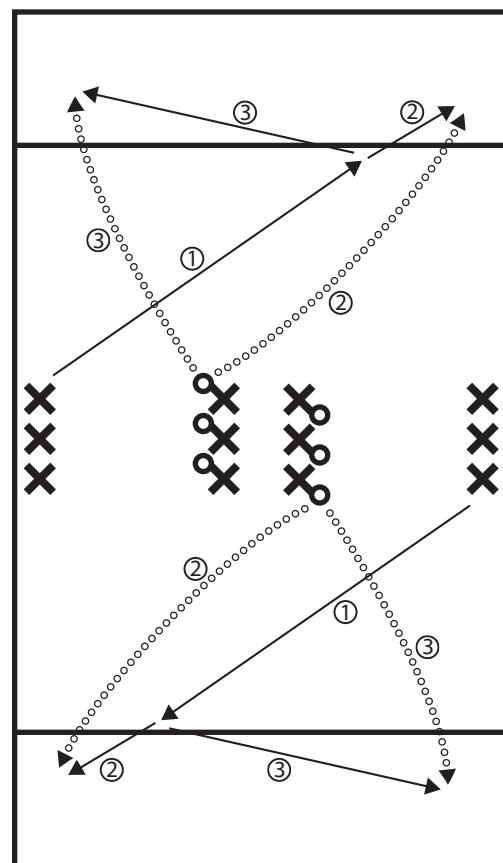
As to rotation: after a thrower throws a disc, he goes to the adjoining row of runners. After a runner catches a disc, he walks around the field (so as not to be in the way) and subsequently joins whichever line of throwers he prefers.

### Points of attention

- » When doing a seven cut, as shown in the figure on the previous page, a player should look over his right shoulder to check if the disc is coming. If it is not coming, he should immediately turn left to go to the other side of the field. Doing this "look" well is very important. It doesn't only provide important information to the cutter. It also often fakes out defenders who think the disc might actually be coming.
- » The timing of the throws is important. If a runner needs to wait for a disc, the disc has been thrown too late.

### Advanced extensions

- » Halfway through the drill, you can mirror everything. Players now run the seven cut in the opposite direction.
- » Give experienced players the task to vary the speed of their throw. Tell them to throw lightning-fast throws and get the timing right on them, or instead to throw very floaty throws that stay up in the air for as long as possible.



## 11.4. Putting it all together

### Theory

It's time to put everything together in one drill. Ideally, in the U-play, one cutter runs in, gets the disc and dumps it back to a handler. Subsequently the handler can throw a deep pass to the other runner for the score.

### Drill set-up

In this drill, we make four lines of players: a line of handlers with a disc (line D in the figure), a line of markers (line B), a line of in-cutters on the closed side (line A) and a line of deep cutters on the open side (line C).

At the start of this drill, the runner on the closed side runs in (run 1) and gets the disc (pass 2). He immediately tries to dump it back to the handler (pass 3), who is defended by the marker. At the same time, the runner on the open side runs deep (run 3). The handler then throws the deep pass. This can be done either on the closed side (pass 4) or on the open side (pass 5), depending on the timing of the runner and the position of the marker.

As to rotation: the in-cutter (from line A) goes to the line of markers (line B). The marker (from line B) goes to the line of deep runners (line C). The deep runner (from line C) goes to the line of throwers (line D). And evidently, the thrower (from line D) goes to the line of in-cutters (line A).

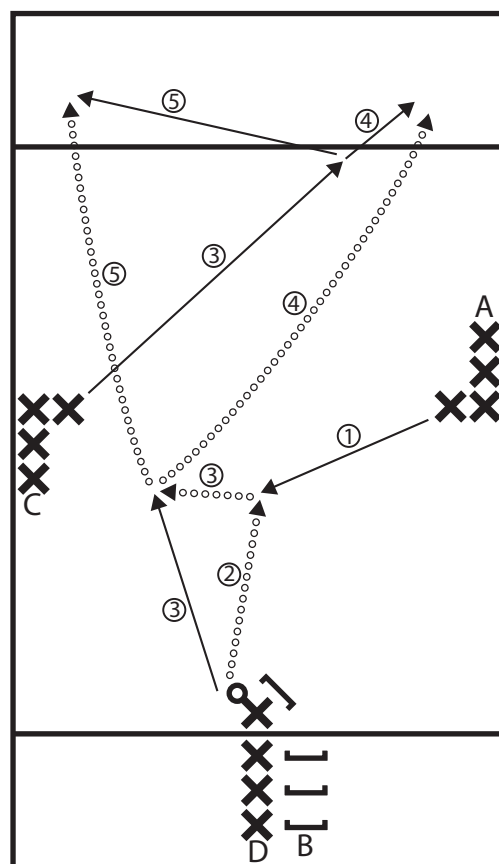
By the way, in a real game it doesn't always hold that the cutter on the closed side cuts in. This depends on how the defense sets up. But for this drill, let's just stick with the agreement that the cutter on the closed side cuts in.

### Points of attention

- » Make sure that players apply the principles of the previous drills. For example, the deep runner should do an actual seven cut, including the "look" over his shoulder.
- » The timing of the deep runner is crucial. Players have a tendency to run too early. If you see this happening, advise these players to experiment with different timings of their cut.
- » You might get a question from one of your players: "What should you do in a match if you cannot throw a pass? For example, when the first in-cutter is very well defended?" In this case, you should continue like you're in a normal horizontal stack play. The in-cutter should go deep and the deep-cutter should go in.

### Advanced extensions

- » Just like in the previous drills, you can switch the force halfway.
- » If this drill goes really well, you can add defenders to all offensive players. In this case, the rotation of course changes. Players now rotate in pairs. The deep runner becomes the next thrower (line D), the thrower becomes the next in-cutter (line A) and the in-cutter becomes the next deep runner (line C). After one cycle, a pair switches offense and defense internally.
- » If you add defenders to all offensive players, then you can also revoke the rule that cutter on the closed side cuts in. Let the cutters work it out for themselves who is in the best situation to cut in.
- » If you have a very big team, and you desperately need to involve more players in the drill or the entire team will be bored to death, then you can also set up the field as is done in drill 19.2.



### Training recap

Catching technique: When training your throws, also pay attention to your catches. Use a two-handed rim catch above head height and below knee height. In any other case, use a pancake catch with your thumbs pointing backward.

The *U-play* is basically an outdoor horizontal stack without the two resting cutters. You have three handlers and two cutters. The cutters continuously cut in and deep, according to the normal rules of cutting.

When a cutter cuts deep, he should actually cut to one corner of the endzone. He then looks over his shoulder to check if the disc is coming. If it's not, he immediately turns around and runs to the other corner of the endzone. This cutting pattern is called a *seven cut*.

# 12. Dump training

In an Ultimate match, it's not always possible to throw a disc forward. That's why being able to dump a disc is so very important. It prevents turns due to stall-outs. However, what's more important: dumps can also create opportunities. This training will show players how.

## *Prior knowledge*

Players should already know the basic dump procedure as discussed in training 5.

### 12.1. Break the mark

#### *Theory*

Dumping a disc is easier if you're able to break the mark. That's why we're doing a break the mark drill here. Next to that, it's of course also important to regularly practise both marking and throwing under pressure. (Note that we've already done this drill at 8.1 and 8.2.)

#### *Drill set-up*

This drill is done in groups of three. You have a thrower and a marker, with a receiver 10 to 15 meters away. The marker tries to prevent the throw from the thrower to the receiver by setting up a proper mark. Only backhand and forehand throws are allowed. This drill would be too easy if hammers are included.

As to rotation: the thrower always runs after his pass to become the next marker. The receiver becomes the next thrower and the marker is the next receiver. Halfway through the drill, switch the thrower and the marker once to make sure players aren't always marking the same thrower.

#### *Points of attention*

- » Markers should apply the proper marking technique. (See training 8 for details.) Throwers should make good fakes, which include occasionally (yet not constantly) stepping out to both a forehand and a back-hand stance, quick hip and shoulder fakes as well as high and low release fakes.
- » Make sure the marker sets up properly, like in a real game. In this drill, markers are often tempted to stand two to three meters away from the thrower. This makes the drill easier for the marker, but a lot less game like. If you see this, advise the marker to move closer and set up a proper game-like mark.

#### *Advanced extensions*

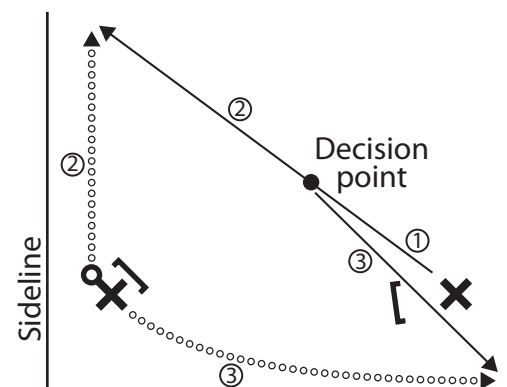
- » For really good markers, allow hammer throws. To block those, raise both your hands and also close in on the thrower. Only if you're really close to the thrower do you have a chance to block a hammer throw.

### 12.2. Getting off the sideline

#### *Theory*

One of the worst situations you can be in, in an Ultimate match, is stuck on the sideline, like in the figure on the right. From there, you virtually never have options forward. So if you find yourself in that situation, you'd better get off of the sideline right away.

The exact dump procedure has already been discussed earlier, in drills 5.2 and 5.3, but let's summarize it. First of all, if you can throw a safe floaty pass behind the dump, you should immediately do so. This is the easiest option. The dump should always be ready to receive such a pass.





If such a dump is not safe, you should turn your entire body toward the dump. This is the signal for him to get open. The dump will run upfield (run 1 in the figure of the previous page). After nearly reaching full speed, the dump checks if he will get open upfield. If he will, then he continues running for the upfield pass (pass 2). If not, he should immediately do a chop stop and double back for the original dump pass into space (pass 3).

Does this get the disc off the line? It often does. But in case of an up-the-line pass it does not! It does create a good possibility for a deep throw though. So after receiving this disc, the dump runner should always either try to throw a deep throw (if there is a good option) or fake a deep throw (if there is not a good option). This gets the marker off-balance.

Let's take a closer look at this situation. After the up-line pass (pass 1 in the new figure on the right) the thrower should immediately (at full speed) position himself as the new dump. (This is run 2.) Usually the defender runs along at full speed as well. If this is the case, then the new dump can suddenly turn around (run 3) and receive a dump pass (pass 3). If the defender doesn't run along, then the new dump can simply continue (run 4) for another easy up-the-line pass (pass 4), creating another good opportunity for a deep throw.

In this way, we can always get the disc off the line, or we can always continue to easily move forward.

### ***Drill set-up***

For this drill we need two offensive players and two defensive players. One of the offensive players has the disc and is stuck on the sideline. (That is, the defense forces toward the sideline.)

When the defense checks the disc in, the offense makes one upfield fake and then tries to get the disc off the sideline according to the plan. If the offense manages to do so - that is, the disc is more than about 8 meters away from the sideline - then the offense wins. When the offense gets two upfield throws, then the offense wins as well. In any other case, the defense wins.

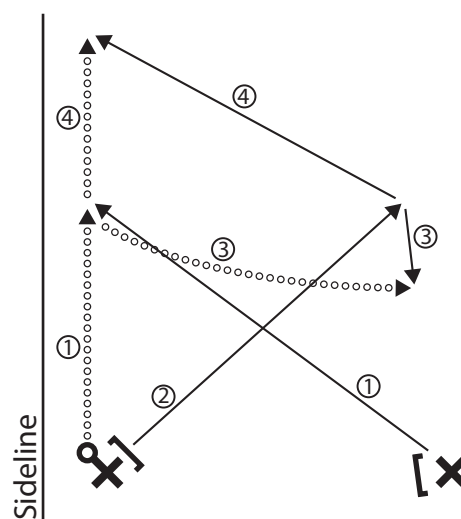
Repeat this drill with the same set-up four times. Then switch positions in any way that logically makes sense. Optionally you may mirror this drill - as well as the next two drills (12.3 and 12.4) - halfway through.

### ***Points of attention***

- » This drill can take up quite a bit of space, so use your space wisely. Set up your groups such that they don't run into each other.
- » Encourage players to stick with the plan. Some players might try to get the disc behind the thrower, but that won't get them off the sideline. Other players might start to make lots of tiny cuts, but this only fakes out the thrower and not the defender. Players should stick to the plan and trust that it works. If executed well, it always does.
- » After throwing an up-the-line pass, the thrower should immediately run to become the next dump. Players often forget this! They simply throw the pass and first want to check if it actually arrives. Encourage players to throw and immediately run.

### ***Advanced extensions***

- » We may add a cutter (with defender) to this drill. This cutter sets up in the middle of the field. In case of an off-the-line pass (pass 3 in either of the previous two figures) the cutter should run to the closed side to receive a swing pass. In case of an up-the-line pass (pass 2 in the first figure/pass 1 in the second figure) he should run deep to try and get the disc there. In case the dump runs up the line but doesn't receive the pass, then the cutter can run downfield to become the new dump in the middle and receive the dump pass there.



## 12.3. Running behind the thrower

### Theory

The best way to prevent being stuck on the sideline is of course to not throw the disc to the sideline in the first place. One way in which we can prevent that is by having the dump on the open side run behind the dump. (This is run 1 in the figure on the right.) He then receives a short pass backward (pass 1).

The nice thing about this is that we don't get stuck on the sideline. But the really great thing here is that we create a powerful opportunity. When the dump catches the disc, his defender is still behind him. This means that he can throw a very easy pass (pass 3) to the closed side!

Do note that, for this to work, the original thrower should be out of the way. So as soon as the thrower dumps the disc (pass 1) he should run off away from the intended throwing lane. (This is run 2 in the figure above.) And, by running away like this, the (former) thrower can position himself as the new dump right away.

### Drill set-up

We're going to practise this in groups of 6 to 9 players. Set up three cones as shown in the figure on the right. Divide players among the cones. The players at the middle cone each have a disc.

The dump runs behind the thrower (run 1), gets a short backhand pass (pass 1) and immediately throws the disc on (pass 3) to the upfield cutter.

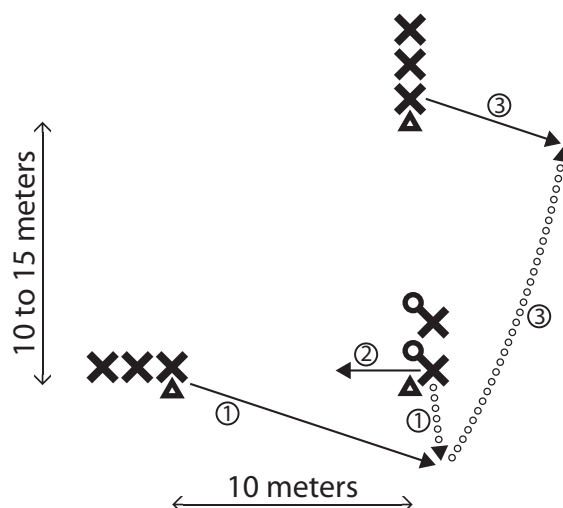
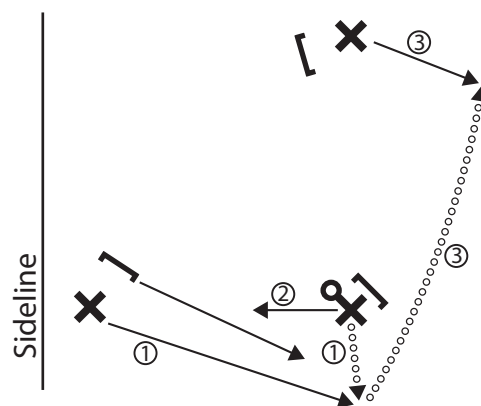
As to rotation: the cutter receiving the disc joins the line of throwers. The (former) thrower clears out to be the new dump and the dump joins the line of cutters.

### Points of attention

- » The dump pass backward should be a floaty horizontal pass. Throwing such a pass with a forehand pass is nearly impossible. This throw should therefore always be a backhand pass. Furthermore, the throw should not vary in height too much. Any throw that goes up and down a lot is hard to catch and may result in drops.
- » The upfield cutter should not run too early. In fact, it's perfectly OK if he starts running (run 3) at the same point as the thrower is about to throw the disc (pass 3).

### Advanced extensions

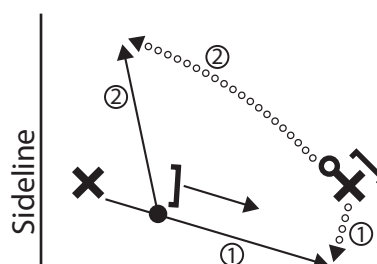
- » You may do this drill with defenders. The defenders should then position themselves as they would in a real match. Furthermore, the defender of the dump should for this drill allow run number 1.
- » If this drill goes well, continue with the next drill (12.4).



## 12.4. Dumping to the open side

### Theory

The pattern of the previous drill (12.3) is very powerful when executed well. However, the defender can prevent it by positioning himself a bit closer to the thrower (like in the figure on the right). This does result in



another opportunity though. In this case the thrower may throw an inside pass forward (pass 2 in the figure on the right) putting his teammate in a very powerful position for a deep throw or a break throw.

A really good defender will find a trade-off between shutting down these two options. To beat such a defender, a dump first has to run behind the thrower, going for option 1. If the defender commits to shutting down this option, then the dump can chop stop and immediately run forward (run 2) for the very powerful forward dump pass.

### ***Drill set-up***

This drill is done in groups of four (just like drill 12.2 was). We have two offensive players and two defensive players. One of the offensive players has the disc. The other offensive player is positioned on the open side. When the defense checks the disc in, the thrower makes one fake forward. Then he tries to dump the disc to the open side according to the plan we just described.

If the offense manages to throw the inside throw forward (pass 1), putting the dump in a strong position for a deep/break throw, the offense wins. If the offense manages to throw a dump pass behind the thrower, putting the dump in a strong position for a break throw, the offense wins. In any other case, the defense wins.

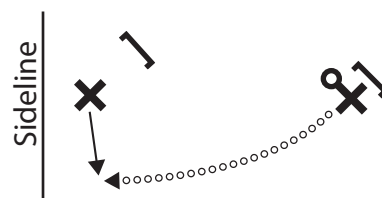
Repeat this drill with the same set-up four times. Then switch positions in any way that logically makes sense.

### ***Points of attention***

- » It may happen that there is a miscommunication between the thrower and the dump. That is, the dump initially runs backward (run 1) but suddenly stops to go for option 2, while the thrower does throw pass 1. If you see this happening, talk with the dump.

Tell him a simple rule: *don't turn around when the thrower is in a throwing motion*. If the thrower is not in a throwing motion, it's safe to turn around. However, when he is, it is certainly not safe! The thrower might release the disc. Only when the thrower holds on to the disc, making his throwing motion a fake, is it safe to turn around. In fact, this is a signal from the thrower that the runner should turn around.

- » The idea of this dump drill is to prevent getting the disc on the line. The thrower should never just dump the disc to the open side behind the thrower (like in the figure on the right) without at least a plan of getting it out of there again. (Note that we did have such a plan in the endzone play of trainings 9 and 10.) If there's no such plan, then the offense is only putting itself into a lot of trouble.



### ***Advanced extensions***

- » Just like in drill 12.2, we can add a cutter with a defender. If the handlers execute option 1, then the cutter can either get a deep pass or an inside break pass on the closed side, depending on where his defender is. If the handlers execute option 2, then the cutter can simply get a break pass on the closed side.

### **Training recap**

When you're stuck on the sideline, your main priority should be getting off of it. You use the dump procedure of training 5. An up-the-line pass doesn't get you off the line though. Now it's important that the new dump positions himself quickly. This creates another opportunity to get the disc off the line.

However, it's better not to get the disc on the sideline in the first place. To do this, the dump on the open side can run behind the thrower to get a short pass there. This creates an opportunity for a break pass. If the dump defender tries to shut this down, the thrower can throw an inside pass forward to the dump.

# 13. Handler play basics

If you have a team that is used to playing with each other, then the handler play is a very strong strategy. This training looks at the basic ideas behind it and practises applying them. Later on, in trainings 25 and 34, some more advanced handler tricks will be treated.

## *Prior knowledge*

This training is a follow-up of training 12. It's important that that training has been done prior to this one. Furthermore, for the first drill (13.1) it's important to have done the drill on two-handed catching (drill 11.1).

## 13.1. One-handed catching

### *Theory*

Previously, in drill 11.1, we discussed two-handed catching. However, sometimes the disc is so far away from you that you cannot get both hands to the disc. In this case you need to make a one-handed catch. This drill should teach you exactly how to do that.

First of all, which hand should you use? This depends on the situation. If there's a defender breathing in your neck, you want to get the disc as soon as possible. Use the hand that's closest to the disc. If the disc is flying very fast and you don't want it to shoot through, use the hand that allows you to have the palm of that hand behind the disc.

Another question is: do you catch the disc thumb-up or thumb-down? This depends where the disc is. Your thumb is your shortest finger, so you generally always want to have it as near to your body as possible. Or, to be precise, as near to your shoulder. So for flat passes below shoulder height, use a thumb-up catch. For flat passes above shoulder height, use a thumb-down catch.

### *Drill set-up*

This is a basic throwing drill for pairs. Pairs should be 10 meters apart. The thrower should throw all sorts of passes that are just out of reach for a two-handed catch but can be caught with one hand. Knives and hammers are allowed. The receiver should make sure he catches all passes with one hand according to the above catching rules.

This drill might be a bit dangerous if hall space is limited. Advise players to use "heads" calls when necessary.

### *Points of attention*

- » Players might be tempted to throw normal passes on chest height. That would defeat the purpose of this drill. If you see this, ask the players to throw two to three meters to the side (left or right) of the receiver.
- » Some players have trouble overcoming the urge of using two hands to catch a disc. For the purpose of this drill, advise them to try and catch discs with one hand anyway.
- » In some cases, when you advise a player to catch a certain disc with their left hand, they will say, "No, I really think catching this disc with my right hand would be easier." In that case, tell him to imagine a mirrored situation. Ask him whether he then would catch the disc with his left hand. Quite often, his initial reaction is "no" as well. This inconsistency gets him thinking, and in the end he'll figure out which hand actually is the best to catch the disc with in that situation.

### *Advanced extensions*

- » When you're a very experienced player, also the spin of the disc starts to become important. This spin does not affect with which hand you should catch a pass. It does affect the positioning of this hand.

Let's say that a right-handed thrower throws a backhand pass to you. The moment that the disc hits your

hand, the spin causes it to bounce away to the right. That's why you should shift your hand a bit to the right. If it was a forehand throw though, then your hand should be a bit to the left. In this way, the disc always spins right into your hand.

- » If this drill goes well, combine it with drill 11.1. That is, players should make a two-handed catch whenever possible and a one-handed catch if the disc is almost out of range and the second hand can't make it.

## 13.2. Look forward once, then dump

### Theory

The main idea behind the handler player is to *keep the defense off-balance*. If you constantly keep the disc moving, without giving the defense the time to catch up, it's much easier to beat them.

So what do you do when you catch a disc? Look forward for four seconds? No! That's exactly what allows the defense to recover. Instead, you only briefly look upfield. If there is a safe option, you make the throw. If not, you still make the full throwing motion, but instead of releasing the disc you hold on to it. By making this throwing motion as convincing as possible, you will fake out your marker, keeping him off-balance. After this fake, your focus should be fully on your fellow handlers. They need to get the disc to keep it moving.

To summarize, the first rule of the handler play is: *When you receive the disc, you either throw it forward or make a fake forward if there's no safe option. In the latter case, you should immediately try to dump the disc.* Effectively, you therefore try to dump the disc already at stall count one or two.

### Drill set-up

This drill has as goal to get players used to the habit of looking forward and then immediately dumping. To do that, we need groups of six to ten players. Every group makes two lines of players, roughly ten meters apart. The drill is done by only two players at a time.

One player starts with the disc. He makes a fake upfield (fake 1) and then dumps the disc (pass 2). Subsequently, the receiving player makes a fake upfield (fake 3) and dumps the disc back (fake 4). This continues until both players have made five throws each, or perhaps until space runs out. Then the players jog around the drill and join the opposite line, such that they practise both throws.

When the first pair is halfway through, the second pair can start already.

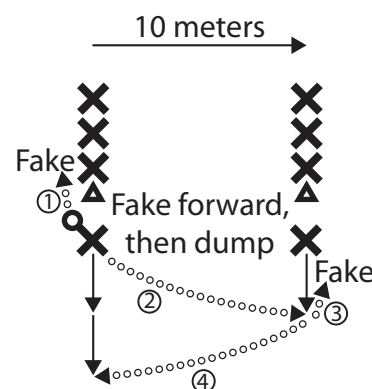
### Points of attention

- » The fakes need to be convincing. Ideally, a fake looks exactly like a real throw, up to the final moment when the thrower doesn't release the disc. Then he quickly goes for the dump option.

In fact, in a real match, an experienced thrower often already initiates the throwing motion before he even knows whether there's an option. It is during the throwing motion that he checks for options and decides whether to throw or keep the disc. (Though only tell this bit of info to experienced players.)

- » When inexperienced throwers step out to make the dump pass, they often step out toward the dump. This holds especially for the backhand dump pass. If the thrower has a marker, then such a dump pass would be easy to block. A much better alternative for the thrower is to step straight away from the marker. This gives him plenty of space to make an adequate dump pass.

To teach players this, feel free to set up a mark yourself on players that make this mistake. Show them you can get close to blocking the disc. Afterward, advice them on how they can make the dump pass easier. Alternatively, you can also make a general remark about this during/after this drill.





### Advanced extensions

- » If you have lots of players and little space, you can also add defenders to this drill. Their job in this drill is not to make it very hard for the offense. Instead, it's only to make this drill a bit more realistic. So, the dump defender should not be too close to the dump. Furthermore, the marker always forces to the sideline. In this way, the dump is always on the closed side.

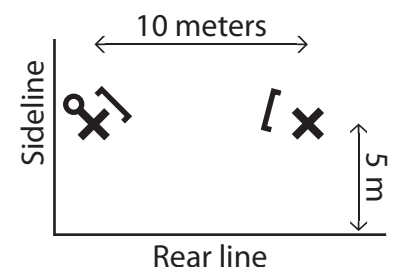
## 13.3. Getting off the sideline

### Theory

The main idea behind the handler player is to *keep the defense off-balance*. However, if you get stuck on the sideline, the defense gets the time to recover. That's why you should prevent this whenever you can. This leads to the second rule of the handler play: *Whenever you risk getting stuck on the sideline, your focus should be fully on getting the disc off the line.*

### Drill set-up

This drill has as goal to practise getting off the sideline. We have one thrower, with a marker, stuck on the sideline. The rear line of the field is only five meters away. (See the figure on the right.) We also have a dump with a defender roughly ten meters away. It is the goal of the offense to get the disc off the sideline in at most two passes. (With "off the sideline" I mean at least six meters away from it.) If the offense manages to do this, they win. If the defense keeps the disc on the line for two passes or if there's a turn, the defense wins.



The rotation is simple. The thrower and the marker become the next dump and dump defender. The dump and the dump defender join the line of waiting players. (In a hall, you can set up this drill on two sides of the field, where the middle line of the hall serves as "rear line." Players then rotate clockwise through the hall.) Furthermore, to make sure this drill has the pace of a handler game, the stall count is five.

### Points of attention

- » Some players aren't used to the dump procedure yet. In fact, occasionally players try to get the disc on the sideline behind the dump. Though this may be an easy pass, it only puts the disc in a worse position. And what's more: if this dump pass is not thrown, the thrower is blocked by defenders on both sides. He'll be absolutely stuck! If you see something like this happening, remind players of the dump procedure. That is, advise them to cut upfield instead.
- » Inexperienced players are often also not very decisive with their dump cuts. Quite frequently they jump from one foot to the other a few times before they hesitantly decide to jog somewhere. This rarely gets the defender off-balance. If you want to get the defender off-balance, you need to make longer cuts, of at least five steps, getting close to your full speed. This forces the defender to run at full speed as well which makes him vulnerable. If you then suddenly turn around, you've probably lost him.
- » In this drill it often happens that the dump runs up-the-line and gets the disc there. Next, the thrower thinks, "Oh, I threw the disc. I'm done." But (just like in a game) he's not! The drill continues, and ideally the (former) thrower immediately runs to fill up the dump position in the middle of the field.

### Advanced extensions

- » As an addition, you could make this drill start with a pass. That is, the middle handler has the disc and dumps it to the handler on the sideline. (His defender allows this pass.) At that point, the drill starts as normal. By setting up the drill in this way, it becomes more game-like. For example, the middle handler can (through this first pass) do a throw-and-run routine. This allows him to more easily get rid of his defender.



## 13.4. Adding a third handler

### Theory

In a normal game, dumps should only run when they're looked at. In a handler play, things are different.

According to the first rule of the handler play, throwers should fake forward once and then look for the dump. This rule allows the other handlers to know exactly when the thrower will look for the dump. They can time their cuts in such a way that they will be open then. This allows the disc to move around much faster.

This convenient fact leads to the third rule of the handler play: *Handlers should make handler cuts such that they are open at the exact moment when the thrower tries to dump the disc.* For this, they should use all the handler cuts they have at their disposal from the previous training (12) and improvise a few of their own.

### Drill set-up

We'll have three handlers, each with a defender, starting off roughly 15 meters away from the endzone. The disc starts at the middle handler. The goal of the handlers is to either score in the endzone or make five passes. If they do, the offense wins. If the defense manages to cause a turnover, the defense wins.

Note that this drill is about the handler play. The handlers should therefore remain handlers. We don't want any of the handlers to suddenly become a cutter. (That would defeat the purpose of this drill.) Therefore we install an extra rule: any pass forward may not go forward more than ten meters. (In that case, the defenders of the imaginary cutters might intercept the disc.) Furthermore, the stall count is still five.

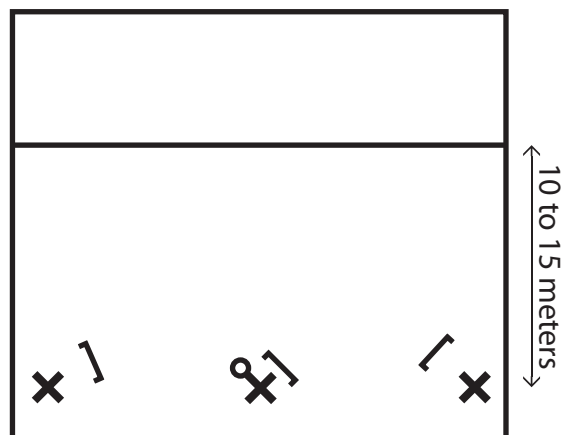
As to rotation: the defense becomes the next offense. The offense leaves the field and joins the waiting line.

### Points of attention

- » Encourage players to apply the rules of the handler play. (When you get a disc, make a fake forward, as if there was a cutter upfield. When you get on the sideline, immediately try to get off of it. And when a fellow handler gets the disc, try to be open at the time when he looks for the dump.)
- » Sometimes the first pass of a play already goes wrong. If you see something like this, you may (if it doesn't cause too much confusion) call for a rewind. That is, restore the disc back to its initial position and just do the drill again. Otherwise players are constantly rotating without doing any drills.

### Advanced extensions

- » You can let the disc start at various positions, like on the open or on the closed sideline, and watch how players deal with that.
- » You can also let the defense start in the endzone and throw (pull) the disc to one of the offensive players. The moment the offense then catches the disc, they should try to get it moving to get the defense off-balance as soon as possible. This makes the drill a bit more game-like.



## Training recap

Catching technique: When throwing a disc, also regularly practice your one-handed catches. It's very important to use the correct hand. That is, you want to have the disc as soon as possible, but you also want to have the palm of your hand behind the disc to prevent it from shooting through. Finally, your thumb is always closer to your body (shoulder) than the rest of your fingers.

The main idea behind the handler play is to *keep the defense off-balance*. To efficiently do so, we have three handler play rules.

Handler play rule 1: *When you receive the disc, you either throw it forward or make a fake forward if there's no safe option. In the latter case, you should immediately try to dump the disc.*

Handler play rule 2: *Whenever you risk getting stuck on the sideline, your focus should be fully on getting the disc off the line.*

Handler play rule 3: *Handlers should make handler cuts such that they are open at the exact moment when the thrower tries to dump the disc.*

# 14. Offensive running technique

Ultimate involves lots of running. By learning to run in the right way, tremendous gains can be obtained. This training focuses on the basic running techniques that are applicable to offensive Ultimate. Later on, in training 23, we will also treat the more defensive running techniques.

## *Prior knowledge*

Almost no prior knowledge is required for this training. Only for the last drill, players should have already learned the seven cut of drill 11.3.

## 14.1. Acceleration

### *Theory*

Being able to accelerate quickly is very important in Ultimate. The best way to do this is with lots of small steps. That's what we're going to train in this drill.

### *Drill set-up*

Set up two lines, roughly ten meters apart. All players start on one line, facing the other line.

First, let players do knee-lifting on the spot. These knee-lifts need to be fast/high-paced, but they should not be high. During every step, the toes only briefly leave the ground.

Next, tell players to fall forward. The moment they think they'll crash into the ground, they're allowed to take off and accelerate forward.

### *Points of attention*

- » It's important that the knee-lifts are at a high pace. After all, when accelerating, you also need to make lots of steps.
- » When accelerating, players need to make lots of small steps. If you see players that run off with a few huge steps, ask them to take more and smaller steps.

### *Advanced extensions*

- » This drill is very basic. Do this only briefly. Then continue with the next drill (14.2).

## 14.2. Deceleration

### *Theory*

The fastest way to accelerate is with lots of small steps. The same holds for decelerating. When you're running, and you want to stop as quickly as possible, the best thing you can do is take lots of small steps. Stopping in this way is called the *chop stop*.

When applying the chop stop, it's very important that you end up with your center of mass low. If you're low on your feet at the moment you've stopped running, it's a lot easier to quickly run back again.

### *Drill set-up*

Use the same set-up as the previous drill (14.1): two lines being ten meters apart. All players start on one line. From there, they'll do the drill. However, this drill actually consists of three parts.

- » Players accelerate quickly (with lots of small steps) to the other line. At the other line, they do a chop stop. They make sure that, the moment they're standing still, they're still low on their feet for a full sec-

ond. Then they can get up and restart the drill.

- » Players again accelerate quickly and make a chop stop on the other line, and they again stand still and remain low for a full second. But then they immediately turn around and quickly run back to the other line. There they do the same thing. (That is, stay low for a full second and run back.) After three runs, they can get up and restart the drill.
- » Players do the same as in the last part, but now the “second of standing still” is removed. Players run to the line, do a chop stop and immediately run back. Again, after three runs, players can get up and restart.



### Points of attention

- » Make sure that players use lots of steps to slow down. Some players claim that they can quickly slow down by just planting one foot into the ground. However, this is a bad idea. First of all, this “foot plant” stop is slightly slower than a well-trained chop stop. Secondly, when the floor is a bit slippery (like wet gras) it will cause you to slip and fall. And finally, the foot plant stop is putting huge stresses on your knee ligaments, which can very well result in injuries.
- » The hardest yet also most important part of the chop stop is to stay low and balanced after you’ve stopped. Players will have the tendency to stand up straight right after they’ve stopped. However, if they stay low, it’s a lot easier to run off again. So, advise players to stay low after doing the chop stop.

### Advanced extensions

- » Now players are running just back and forth, only making 180 degree turns. Alternatively, you can use cones to set out a more complicated running pattern. Players then need to run from one cone to the next, making a proper chop stop at every cone. This practises all sorts of turns.

## 14.3. Cutting after a chop stop

### Theory

The chop stop is a fast way of changing directions. But there’s one additional advantage to it. Let’s say that you’re cutting and suddenly make a chop stop. At that point, your defender knows you’re going to run in a different direction. However, if you do this well, he does not know which direction that will be!

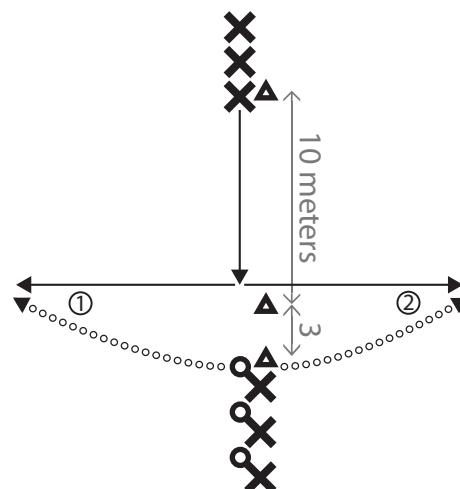
In this drill we practise doing a chop stop without giving an indication which direction we’ll cut to next.

### Drill set-up

Set out three cones as shown in the figure on the right. Make groups of five to ten players. Of every group, half of the players have a disc and will set up at one cone, while the other half sets up at the other cone.

A player without a disc will run forward and make a chop stop at the middle cone. At the moment the player has come to a full stop, the thrower points either left or right. The runner then runs in that direction and receives a leading pass from the thrower.

The rotation is simple. The runner joins the line of throwers, while the thrower joins the line of runners.



### Points of attention

- » In the chop stop, you should be low at the moment you’re standing still. This is hard for new players and many of them will not do this properly. When you see this, advise these players to really keep their center of mass low after stopping.

- » Sometimes the thrower is a bit early with pointing left or right. What may happen then is that the runner doesn't make a chop stop, but makes a curved "banana" cut instead. Such cuts are relatively easy to defend. The goal of this drill really is that players stand still for a very brief moment before they go left or right. Advise players that make curved cuts to try this chop stop.
- » Throwers should also use the throw that's easiest to catch. So, in the figure, a right-handed thrower should throw a backhand for option 1 and a forehand for option 2. When players do things differently, discuss this with them.

### ***Advanced extensions***

- » If this drill goes well, continue with the next drill (14.4).

## **14.4. Adding a defender**

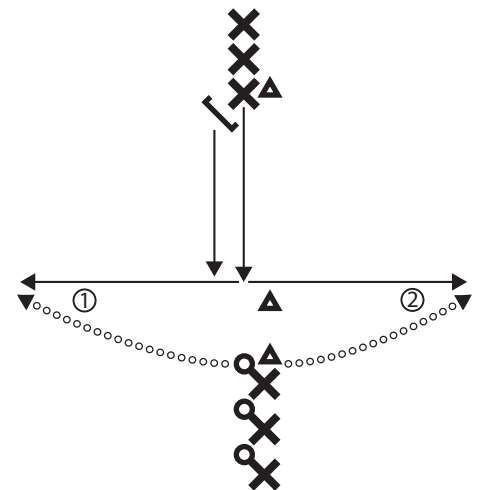
### ***Theory***

In a real game, you don't cut based on where the thrower is pointing. You cut based on the position of (among others) your own defender. That's why we're going to add a defender to the previous drill.

### ***Drill set-up***

The set-up is the same as the previous drill (14.3). However, now the cutter also has a defender with him. The cutter runs to the cone and makes a chop stop. Then, instead of having the thrower pointing out a direction, the cutter chooses to run left or right himself, based on the position of his defender. He receives a leading pass from the thrower.

The rotation is mainly the same. The cutter catches the disc and joins the line of throwers. The thrower joins the line of runners. However, this time the defender becomes the new cutter. So, after a drill execution, the defender immediately runs back to the line of runners to become the next offensive cutter.



### ***Points of attention***

- » In this drill, the runner is sometimes tempted to make lots of very small cuts, like "two steps left, one step right, one step left, three steps right" and so on. This does not work. In fact, the rule is that *A cut of two steps fakes out the thrower. A cut of five steps fakes out the defender.* To make sure this drill works, tell players to choose one side and commit to that side.
- » At the start of this drill, the rotation might be a bit confusing, especially for the defender who immediately needs to continue as a cutter. Assist players a bit by telling them where to go next.

### ***Advanced extensions***

- » You can vary the position of the thrower. For example, you can put the thrower all the way on the left in the figure above. In that case, option 1 becomes an in-cut, while option 2 is a deep cut.
- » When your throwers are somewhat experienced, you can also add a marker that applies a force to one side. In that case, either the runner needs to beat his defender on the open side, or the thrower needs to break the marker on the closed side. Either case is a nice challenge.

## 14.5. The chop stop in a seven cut

### Theory

The chop stop is widely applicable to many parts of Ultimate. We're going to examine one part where it's especially suitable: the seven cut.

When you're starting up a seven cut, you run to one corner of the endzone. When you're almost there, you look over your shoulder to check if the disc is coming. If it is, you of course continue running at full speed to catch it. If not, you immediately do a chop stop, turn around and run toward the other corner of the endzone to try and get the disc there.

### Drill set-up

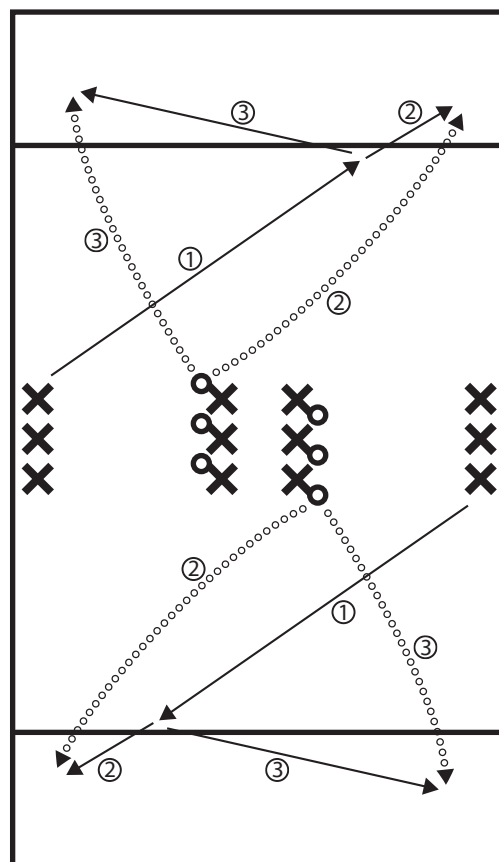
This drill is essentially the same as drill 11.3. There are four lines of players. The middle two lines are throwers. The outer two are runners. The execution is the same as in 11.3.

### Points of attention

- » Pay attention to a proper execution of the seven cut. This includes a look to check if the disc is coming and immediate chop stop if it is not.
- » Throwers should try to throw discs with the right timing, such that runners can run into the disc without having to wait for it.

### Advanced extensions

- » Just like in drill 11.3, throwers can challenge themselves by varying the speed of their throws, from very slow and floaty to lightning fast passes.



### Training recap

In Ultimate, accelerations and decelerations are always done through lots of short quick steps. The technique of stopping with lots of quick steps is called the *chop stop*. After executing it, you should be low on your feet, which allows you to quickly run in any direction, without giving your defender a clue which direction that might be. And if you then make a committed cut in the right direction, you're almost guaranteed to beat him.



# 15. Cutter catching training

In the previous training, we've focused on offensive running. This training will continue on that, but the focus will shift more toward catching. After all, as a cutter you actually do occasionally want to get the disc. This will be quite an intense training with lots of running. Make sure to schedule water breaks regularly.

## *Prior knowledge*

The only prior knowledge that is recommended is that players know the chop stop of drill 14.2. However, if this has not been treated yet, it can still briefly be explained.

## 15.1. Heads-on drill

### *Theory*

When you're cutting and a disc is thrown, you want to get the disc in your hands as soon as possible. The sooner you have it, the less chance there is for a defender to get in-between. Sometimes this means running at full speed into a disc that's flying straight toward you. These are things you have to get used to.

### *Drill set-up*

This drill is effectively the same as drill 2.3, except that now players have three months of extra experience, so the focus points are different.

Make groups of 5 to 10 players. For every group, set out two cones, roughly 20 meters apart. Divide players over the cones. All players except one have a disc.

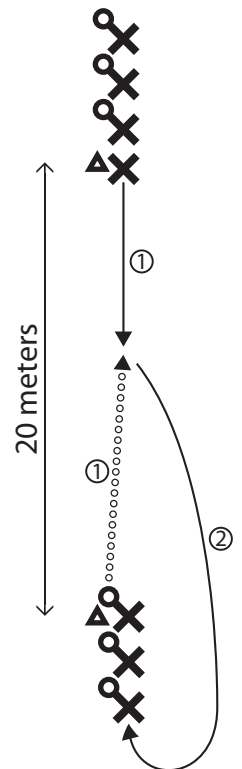
The player without a disc runs from one cone to the other, receives a disc halfway and then continues running to join the opposite line of throwers. After throwing, the thrower immediately runs forward himself.

### *Points of attention*

- » Inexperienced players tend to stop running when the disc nearly reaches them. Encourage them to keep on running. In fact, with this drill players don't even need to stop running at all. Advise players that do slow down to keep up their speed, just as if they didn't catch a disc in the meantime. (A small jump to be more balanced while catching the disc is okay.)
- » The idea behind this drill is to get players out of their comfort zone. If players are running into the disc so quickly that they feel a bit uncomfortable, then things are perfect. They're learning. Try to push especially the more experienced players just a bit beyond their limits.
- » You can ask the experienced players to focus on catching the disc with extended arms. Also a (two-handed) rim catch is recommended. This gets the disc in your hands just a bit sooner than the pancake catch. Next to this, experienced players also often bend their upper body forward when catching the disc. This is also a sign that they're doing the drill well. You can compliment players on this.
- » Encourage players to let this drill go quickly and smoothly. It's nice to get a bit of a "flow" going.

### *Advanced extensions*

- » You can ask throwers to throw imperfect passes. That is, throws that are a bit high, a bit low, a bit to the side and such. This teaches players to make quick unexpected (possibly one-handed) catches.
- » You can also tell runners to run at a bit of an angle - thirty degrees to the left or to the right - to practise catching discs that don't come from straight ahead.



## 15.2. Heads-on square

### Theory

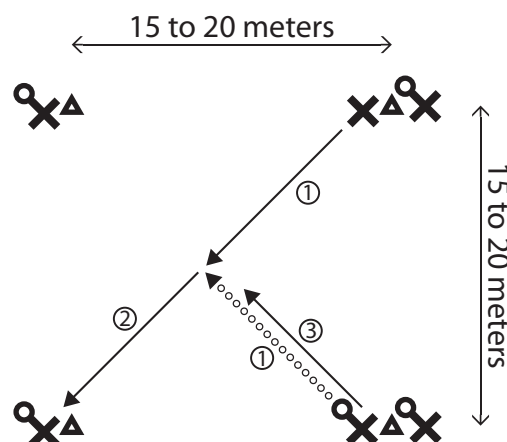
Discs don't always come from straight up front. Sometimes they come from the side. You should be able to catch such discs too. This drill focuses on that skill.

### Drill set-up

Make groups of 6 to 12 players. For every group, make a square with sides of 15 to 20 meters and divide players over the cones. Just like in the previous drill, all players except one have a disc.

The player without a disc runs diagonally across the square (run 1). Halfway there, he receives a disc from his left (pass 1). He catches this disc and continues running with it to his new cone (run 2). The former thrower immediately becomes the next runner (run 3). He also receives a disc from his left.

Halfway through, freeze this drill and tell players that runners should now receive the disc from their right side. If you have few players - only 6 per square - you might need to move some players around a bit to successfully set this up.



### Points of attention

- » The timing of the throws is very important. Players should not have to slow down for a catch. If they do, the thrower should throw sooner, make his throw faster or place the disc further in front of the runner.
- » If the disc is thrown too late anyway, then the runner should adjust his course such that he gets the disc in his hands as soon as possible. You can encourage players in this with active shouting. "Go get it!"
- » If you've already done the catching drills 11.1 (two-handed) and 13.1 (one-handed), you can encourage players to catch the discs in the right way. That is, if a disc is within easy catching range, you should use a pancake catch. (Experienced players may experiment with this.) If the disc comes in from the left you should put your right hand under and vice versa. If a disc is too far away for a pancake catch, you should use a one-handed catch. If the disc come in from the left you should use your right hand and vice versa.
- » Encourage players to get a solid and steady flow going.
- » This drill and the previous one (15.1) can be quite tiring. Schedule a two-minute water break afterward to let players catch their breath and rehydrate.

### Advanced extensions

- » You can intentionally let players make throws that are too late (for catching discs behind you), too early (for layouts), too high (for jumping) or too low (for slidings). If you have an enthusiastic group of players that encourages each other to get each and every disc, this can become a very intense and useful drill.

Do keep in mind that this extension will result in some very intense and unfamiliar situations. Remind players to always keep their safety in mind. Especially "suddenly turning around while running at full speed to catch a disc behind you" has an elevated risk of knee and ankle injuries.

## 15.3. Cutting - making a deep fake

### Theory

Imagine you're a cutter. You want to get open for an in-cut. To achieve that, you first need to get rid of your defender. A good way to do that, is by faking to run deep. When doing so, two things are important.

- » The fake has to be a real threat. The defender should believe that, if he doesn't follow you, he'll be in

trouble. Only then will he follow.

- » To get your defender off-balance, you have to make him commit to stopping the deep threat. This only happens when the defender (nearly) reaches his full running speed.

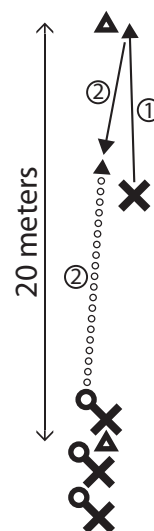
This drill focuses on making appropriate fakes, keeping these two rules in mind.

### ***Drill set-up***

Make groups of 4 to 8 players. For every group, set out two cones, roughly 20 meters apart. We have one runner in the middle between the cones. All other players line up with discs behind the front cone. (See the figure on the right.)

At the start of the drill, the runner starts to run at full speed to the far cone. When he gets there, he suddenly turns around - using a chop stop - and runs back in. The thrower throws the disc and the runner gets it in his hands as soon as possible, just like in the heads-on drill.

The rotation is quite simple. The thrower becomes the next runner. The runner keeps his disc and joins the line of throwers.



### ***Points of attention***

- » This drill is quite intense for the knees, especially on a hard indoor floor. Encourage players to apply proper chop stops with lots of small steps to reduce the strain on the knee ligaments.
- » The cut of the runner has to be convincing. He has to really commit to running deep before he suddenly, as if there has been some inaudible command, decides to turn around to cut back in. This skill of not giving away any sign that you're about to turn around is very powerful if applied well.
- » Keep on encouraging players to get the disc in their hands as soon as possible.

### ***Advanced extensions***

- » If this drill is going well, continue with the next drill (15.4) and possibly with its advanced extensions.

## **15.4. Cutting - running into open space**

### ***Theory***

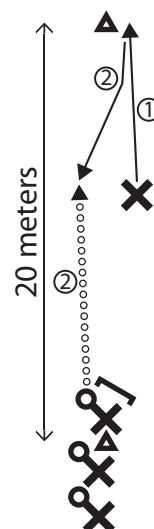
Just getting rid of your defender isn't enough to get you the disc. You also need to run to some place which the thrower can throw to. Seeing which space that is, and adjusting your cut accordingly, is a very important skill which every cutter should master. This drill practises exactly that.

### ***Drill set-up***

The drill set-up is exactly the same as in the previous drill (15.3), except that now there is a marker on the thrower. (See the figure on the right.) This marker chooses which side he forces to. However, he only does so after the runner starts to run deep.

When the runner turns around, he already starts to cut in, but while doing so, he checks where the open space is. He should then adjust his cut to grant the thrower an easy pass.

The rotation is similar to the previous drill. The thrower becomes the marker, the marker becomes the new runner and the runner keeps his disc to join the line of throwers.



### ***Points of attention***

- » Keep in mind the focus points of the previous drills. Players should make a convincing cut deep, almost running at full speed, they should make a proper chop stop and they should make sure they get the disc in their hands as soon as possible.
- » It's perfectly fine if there's a small "dent" in the running path of a player. In fact, this is a sign that he does

the drill well. If there's no dent, then the player is probably doing something wrong. It's usually a sign that he first checks where the space is and only then starts to run in. This would allow a defender to catch up.

### ***Advanced extensions***

- » You can extend this drill by telling the thrower that he should get the disc back from the runner, similar to drill 11.2. This encourages throwers to apply the throw and go routine. If you do this extension, the rotation is still the same. After the thrower gets the pass back, the drill stops and the thrower gives the disc back to the runner. The thrower still becomes the new marker.

One focus point in this extension would be that the thrower throws the disc early rather than late. This gives him more space and hence more time to get the disc back. Another way of making sure there's more time to get the disc back is by making longer cuts. That is, if the thrower needs to choose whether to go to the left or to the right of the runner to get the disc back, he should take the option which is the longest.

- » To make this drill slightly more realistic, you can also add a defender for the runner. This defender should act real. That is, he should follow with the deep fake. Next, he should try to intercept the disc on the in-cut. This will pressure the runner and encourage him to get the disc in his hands as soon as possible.

The rotation for this extension is similar. The thrower becomes the marker, the marker becomes the defender, the defender becomes the cutter and the cutter joins the line of throwers.

## **15.5. Layout practice - the landing**

### ***Equipment***

For this drill you need mats, and preferably the bigger ones (30 centimeters thick) that are often used in gymnastics classes, though the smaller ones (8 centimeters thick) can also be used.

### ***Theory***

Every Ultimate player knows what a layout is. But why would one ever be useful? There are three reasons.

- » It extends your reach. By rotating your body to a horizontal orientation, your arm will get closer to the disc than it otherwise could have been.
- » It brings you closer to the ground. This is useful for snatching up discs that are about to hit the floor.
- » If done well, it gives you a moment in which you're completely airborne. During this serene moment, you can fully focus on catching the disc. You don't have to worry about how to place your feet or how to land.

In this first drill on laying out we'll focus on the landing, because that's the part where injuries most often happen. Common injuries when laying out are:

- » Arm injuries. Think of bruised wrists, broken elbows and dislodged shoulders.
- » Knee injuries. Most common are knee burns, but plenty of other things can go wrong as well.

To prevent these injuries, the trick is to not land on either your arms or your knees. In fact, you don't want them touching the ground at all! The trick is to land on your chest. And yes, this does create the risk of breaking a rib. However, if you are doing sports regularly, then you should have enough muscles in your chest to keep all the ribs in place. (If you're not doing sports regularly, then don't lay out!)

So how should you land? You should land on your chest, with your body in a banana shape. You should be all stretched out, with your feet off the ground behind you and your hands off the ground in front of you. Landing in this banana shape is very important. When you do, the muscles in your lower back act as a kind of spring. They dampen the impact, resulting in less pain. (Does this mean that a good layout doesn't hurt? No, a good layout does hurt. It just hurts a little bit, which is something I cannot say about a layout gone bad.)

After hitting the ground, the next thing you do is slide. By sliding, you lose your velocity gradually instead of instantly, which would be rather painful. When sliding, you still keep your feet off the ground. You do use

your arms and hands to prevent yourself from tilting forward (faceplanting). Note that this is the only thing which you use your arms for. You never use your arms to absorb the impact!

### ***Drill set-up***

Let players line up in front of the mat. One by one, they should lay out on the mat, showing the right layout form and landing in a proper banana shape.

Keep in mind that the mat does not slide. Therefore, players should *never* (and I mean *never*) lay out while running! If they do, they will have a lot of horizontal velocity. Because the mat does not slide, they will instantly lose all this horizontal momentum. And because they land horizontally, all this momentum will shoot straight up their spine! This is a sure way to get back problems. Hence, never run before laying out on a mat!

### ***Points of attention***

- » Always make sure that you're properly warmed up when laying out. A basic warming up that has warmed up your running legs does not suffice. You should have been active, with a slightly elevated heart rate, for at least fifteen minutes.
- » The first thing which many players will do wrong in this drill is catch themselves with their hands. Okay, for this stationary drill this actually hurts less. However, if you're doing a layout at full speed, catching yourself like this is likely to break your arm. Therefore, encourage players to overcome their natural tendency of catching themselves with their hands. It may hurt a bit, but in the long run it will pay off.
- » Another common mistake is that players jump upward instead of forward. This will give them more altitude, which makes the impact all the more painful. If you stay low while laying out, the impact will hurt a lot less. And what's more, by jumping forward instead of upward, you will also have a bigger reach.
- » The third common error is that players just fall over. That is, they keep their feet on the ground and rotate forward. This rotation will only ensure that the chest (and possibly the head) will hit the ground much harder. A good layout has nearly no rotation. To solve this, ask these players to throw up their feet during their layout. If they lose contact with the ground early, there will be less time for them to start rotating.
- » During this drill, many players will get small burns on the inside of their arms, near their elbows. This is a good sign. It means they are getting close to the proper layout form. However, when practising this a lot, these burns may become painful. To prevent this, tell players to bring a sweater. (One without a zipper!) Not only will the long sleeves protect the arms, but the soft sweater will also dampen the impact a little.
- » The steps for laying out are virtually the same as the steps for jumping. The only difference is that you launch yourself forward instead of upward. So, if you've already done the jump training (20), you can refer players to this. Let them mentally go through the steps of winding up, swinging up and stretching out.
- » When playing an Ultimate game in an indoor hall, you're often short on space. Many players need to wait in-between points and get bored. If you have mats available, then this problem can be solved. Just put them somewhere on the side and let waiting players practise their layout form. Everyone's happy. And what's more: to really learn how to lay out, you have to practise regularly. This allows players to do that.

### ***Advanced extensions***

- » When players have the right form, you can ask someone to hold out a disc at about half a meter height. Players can then lay out for the disc. When catching a disc, you never use a pancake catch! This is likely to dislodge a shoulder. Instead, you use a rim catch, with your thumb pointing up.

As soon as one hand has hold of the disc, you turn the disc upside down, such that the palms of your hands face downward. By doing this, you reduce the risk of dropping the disc when you hit the ground.

- » When players have the right form on mats, you can slowly transition to scenarios without mats to let players get used to the fact that the ground is, in fact, quite hard. A field with wet and mildly long grass would be ideal for this. The longer grass dampens the impact and the wetness allows players to slide. Do keep in mind that players need to be properly warmed up before laying out.

### **Training recap**

To be a good cutter, your fakes have to be convincing. You run at full speed one way until you suddenly, seemingly out of nowhere, decide to run in a different direction. That's the most effective way to get a lead on your defender.

When you suddenly cut in, you should always check which spaces the thrower can throw into. These are the spaces where you might get the disc. If a throw is made, make sure you get the disc in your hands as soon as possible.

Layouts are useful for three reasons. They extend your reach, they bring you closer to the ground and they grant you a brief undisturbed moment in which you can fully focus on catching the disc. Okay, and they look awesome too.

The most common injuries when laying out are arm and knee injuries. To prevent them, you should make sure none of these body parts touch the ground. Instead, you should land on your chest and slide. While sliding, your feet still don't touch the ground. You do use your arms to prevent faceplanting.



# 16. Indoor zone offense

Imagine that you're on offense and the defending team all of a sudden sets up a zone defense. If you've never seen a zone defense, you wouldn't know how to deal with it and you're pretty much screwed. That's why it's important to know how to play *zone offense*. That is, an offense against a zone defense. This training discusses that. The next two trainings (17 and 18) focus on the indoor zone defense itself.

## *Prior knowledge*

This is a completely new and quite unrelated topic, so hardly any prior knowledge is required. Only a really elementary understanding of indoor Ultimate, as explained in drill 10.1, is recommended.

## 16.1. Fast and accurate throwing

### *Theory*

Previously, during the endzone training, we saw that if there are three defenders in the endzone, it's very hard to score. That's why the offense should never put more than two cutters in the endzone.

But what if the defense is stubborn and sets up a wall of three defenders in the endzone anyway? This is called a zone defense. After all, each of these three defenders is basically defending a small zone.

In this case, there are three ways to score. Method number one is to pass the disc through a hole in the wall. To do this, the pass has to be both fast and accurate. The goal of this drill is to practise such passes.

### *Drill set-up*

This is a basic throwing drill for pairs. The distance between each pair is 10 meters. (Keep in mind: in indoor the passes are short.) Players should throw accurate backhands and forehands that arrive exactly at the receiver's chest. If the accuracy is good, players should try to throw the passes as fast as possible while still remaining accurate. Remember, accuracy comes first. Speed comes second.

### *Points of attention*

- » Throwing accurate by itself (without throwing fast) may already be hard for inexperienced. Let these players focus on throwing accurate passes without throwing fast. After all, accuracy comes before speed.
- » There may be some enthusiastic players that try to throw as fast as possible without really keeping control over their throw. If you see this, intervene right away. Throwing without control doesn't teach these players anything and it may be dangerous. Players should always throw mostly controlled passes.

### *Advanced extensions*

- » Experienced players may also practise other throws, like knives and hammers and perhaps even an occasional scoober. These throws should of course still be accurate, hitting the receiver's chest.
- » We could also slightly adjust the drill. Let two experienced players find lines in the hall that are roughly 15 meters apart. They should then throw fast knives and overheads in such a way that the receiver can catch them while still just being "in." Let them experiment with how far/high these passes can be.

## 16.2. Catching while keeping a foot in

### *Theory*

Again imagine that there is a wall of defenders standing on the endzone line. Method two to score is for a cutter in the back of the endzone to run forward, past this wall, catching a disc while keeping one foot inside the endzone. The goal of this drill is to practise doing that.

Keep in mind that, at the moment you have control of the disc, you should be in contact with the endzone and *only* with the endzone. You should not touch the actual playing field, nor the line. This is only allowed after you have caught the disc.

### ***Drill set-up***

This is again a basic throwing drill for pairs. The players in each pair should pick two lines that are roughly 10 meters apart. These are the “endzone” lines. The thrower stands on the line. The receiver takes two steps back from his endzone line, basically walking into his endzone.

Now the drill starts. The thrower throws a pass (not necessarily fast) to the receiver. The receiver tries to catch this pass as soon as possible by running forward. However, at the moment he catches the disc, he should still keep one foot on the ground inside the endzone, such that it counts as a “score.” After the catch, it’s OK if he runs outside of his endzone.

### ***Points of attention***

- » With this drill, it’s fun for the trainer (you) to walk around and call out “Score!” or “No score!” If you call a “no score” and a player doesn’t agree with you or seems confused, explain the situation to him.
- » There will be players that simultaneously try to watch their feet and the disc. Doing this is impossible. The way to solve this is to first put your foot in the right place - five to ten centimeters before the endzone line, in case you still slip a bit - and then to fully focus on catching the disc.

### ***Advanced extensions***

- » If players are adequately skilled in catching, you can tell them to only use rim catches, either two-handed or one-handed. These catches grant a bigger range than the traditional pancake catches and are therefore more useful here. (See the catching drills (17.2 and 13.1) of the next two trainings for more information on different types of catches.)
- » Some really experienced players always plant the same foot inside the endzone. In a real game you don’t have the luxury of planning this all out. That’s why it pays to do this drill with either feet. If you see a really experienced player plant the same foot down three times in a row, ask him to plant his other foot down instead. Then see how comfortable he is with that.
- » We can make the drill more game-like. Instead of letting the receiver take two steps back from the line, he should now take five steps back. This time the receiver starts running and the thrower throws his pass with exactly the right timing, such that the receiver can catch the disc as far away from the endzone, while still being “in” without slowing down.
- » In the current drill, the disc always comes in from straight ahead. In a game, this of course isn’t always so. If space allows it, we can fix this too. Let the receiver not only take a few steps back, but also move five to ten steps to the side. Then execute the drill as usual.

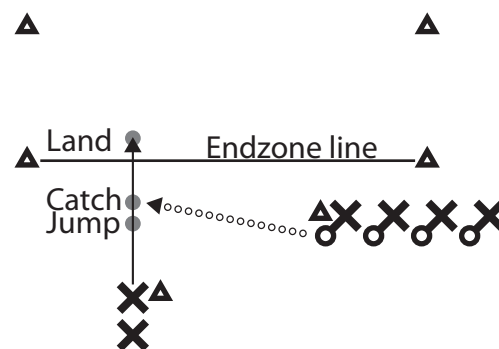
## **16.3. Jumping into the endzone**

### ***Theory***

The third method to score against an indoor zone is by having a handler jump in the air, catch the disc and land in the endzone. This drill aims to practise exactly that.

### ***Drill set-up***

Set out an endzone. (The exact size doesn’t really matter, as long as the endzone line is clear.) Make groups of six to ten players. Set up one line of throwers, with 2/3rd of the players, two meters out of the endzone. Set up another line of receivers, with 1/3rd of the players, five meters out of the endzone. (Also see the figure.)



At the start of a drill execution, the receiver runs toward the endzone. The thrower throws a disc that flies along the outside of the endzone. Ideally, this throw should be floaty and on head height. The receiver jumps, catches the disc in midair and lands with his feet just past the endzone line.

After the drill execution, the receiver joins the line of throwers. The thrower joins the line of receivers.

Halfway through the drill, mirror everything. This allows players to practise both throws and to practise catching discs from either side.

### ***Points of attention***

- » Just like in the previous drill, it's fun to shout "Score!" and "No score!" when applicable.
- » Some players may have problems to first jump and then catch a disc while being in the air. They often jump too late. Encourage them to try jumping before catching anyway, since this is an important skill and it's not too hard to learn.
- » Throws should be floaty and on head height. With "floaty" I mean a pass that isn't flying very fast but still has a constant height. Any pass that changes height a lot is hard to catch and shouldn't be thrown. If you see a player throw such a pass, advise him against it.
- » Some throwers have the tendency to throw the disc into the endzone, instead of having it float just in front of it. This defeats the purpose of this drill. If you see this happening, go stand on the endzone line and tell the group you're a defender. Throwers should then throw the disc such that you cannot reach it.

### ***Advanced extensions***

- » In a real game, players aren't always running straight toward the endzone line. In fact, what often happens is that the runner runs diagonally, right past the handler, and gets a really short pass. Or the runner gets a disc thrown from behind. To make the drill more game like, allow players to vary the positions of the runners and the throwers, as well as the direction in which the runner is running.

## **16.4. Three versus three zone play**

### ***Theory***

Now we know how to score against an endzone defense. Let's apply these newly gained skills! The first way to do that is in a basic three versus three zone defense game. We'll use a small endzone, and in this game the defense is not allowed to leave the endzone. Or at least, not more than one meter or so. They also may not set up a mark.

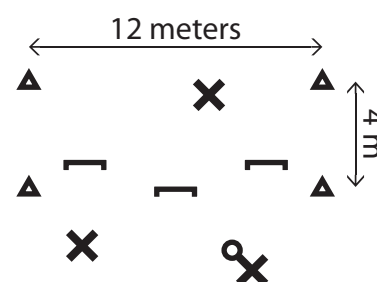
The offense on the other hand is allowed to go anywhere. They do have a stall count of 8 though, which applies even while there isn't a marker. So any of the defenders can count.

Do remember that, in this drill, just like in a real zone offense, there should always be an easy pass available to the offense. It's always possible to keep playing the disc around safely until the defense leaves a hole. This teaches us the most important rule of indoor zone offense. *There is never a reason to throw a risky pass.*

### ***Drill set-up***

Make teams of three players each and set out endzones of 12 by 4 meters. The defense sets up as shown in the figure on the right. That is, the middle guy is a bit in the front and the other two guys are positioned slightly more backward. The offensive players position themselves in any way they like.

The offense gets five attempts to score. (An attempt ends at either a turn or a score.) After five attempts, the offense and defense switch and the new offense gets five attempts. Which team scores the most out of these five tries?



### Points of attention

- » It was already said that “There is never a reason to throw a risky pass.” This is the most important rule of zone offense, but players will forget it. So remind players every time they throw a risky pass.
- » For the defense, communication and teamwork is very important. Each player defends a region. If you see a defensive player that leaves his region, and as a result gets scored upon, ask him why he left his region. Probably the answer will be, “To cover a player.” Tell him that, if a player leaves his region, he should not follow that player, but instead inform the respective team mate about the incoming threat.

### Advanced extensions

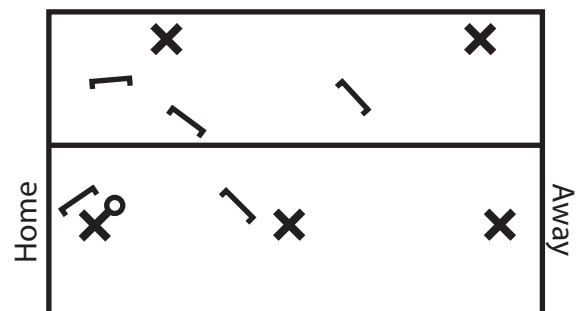
- » If you find this drill to be too easy for the defense, widen the endzone. If it's too easy for the offense, make the endzone smaller.
- » Another way to make this drill harder for the offense is to reduce the stall count to five or so.

## 16.5. A full zone offense

### Theory

The previous drill didn't only teach us endzone offense. We also learned how to defend an endzone. But in a real game we don't just have three players. We have five of them. What do the other offensive and defensive players do?

The two remaining defensive players are responsible for marking. How this exactly works is something we will discuss in detail during the next training (17). For now, let's assume that the markers are always marking toward each other. That is, if the disc is on the home side, then the home-side marker forces away. (See the figure for an example of this.) Similarly, if the disc is on the away side, then the away side marker forces home.



The offense itself plays with three handlers and two runners in the back of the endzone. But this is by no means a stationary situation. Cutters can run along the back of the endzone, or even run out of the endzone. Handlers can run into the endzone. The offense should do whatever it takes to cause a hole in the defense. Until then, even if it takes several minutes, they should continue to safely play the disc around.

There's one final important rule for zone offense though. If there's a very brief hole in the defense, it's important to take advantage of it. Therefore, when you're in the offense, always be ready to catch an incoming disc. Even (especially) when you're running.

### Drill set-up

We'll play a five versus five game on a full (20 by 5 meters) endzone. Just like in the previous drill, the offense gets five attempts to score. At the start of every attempt, both the offense and the defense can set up as they like. Then the disc is checked in and the normal Ultimate rules apply. Which team can score the most?

### Points of attention

- » When something goes wrong, it's often because one of the two important zone offense rules wasn't followed. (*There is never a reason to throw a risky pass.* and *Always be ready to catch an incoming disc. Especially when you're running.*) If this is the case, remind everyone of the corresponding rule.
- » The focus of this drill is on the offense. Don't focus too much on the defense. If players start asking complicated questions, refer them to the next training (17).

### *Advanced extensions*

- » Challenge teams to score at least four out of every five points. With some practice, this should be easily possible.

#### **Training recap**

There are three ways to score against a zone defense.

- » Throwers can throw a fast and accurate pass through/over the defensive wall to a player in the back of the endzone.
- » A runner can run out of the endzone and catch the disc while keeping a foot inside.
- » A handler can jump, catch a disc in midair and land in the endzone.

When playing zone offense, there are two fundamental rules.

- » There is never a reason to throw a risky pass.
- » Always be ready to catch an incoming disc. Especially when you're running.

# 17. Indoor zone defense set-up

In the previous training (16) we discussed the zone offense. To be able to practise it well, your team also needs to know how to play zone defense. This training teaches the main set-up of the zone defense. The next training (18) does some additional fine-tuning.

## Prior knowledge

This training follows up on the previous training (16). It's best to give that training before you give this one.

### 17.1. Break the mark

The break the mark drill is familiar by now. Nevertheless, it's important to do this drill regularly. That's why we're doing it again here. See drills 8.1, 8.2 and 12.1 for details.

### 17.2. The confining indoor zone defense

#### Theory

Let's discuss the indoor zone defense. The main idea of the indoor zone defense is that the defense floods the tiny indoor endzone with players. In the previous training, in drill 16.4, we already saw how three defenders should do this. In this training we'll discuss the other two defenders.

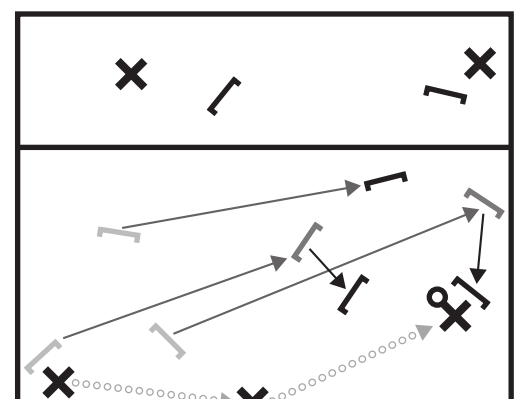
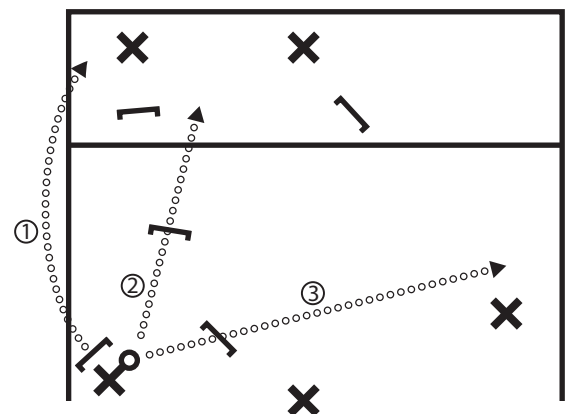
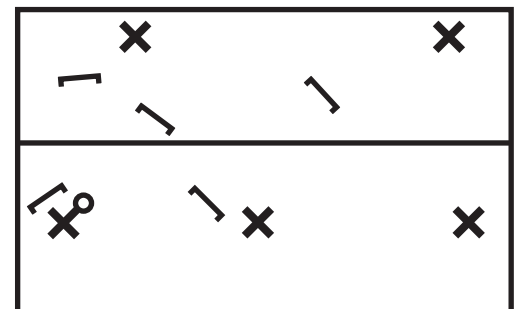
In general, in an indoor zone defense, the defense sets up in a cross formation. (This pattern is like the five of a dice. That's why this zone is sometimes called the *dice zone*.) We have two *deeps* and a *middle* player. They defend the endzone. At the same time, the middle player and the two front (*cup*) players form some kind of *cup* around the thrower. And yes, the middle player has a double role in this. He's pretty much the busiest player on the field. (Because this is such a difficult position, it might be wise to prevent the absolute beginners from taking up this position in an actual match.)

But how does this cup set up? This depends on what kind of throws we, as defense, want to prevent. A common option is to prevent throws forward. This results in the so-called *confining zone*. Let's see how it works.

First of all, we want to prevent throws along the outside of the field (like pass 1 in the figure on the right). To prevent this, we set up a marker on the outside. In a confining zone defense, you therefore always force toward the middle of the field. Secondly, we want to prevent throws directly forward (like pass 2). For this, we have the middle defender. Finally, we want to prevent throws diagonally forward (like pass 3). For this, we use the other cup defender.

The offense usually replies to such a defense by throwing the disc to the other sideline. This can be done either directly with a knife/hammer throw or indirectly via the middle handler. In this case, the cup should move. But how should it do this?

Remember that we want to prevent throws forward. The first thing that the cup needs to do is form a big wall, preventing such throws. (See the gray arrows in the figure on the right.) Once that wall is in place, the two cup players can close in to shut down the





usual options. (See the black arrows.)

### ***Drill set-up***

To practise the confining zone cup movement, we need groups of six: three handlers and three defenders. The handlers set up in a horizontal line. The cup sets up as usual, where the middle player is of course a bit more backward because he needs to cover the center field as well.

The handlers don't move. They only throw the disc among each other. The defense then moves just as they would in a normal confining zone defense.

This drill starts off easily. That is, initially the handlers should wait until the defense has set up. Later on, the handlers don't have to wait anymore. The defense should simply keep up.

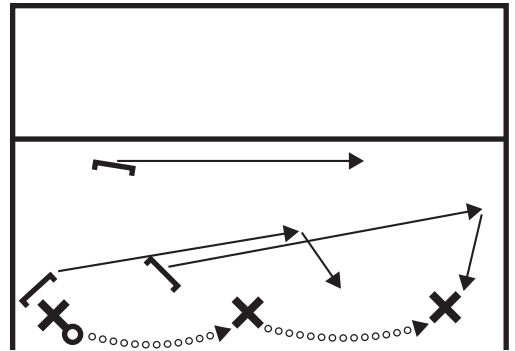
Switch offense and defense every one or two minutes, to prevent players from getting overly tired.

### ***Points of attention***

- » Players in the cup should not run at full speed. If the first player in the cup runs at full speed and he's faster than the other players in the cup, there will be a hole. Players should run as fast as possible without allowing any holes in the cup.
- » When a disc is thrown, the first thing the defense should do is shut off the pass forward. However, many beginning players tend to run directly to the thrower to set up a mark. If you see this happening, ask these players to shut off the dangerous pass forward first, and only then close in for the mark.

### ***Advanced extensions***

- » As a cup defender, it would be very valuable to know what's going on upfield. However, if you look behind you for even a brief moment, the offense will throw the disc past you. The only time when they cannot do such a thing is when the disc is in the air. That's why, every time the disc is in the air, the cup defenders should briefly look upfield to see what's going on. Developing this habit is very hard though, especially when you're still learning the zone defense, so only tell the experienced players about this.
- » At the moment, the handlers are not allowed to move. However, if space allows it, you can get rid of this constraint. Without this constraint, the handlers can try to work the disc up the field. Every time the disc goes to the other sideline, the handlers should gain a couple of meters. This is a good way to train handling during a zone offense.

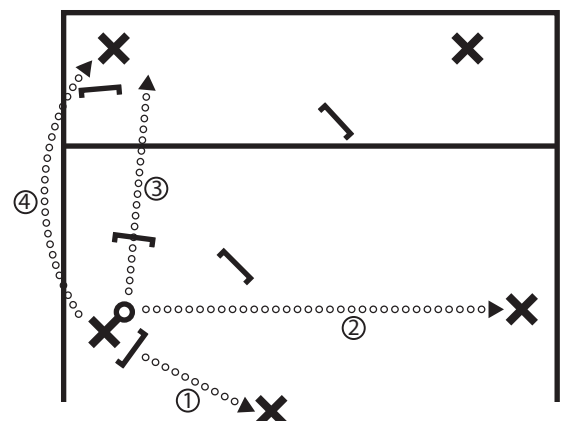


## **17.3. The trap indoor zone defense**

### ***Theory***

In the confining zone defense, the cup prevents the thrower from throwing forward. Alternatively, the cup can also prevent the thrower from getting off the sideline. This results in the trap zone.

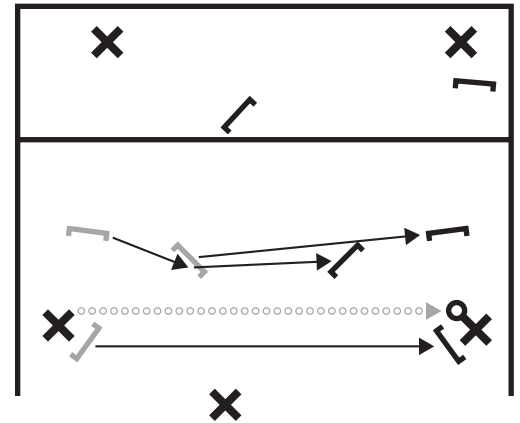
Let's look at the tasks of each defender in this trap zone play. First of all, the marker prevents throws backward to the dump (like pass 1 in the figure on the right). Throws cross-field to the other dump (like pass 2) are prevented by the middle defender. Passes straight upfield (like pass 3) are blocked by the other cup defender. Note that this still leaves the throw along



the outside of the field (pass 4) wide open. It's the job of the deep defender to prevent anyone from catching that throw.

Let's say that the disc is thrown to the other sideline, either directly or indirectly past the middle handler. How should the cup move then? Given the new desired positions of the cup players (see the figure on the right) it's best if the marker always stays on as the marker, while the middle defender runs over to block the throws upfield. This means that the remaining cup defender becomes the new middle defender.

So in short, in a trap zone defense, you always have the same marker. The other two players in the cup form a wall that prevents the disc from getting off the sideline. In this wall, the player that happens to be the "middle" at that time is drawn a bit to the middle of the field. After all, he needs to cover that region as well.



### ***Drill set-up***

For this drill, we again need groups of six: three handlers and three defenders. The offense sets up and starts with the disc on the line. The defense sets up its trap.

Of the handlers, only the middle one is allowed to move. (If he's not, then the offense will have a hard time breaking through the trap cup.) The handlers continuously try to get the disc to the other side. The defense continuously tries to trap them on the sideline.

This drill starts off easily. That is, initially the handlers should wait until the defense has set up its trap. Later on, the handlers don't have to wait anymore. The defense should simply run such that the handlers cannot dump the disc back to the other side right away.

### ***Points of attention***

- » When a beginning player has the task of marking, he often sets up a mark forcing the thrower straight to the sideline. This leaves the backward dump wide open. If you see this, advise the players to really set up the mark a bit (like 30 degrees) behind the thrower.
- » The defense should move in such a way that the handler cannot throw the disc back to the other side with a simple flat throw. If the defense does leave a hole, point this out and suggest ways of fixing it.

### ***Advanced extensions***

- » The advanced extensions are the same as for the previous drill (17.2). You can advise experienced players to look back when the disc is in the air and/or you can allow all handlers to move.
- » You can have a discussion with your team on which zone defense to use when.
  - » A confining zone (when set up well) requires lots of passes to score against. It can sometimes take several minutes before the defense makes a mistake, allowing the offense to score. That's why the confining zone is very powerful against teams with little patience.
  - » The trap zone is different from the confining zone, in that we use one defender to prevent the dump pass. This means that there is one less defender upfield. In other words, there should always be an offensive player open for a well-aimed hammer pass. If you're playing against a team of good throwers, the trap zone is useless. But if the offense is struggling with their hammers, the trap is very powerful.

## **17.4. Adding the rest of the team**

### ***Theory***

It's time to add the last two players to the team. The two deep defenders cover the endzone. The two offensive players try to find the holes in the defense, or run around such that they cause holes themselves.

This drill is basically the same as drill 16.5, except that now the defense knows what it's doing, so it should be a bit harder for the offense. The defense should vary the type of zone they play - confining and trap - trying to find the weakness of the offense.

### ***Drill set-up***

We'll play a five versus five game on a full (20 by 5 meters) endzone. The offense gets five attempts to score. At the start of every attempt, both the offense and the defense can set up as they like. Then the disc is checked in and normal Ultimate rules apply.

### ***Points of attention***

- » In the endzone, the deep defenders should stay in front of whatever offensive player is in their region. If you see that this doesn't happen, and the offense uses it to score, you can mention something about it.
- » Now that we're playing a full game, the middle player kind of has two tasks: being part of the cup and defending the center field. However, it often happens that the middle player is focused too much on being "in the cup." That is, he's positioned too close to the thrower, allowing for overheads to the middle of the field. Advise the middle players to also cover the middle of the field.

### ***Advanced extensions***

- » Again, you can challenge teams to score at least four out of every five points.

#### **Training recap**

In a *confining zone defense*, the defense prevents the offense from throwing forward. There are two possible markers that always force to the middle, toward each other. The middle defender covers the gap between them.

In a *trap zone defense*, the defense prevents the offense from getting off the sideline. There's always the same marker. The other two cup players together are responsible for covering the sideline and covering the center of the field.

# 18. Indoor zone defense fine-tuning

In the previous two trainings we treated the indoor zone offense and defense. In theory, we're done with the subject. However, applying a good zone defense is something that requires lots of practice as a team. There's a massive amount of fine-tuning involved. This training aims to facilitate that fine-tuning.

## *Prior knowledge*

This training follows up on the previous two trainings (16 and 17). Do not give this training before you've given those.

## 18.1. Zone-beating medley

### *Theory*

Indoor zone defenses are rarely beaten with flat throws. To throw a pass through/over the cup, you usually need to curve it in some way. The throws to use for that are of course the hammer and the knife, though also the inside backhand and forehand are useful. It's important to keep on practising these throws.

### *Drill set-up*

This is a basic throwing drill. The distance between throwers is 15 meters. Each player throws 5 inside backhands, 5 knives, 5 inside forehands and 5 hammers. He keeps repeating this for as long as time permits.

### *Points of attention*

- » Make sure players step out correctly. Especially when throwing through a cup, it's often important to step out properly to give the disc the right flight path.
- » Encourage players to throw curved passes, instead of just flat backhands/forehands and vertical knife/hammer throws. Being able to throw a curving pass can be beneficial if you need to keep the disc out of the reach of defenders.

### *Advanced extensions*

- » When players have control over their throws, let them vary the way in which they throw them. Let them throw both slow and fast passes, with varying levels of curves.
- » Let players make a fake before they throw a pass. For example, before throwing a forehand or knife throw, let them fake a backhand.

## 18.2. Confining zone fine-tuning

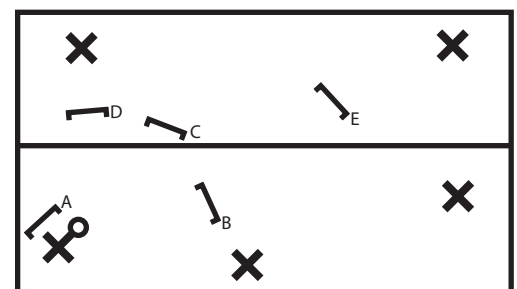
### *Theory*

We already know how the confining zone works. But to be clear, let's repeat the most important aspects.

First of all, we have two cup players. (Players A and B in the figure.) If the disc is on the left side of the field, the left cup player marks, while if the disc is on the right side of the field, the right cup player marks. They always mark towards each other.

The hole between the two cup players is covered by the middle player (C). The two rear players (D and E) each cover a corner of the endzone.

Let's say that the disc is on the left side of the field, as shown in the figure. In this case, it's important that the



deep defender on that side (player D) stays in front of any offensive player that might be around. The deep defender on the other side (player E) is drawn a little bit toward the disc. Since he is further away from the disc, he can cover a bigger region.

In such a situation, the offense usually swings the disc to the other side of the field. The disc flies faster than the cup can run, so for a brief moment the cup is out of position. Until the cup arrives, it's the responsibility of the deep player there (player E) to prevent any pass into the endzone. This also includes a pass to a handler that can jump into the endzone with the disc.

### ***Drill set-up***

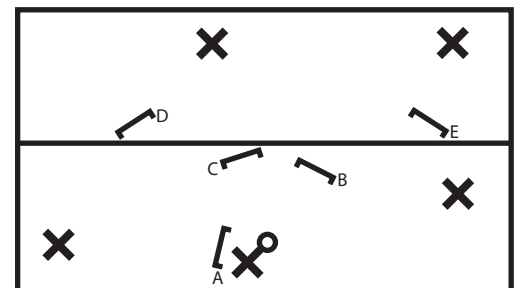
We will practise the full confining zone defense. There are five offensive players and five defensive players. The offense gets five attempts to score. After that, offense and defense switch.

Initially, during the first half of this drill, when the trainer spots a minor mistake, he will call "Freeze!" This means that everyone should immediately stand still wherever they are. The trainer can then point out holes in the defense. Then there's a quick discussion about how that hole can be fixed. In this way, the players learn exactly where they need to be and how they need to run.

Later on, in the second half of the drill, players can simply play this zone defense without having to worry about freeze calls all the time. The trainer only gives feedback in-between attempts.

### ***Points of attention***

- » It often happens that the middle player (player C) is drawn too close to the disc, creating space for a hammer to the middle of the field. If you see this, advise this player to move a bit more toward the middle. After all, player C isn't only part of the cup. He's also part of the three defenders clogging up the endzone.
- » You may get the question how the defense should set up if the disc is thrown to the middle and is not immediately swung to the other side. In this case, the mark should be applied that is easiest to set up. (In the figure of the previous page, if the disc is thrown to the middle, player A should set up a mark. By doing this, defenders don't have to run around the thrower before they can set up a mark, thus saving time.) The other players set up accordingly, such that no pass into the endzone is possible. Note that it's still the responsibility of the deep defender on the far side (player E) to prevent the handler there from jumping into the endzone with the disc.
- » If the disc is swung to the other side of the field, keep in mind that the first priority of the marker (player B) is to shut down any passes forward. So the defender should not run directly to the thrower, but he should first run to the sideline and then close in for the mark.



### ***Advanced extensions***

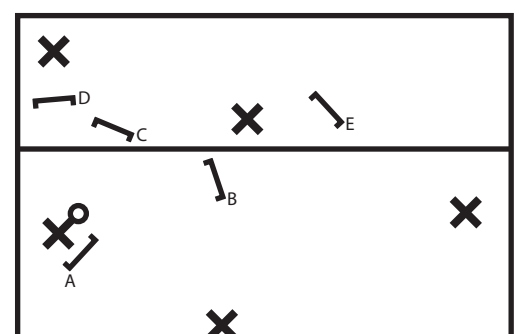
- » This is as game-like as it gets. Of course, you can again challenge teams to score four out of five points.

## **18.3. Trap zone fine-tuning**

### ***Theory***

We also already know how the trap zone works. But let's repeat the details anyway.

First of all, we have one dedicated marker. (Player A in the figure.) He's the only one who ever sets up a mark. His mark is always a bit behind the thrower, to prevent throws backward.



We have the middle players B and C, covering the left and right half of the field. When the disc is on the left side of the field, the left one (player C) covers upfield throws, while the right one (player B) covers the middle of the field. This latter player (B) is also responsible for covering horizontal dump passes. That is, he prevents dump passes directly to the other side of the field.

The deep player on the side of the disc (player D) is responsible for covering the corner of the endzone. The deep player on the far side (player E) is slightly drawn toward the disc and covers a bigger region.

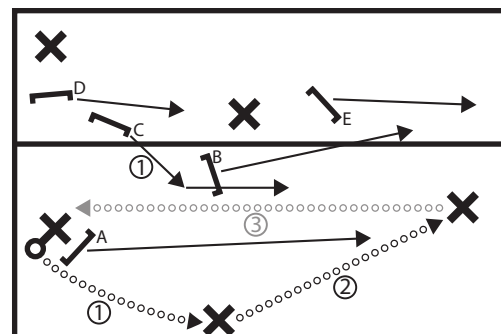
When the disc is swung to the other side (either directly or indirectly), the deep defender there (player E) immediately needs to cover the corner. The middle defender on that side (player B) will block upfield throws while the other middle defender (player C) defends the middle region, preventing horizontal dump passes. Of course the marker (player A) sets up the mark and the far side deep defender (player D) is drawn a bit more toward the disc, defending a bigger region.

### ***Drill set-up***

The drill set-up is the same as that of the previous drill (18.3). We play a full five on five game. Every team gets five attempts to score before switching offense and defense. During the first half of the drill, the trainer regularly calls “Freeze!” to give feedback. During the second half, there’s only feedback between points.

### ***Points of attention***

- » In this drill, players are often tempted to move close to the disc. If this happens, then four players (A, B, C and D) are all within three meters of the thrower. This allows for a very easy hammer score. That’s why the middle player (player B in the previous figure) should keep more distance from the thrower. It’s his job to cover the middle of the field. (Of course, if the disc is on the other side, it becomes player C’s job.)
- » When the disc is swung to the other side (passes 1 and 2 in the figure on the right), the new middle defender (player C) should immediately prevent a potential horizontal dump pass (pass 3) back across the field. To do this, he should first run forward a bit (run 1) before closing in. If you see that a defender does not do this, call a freeze and point out the hole.
- » If the disc is thrown to the middle handler (pass 1 in the figure) and is not immediately swung to the other side (pass 2), then the marker (player A) sets up whatever mark is most convenient. In practice, this will result in exactly the same set-up as for the confining zone defense. (See the figure in the middle of the previous page.)



### ***Advanced extensions***

- » This is as game-like as it gets. Of course, you can again challenge teams to score four out of five points.

## **18.4. Full game zone defense**

### ***Theory***

An indoor zone defense is based on the fact that the endzone is small. In fact, it only becomes powerful when the offense comes close to the endzone. The question is: what do you do when the offense is still far away from the endzone?

The most important thing is of course that the offense doesn’t score. This means that the two deep defenders should stay *behind* any cutter that might potentially run deep. In the meantime, the rest of the defenders can try to apply some pressure. However, it’s not a problem at all if the offense gains distance and gets close to the endzone. After all, that’s when the defense becomes more powerful. The only thing the offense shouldn’t be allowed to do is score.

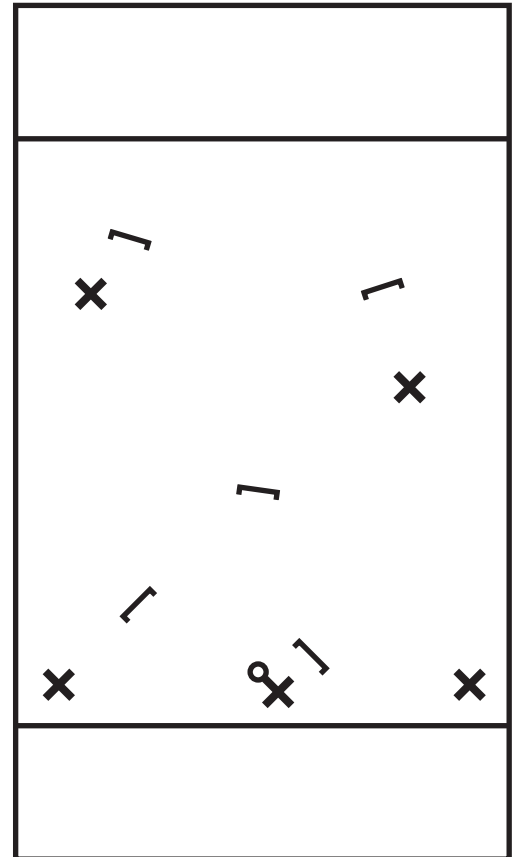


### ***Drill set-up***

We will play an Ultimate match with all the normal rules. At the start of each point, each team should agree (internally) on a type of zone defense they will set up and which player will be in which position. Then we just play the point like we're in a real match.

### ***Points of attention***

- » It often happens that the two deep players are drawn forward, toward the disc, because they want to be “part of the action.” However, if there's any risk of a deep pass, this is a very stupid thing to do. If you see this happening, call out to players to fall back. Similarly, also the middle defender shouldn't be drawn forward too much.
- » The goal of this drill is actually twofold. Of course one goal is to teach players how to set up a zone defense on the full field. However, the second (but not less important) goal is to teach players how to set up a zone defense after a failed offense. Imagine the team is on offense and the disc is dropped. If the other team picks up the disc and immediately throws a deep pass, they score. That's why the first priority after a turn is to set up the two deep defenders. Once they are in place, the rest will follow. If your team often gets scored upon right after a turn, inform the players of this.



### ***Advanced extensions***

- » Discuss with your team the best way to set up a zone defense after dropping the disc. Options include:
  - » Every player is assigned a fixed position which he immediately runs to after the drop. This is simple and clear, making it very suitable for teams with one or more beginners. It's also better for diverse teams, where certain players clearly perform better in certain positions.
  - » Improvise positions after the drop. That is, the two rear-most players become the deeps, the two most downfield players are the cup and the remaining defender sets up in the middle. If done well, this allows for much faster transitions. However, it does require that every player can play in every position.

### **Training recap**

Setting up a good zone defense with your team requires lots of fine-tuning. Practice this as a team, with lots of feedback on the individual positions of players. Also remember that the defender responsible for defending the middle of the field isn't drawn too much toward the disc.

When the disc is close to the endzone, the deep defenders should stay in front of the offensive players. However, if the disc is far away from the endzone, they should stay behind them. They should never allow a successful deep throw.

# 19. Offensive recap training

The last training prior to any tournament or other set of games, you should focus on offense. This is a purely mental thing. If players feel more comfortable being in defense than in offense, they will also, subconsciously, make sure that they will be more often in defense than in offense. In other words, there will be more drops. To get your team ready for scoring, get their minds focused on offense. This training does just that.

## *Prior knowledge*

This training recaps some offensive stuff treated in trainings 10, 11 and 13. You'll want to do those trainings prior to this one. If you haven't, and you still want to have a training focused on offense, feel free to insert some other offensive drills which you have treated before.

## 19.1. Instinctive catching

### *Theory*

Good Ultimate players aren't just able to catch nice flat throws. They're able to catch all sorts of throws, and they do so instinctively as well. This drill practises exactly that.

### *Drill set-up*

This drill is done in pairs. Each pair has one disc. Players are 2-3 meters apart. From this set-up they throw all sorts of passes. Think of backhands, forehands, scoobers, knives, hammers, push-passes, thumbers, thumber forehands and so on. Since this drill practises catching, it's perfectly fine if the throws are inaccurate.

### *Points of attention*

- » This drill is a lot more effective (and fun) if players stop thinking about what they're doing and just try out stuff. Therefore, encourage players to do this drill at a high pace.
- » Some players only catch discs with their right hand. This drill is a good way to practise catching discs with the left hand (off-hand) as well. Encourage players to catch discs with either hand.
- » It's a lot easier to catch unexpected discs when you're low on your feet. If you see that a player is dropping a lot of discs, it's probably because his legs are straight. Encourage him to stay a bit low, with bent knees.

### *Advanced extensions*

- » Tell players to intentionally throw discs in all places. That is, players should throw high passes, low passes and passes which are off to the left or to the right.
- » Tell players to throw each throw using the grip they catch it with. So if they catch a disc with their thumb inside the rim, they have to go for a throw like a thumber, a waffle pass or an upside down backhand.
- » Tell players to throw the disc with the hand they catch it with. This encourages players to also work on their lefty (off-hand) throws. In this case, do check whether players don't catch discs with only their right hand, just to avoid having to throw lefty passes. That would of course defeat the purpose of this drill.

## 19.2. U-play recap

### *Theory*

We've previously already discussed the U-play. In this drill, we're going to recap it.

### *Drill set-up*

This drill is mostly the same as drill 11.4. However, to use the hall space as efficiently as possible, we now split

the hall up into two (see the figure) such that two versions of the drill can be executed at the same time. (You might want to use cones to indicate this split.)

We basically have a thrower with a disc on one endzone line. Upfield are two cutters. The cutter on the sideline cuts in (run 1) and gets the disc (pass 1). The thrower immediately runs after his disc to get it back. (This can be on either side of the in-cutter - whatever is more convenient.)

At the same time, the other cutter runs deep. He either gets the deep pass on his first cut (run 2), or he goes for a seven cut (run 3) to get the deep pass in the other corner (pass 3).

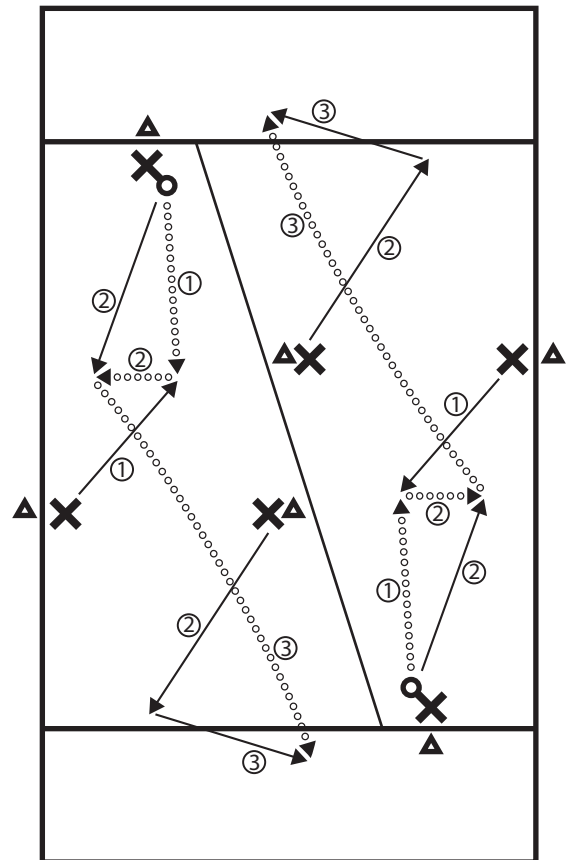
The rotation is actually quite simple. The thrower joins the line of in-cutters. The in-cutter joins the line of deep cutters. The deep cutter keeps his disc and joins the line of throwers on the other side.

### ***Points of attention***

- » Doing this drill in such a confined situation is not optimal. The small distances will quite probably be the cause of some errors. This is to be expected and cannot be fixed.
- » It could happen that one half of the hall runs a lot faster than the other half. In this case, one half will have no waiting line, while the other half has a huge waiting line. If you see this, feel free to send some players over to the other half. When you do this, mention specifically which players should move over to the other half. Otherwise players will only just look at each other, “Who will move over?”

### ***Advanced extensions***

- » If there's plenty of time, you might want to mirror the drill halfway. To do this efficiently, involve players in moving all the cones.
- » If this drill goes really well, you can add defenders to all offensive players. In this case, the rotation goes in pairs. One player is offense on one half of the field, while the other player is offense on the other half of the field.



## **19.3. Handler play recap**

Literally copy drill 13.4. If desired, you can add an advanced extension, though this is by no means required.

## **19.4. Endzone play recap**

Literally copy drill 10.4. This is a very important drill and, if mastered well, will definitely result in a couple of extra points every match. Again, if desired, you can add an advanced extension.

### **Training recap**

It is important that the last training before an important tournament focuses on offense. Recap your most important offensive plays and definitely include your endzone play in this. Get into the offensive mindset.

## 20. Jump training

I guess I won't have to tell you why jumping is important in Ultimate. This training will teach players the proper jumping technique to get up as high as possible. In addition, they'll learn how to apply these jumps in a defensive scenario as well.

### *Prior knowledge*

It is recommended to have done the one-handed catching drill (drill 13.1) prior to giving this training.

### *Extra note*

Since the legs of players will be absorbing quite some impacts, a proper warming-up is important here. It would be wise to do a warming-up that includes all of the high-intensity warming-up routines of section A.3. Especially the high skipping and rock-hopping/ice-skating drills are important.

## 20.1. Jumping - part 4 - the landing

### *Theory*

Due to safety aspects, we start our jump training with the landing phase. What is the best way to land?

The best way to land after a jump is on two feet. You land on your toes and you use your legs to damp the impact. You really ought to bend your legs, dropping your center of mass by roughly 30 centimeters, to smoothly absorb the hit.

### *Drill set-up*

Everyone just tries out jumping and landing. This can be in any random place on the field. The focus here is on landing properly, bending the knees upon impact. Do this for two to three minutes.

### *Points of attention*

- » Make sure players land on two feet, on their toes (not so much on their heels) and bend their legs to absorb the impact. Especially on a hard indoor floor, you want players to be able to land properly, or injuries will ensue.

## 20.2. Jumping - part 0 - finding your favorite jumping leg

### *Theory*

There are many ways to jump. You can jump from one foot or from two feet. You can jump from a stationary position or with a small run-up. The way to get up the highest in Ultimate is to run and then jump from one foot. That's what we're going to practise.

So, which leg do you jump from? In a match, it depends on whatever stride you happen to be in. So you should be able to jump from either leg. However, most players do have a preference for a certain leg. It's beneficial to be aware of which leg this is. So the first mission is: figure out which leg you prefer to jump from.

### *Drill set-up*

Everyone gets one to two minutes to figure out jumping from which leg feels the most comfortable.

### *Points of attention*

- » Players should still land properly, even when they're focusing on something else. This is the time to check whether they do so or not.

## 20.3. Jumping - part 1 - the wind-up

### *Theory*

When jumping, you want to get up high. And to get high, you have to sling up as many body parts with as high of a velocity as possible. To be able to do so requires you to get low first, winding up for your jump.

Let's say that you're running and that you're going to jump from your left leg. When you put down your right leg prior to that, you should already be going low. And what's more: both of your arms should be rotated backward, ready to swing forward/upward. Your upper body is tilted slightly forward.

### *Drill set-up*

Have players practise the wind-up for one or two minutes. They should start off with a wind-up for a jump on their preferred leg. Players with good jumping form can also practise jumping off of their non-preferred leg.

### *Points of attention*

- » A player should be low on his non-jumping leg. His arms should be wound up backward.
- » It helps if you first look at an experienced jumper to know what the form should look like, and then use that image to help other players with their form.

### *Advanced extensions*

- » Players with good form should also train jumping from their non-preferred leg.

## 20.4. Jumping - part 2 - the swing-up (a.k.a. the jump)

### *Theory*

Part two of the jump is the swing-up. You basically swing up as many body parts with as high of a velocity as possible. This includes both your arms as well as your non-jumping leg. Next to this, it is also very important to use the knee and ankle of your jumping leg to push off, gaining that desired upward momentum.

You continue to swing everything upward, gaining upward momentum, as long as you're in contact with the ground. And of course, the longer you are pushing yourself off from the ground, the more upward momentum you get. So you want to keep on pushing off for as long as possible.

In other words, the moment you lose contact with the ground, you should have your jumping leg (both the knee and the ankle) fully stretched out. At the same time, your arms and the upper part of your non-jumping leg should be roughly horizontal, moving upward with as high of a velocity as possible. This should launch you into the air with a lot of speed.

If you do this well, with a proper run-up, you transfer all of your horizontal velocity into vertical velocity. That's why, with a proper jump, you land almost exactly on the same spot as where you lifted off from.

### *Drill set-up*

Players should now try to jump using the proper technique. They can do this for about five minutes or so.

### *Points of attention*

- » Keep in mind that players should land properly.
- » Also focus that the wind-up is going well. Players should already be low even before their jumping leg touches the ground. In fact, the moment the jumping leg touches the ground is the moment when everything starts to go up.
- » Some players that have little jumping experience do not lift up their knee. This is a fundamental aspect of jumping though. So if you see this, advise the player to swing up their knee as high as possible.

- » A lot of players, when jumping with a brief run-up, will fly forward for two to three meters. This is a waste of kinetic energy. Advise these players to experiment with jumping more upward instead of forward.

### ***Advanced extensions***

- » Players with good form should also train jumping from their non-preferred leg.

## **20.5. Jumping - part 3 - the push-down (a.k.a. the flying)**

### ***Theory***

So you've lost contact with the ground. You're in the air, flying. What do you do?

Your goal is to get your catching hand up as high as possible. To achieve this, you push everything else down. Both of your legs should be stretched out, and your non-catching hand should go down as well. (Of course this isn't required if you're doing a two-handed catch. But this does cost you a few centimeters of height.) Everything is focused on raising that catching hand up just a little bit higher.

### ***Drill set-up***

Players should keep on jumping, but they should now also focus on stretching out in midair.

### ***Points of attention***

- » Keep in mind all of the points of the previous drills. Players should wind up and jump properly. They should land properly. And they should land roughly at the spot they jumped from. (Not more than one meter further.) If they don't do that properly, then this drill (which gives them only a few centimeters extra) is as good as useless.
- » If you're not used to it, pushing the non-jumping leg down is hard. And so is pushing the non-catching arm down. But the hardest part is to do both of this simultaneously. Advise players that only push their leg down, or only push their arm down, to push their other limb down as well.

### ***Advanced extensions***

- » Players with good jumping form should also train jumping from their non-preferred leg.
- » If possible, it might be nice to get some reference point to jump for. For example, if there's a soccer goal, let players jump for the goal post. If there's a basket, let players jump for that. (Warn them not to put their fingers in the net.) This encourages players to jump higher and beat themselves.

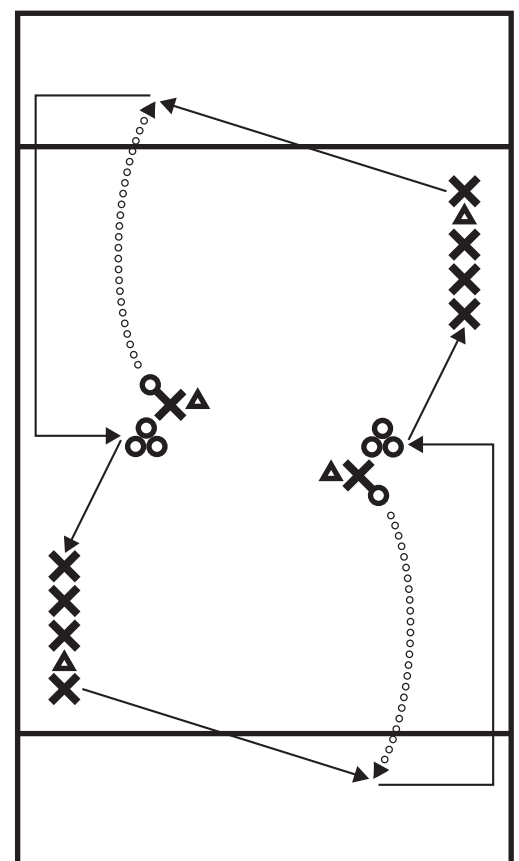
## **20.6. Jumping for discs**

### ***Theory***

In an Ultimate match, you usually jump to catch a disc. To successfully do so, you need to have the proper jumping form, but also the right timing. And that's exactly what we're going to practise in this drill.

### ***Drill set-up***

We have a thrower with lots of discs in the middle of the field. (See the figure on the right.) To make this drill effective, this should be a thrower with at least one year of experience. We also





have a line of runners near the sideline.

One of the runners from the sideline will run to the far corner of the endzone. (This is like the last part of a seven cut.) The thrower will then throw a high outside pass, with an angle of roughly 30 degrees, into the endzone. The goal of the runner is to catch this disc as high up as possible. After all, the higher you can catch a disc, the sooner you can have it in your hands, and the lower is the chance that your opponent might get it.

The rotation is simple. After catching a disc, you run to the thrower and put down the disc there. (Don't throw the disc back to the thrower! That'll only result in stray discs, which players may step on.) If you're an experienced thrower yourself, you may offer to replace the current thrower. If not, you join the line of runners on the other side of the field.

Halfway through this drill, we mirror everything to also practise catching discs coming in from the other side.

### ***Points of attention***

- » It is important for this drill that the passes are suitable for high catches. Encourage throwers wherever necessary to throw outside throws. A flat throw would stay up in the air at the same height and is often either too high or too low. A near-vertical throw would come down very quickly and many players would just be tempted to wait that extra split second until it comes down. The ideal throw is slightly outside.
- » Advise players wherever possible on how to improve their jumping form.

### ***Advanced extensions***

- » You can instruct the throwers to throw hammers and knives to experienced players. These throws should still be caught as high up as possible.

When a hammer pass arrives upside down, it is very hard to catch it one-handed. It is often wiser to catch it with a two-handed rim catch, despite the fact that this extra arms costs you two centimeters in height. When catching, do keep in mind to have your thumbs in the same plane as the rest of your fingers.

## **20.7. Jumping to defend**

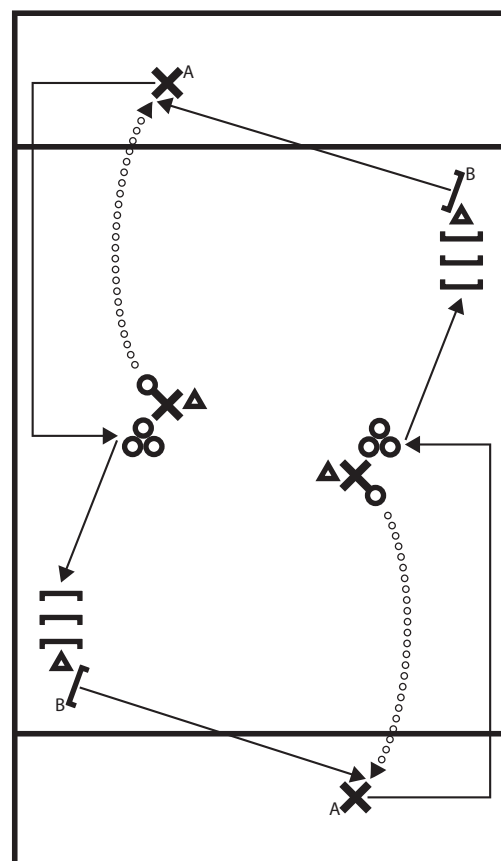
### ***Theory***

Imagine a situation in which an offensive player is standing in the endzone and is about to receive a fast and high pass. You're a defender and you're a bit late. You might be just in time to block the disc though. What do you do?

Many defensive players try to catch the disc. However, half of the time they misread the disc, jump under it, and give the offense an easy score. These defenders are forgetting what their goal is. Their goal is *not* to catch the disc. It's to *prevent the offense* from catching the disc.

So what do you do? When running up to the disc, you check out where the offense is. You then aim your jump such that you jump right in front of the offense. This jump should be as close as possible to the offensive player without causing a foul.

Now either of three things can happen. If the disc arrives a bit lower than expected, you can easily catch it. If the disc arrives a bit higher than expected, then it will fly over both players and hit the ground. Only if the disc is exactly in the right place does the offense manage to score. But then again, in that situation you (the defense) wouldn't have stood a chance anyway.



### ***Drill set-up***

We are going to practise this in a drill similar to the last one (20.6). However, now an offensive player is already standing still in the endzone, waiting for a pass. (This is player A in the figure on the previous page.) The moment the defender (player B) starts to run, the thrower also throws the pass.

The job of the defender is to prevent the offense from catching the disc. He does this by jumping in front of the offensive player. If the defender catches/blocks the disc, or if the disc flies over the offensive player, the defender has done a good job.

Halfway through the drill, mirror everything.

### ***Points of attention***

- » Many defenders are still tempted to try and catch the disc. Whenever this goes wrong, discuss this with the player.
- » Sometimes the thrower will throw a pass that's significantly too high. In this case, players may ask whether they should still jump in front of the offensive player. Of course, if they're 100% sure that the disc is too high, it's pretty useless to do this. In that case, it would be better if the defender would run behind the offensive player and blocks him out. That is, he uses his position to prevent the offense from getting to the disc. (You only need to tell this when players ask questions about it though.)
- » Some defensive players often collide with the stationary offensive player. This is a foul and should of course be prevented. It's usually caused by the fact that the player is looking too much to the disc. Instead, most of the focus of the defensive player should be on the offensive player. "Where does he position himself? And how should I run such that I can jump right in front of him?"

### ***Advanced extensions***

- » For more advanced players, you can allow knife and hammer throws.
- » Instead of having the offensive player already be in the endzone, let him start off with a run as well. In this case, the offensive player should of course get a significant head start, and the pass itself should be late enough to at least give the defense a chance to intercept it.

### **Training recap**

When going for a one-legged jump with run-up, you first go low on your non-jumping leg and swing your arms backward. This is the wind-up. Next, you swing every part of your body upward with as high a velocity as possible. This is the actual jump. As soon as you're in the air, you push every part of your body down, except for your catching arm. With that arm you make the catch. You then land on both your feet, bending your legs to dampen the impact.

When you're on offense, you want to catch discs up high. To do so, pay attention to both your jumping form and your timing.

When you're on defense, things are different. Now your job is to *prevent the offense* from catching the disc. To do this, aim your jump to be right in front of the offense. If you jump at the right time, then you will almost always either get the disc, or see the disc fly over the both of you.

# 21. Fun training

Sometimes you don't want to throw around with discs because you love Ultimate so much. Sometimes you just do so because it's fun. This training focuses exactly on those fun aspects of throwing plastic.

## *Prior knowledge*

This training doesn't really require any prior knowledge. It's also not used (or useful for that matter) for anything else. That makes this training ideal for any week in which you have a holiday or something else that prevents a big part of your team from making it to the training.

## 21.1. The thumber throw

### *Theory*

Let's say that you're just throwing for fun. When you catch a disc you're of course too lazy to change grips. If you catch a disc with your thumb up, that's not a problem. You can throw either a forehand or a backhand throw. But what if you catch a disc with the thumb down? In that case, one option is to throw a *thumber*!

When you throw a thumber, the bottom (inside) of the disc is facing you. The grip is a bit different from what you're used to. First, you put your thumb inside the disc. You then turn your hand into a fist, such that your other four fingers are below the disc.

Next, you throw the disc in a very similar way as the knife throw. That is, the disc is to your right (for right-handed throwers) and its orientation is near vertical. The bottom is still facing you. You then snap your wrist to put spin in the throw. When you throw the disc, it will turn upside down and should arrive flat.

### *Drill set-up*

This is a basic throwing drill. Make pairs. The distance between throwers should be 10 to 15 meters.

### *Points of attention*

- » The first thing which players will struggle with is the grip. Some will find completely different ways to throw a disc. Though this is not necessarily bad, it's not exactly the point of this drill, so fix that first.
- » Some players will release the thumber horizontally. However, because it's an upside down pass, the disc will rotate during its flight and arrive almost vertically. This makes the disc hard to read and hard to catch. Instead, have players release the disc vertically. During the flight it will rotate to a horizontal orientation.

### *Advanced extensions*

- » Players that are getting a hang of the thumber throw can further experiment with it. Tell them to vary the angle at which they throw the disc. Or they can catch the disc and throw it back without using their off-hand at all. Or they can try to throw long-distance thumbers.
- » Alternatively, players can learn the *duck* throw. This throw has roughly the same grip as the thumber but is thrown like a backhand. For right-handed players, it's released near the left shoulder. (Note that this throw is not upside down.)
- » If players really like to learn silly throws, you can also teach them the *wheel of death*. This throw has the same grip as a backhand throw but is thrown similarly to the thumber. That is, for a right-handed throw the disc is on the right side of your head, with the bottom of the disc facing your head. You then throw the disc away vertically, after which it will rotate toward an upside down orientation, just like a thumber.

## 21.2. The waffle (overhand) throw

### *Theory*

Another throw with the thumb inside the disc is the *waffle* throw, also known as the *overhand* throw. The grip is a bit different though. While the thumber throw had the bottom of your thumb against the rim, the waffle throw has the top (that is, the fingernail) of the thumb against the rim. The other four fingers are on top of the disc, pointing roughly toward the middle.

To throw the waffle, first extend your throwing arm horizontally to the side, such that the top of your wrist points forward. To start the throwing motion, you first move your shoulder forward, then your arm follows, and you end with a wrist snap, putting a lot of spin in your throw.

The waffle throw is a throw which is quite suitable for a greatest. (A *greatest* is a move in which a player jumps out of the field, catches a disc in midair and throws it back into the field before he lands.) The greatest is quite rare in a match, and is hard to pull off at that, but that makes it all the more exciting when it actually works.

### *Drill set-up*

This is again a basic throwing drill. Make pairs. The distance between throwers should be 10 to 15 meters.

### *Points of attention*

- » The first thing which you should again fix is the grip and the throwing motion. Just like with the thumber, this is a new and unfamiliar throw and some players will initially do it completely wrong.
- » If the disc appears to have little spin, then the player is not properly snapping his wrist.
- » If the disc is flying too much “outside” (like an outside forehand), the disc should be thrown more inside. One option for this is to lower the arm, but another option which often works better is to slightly adjust the angle of the wrist. The moment the disc is thrown, the disc should be hanging almost vertically down from the hand.
- » If a player wants to get more power with his throw, then he should use his body more. A powerful waffle throw, having lots of spin, starts with the hip moving forward, then the shoulder and only then the arm. It ends with a very strong wrist snap, as if the arm is a whip.

### *Advanced extensions*

- » Players that are doing really well can try to vary the angle at which they throw the waffle pass and the distance with which they throw it.
- » When you’re doing a greatest, you generally don’t throw forward. Instead, you jump into the air, catch the disc and immediately throw it behind you. That’s why you can also challenge players to turn their back toward the receiver and still try to throw a proper pass.
- » Of course you can also challenge players to jump into the air, catch the disc and throw it back before they touch the ground. This is a good practice for a greatest.
- » Alternatively, players can learn the *thumber forehand*, also known as the *beach thumber*. This throw has roughly the same grip as the waffle pass, but is thrown like a forehand.

## 21.3. Mini Ultimate

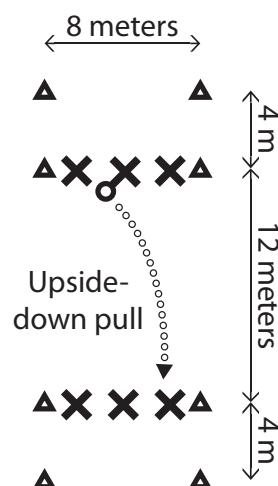
### *Theory*

One game which requires lots of quick throws is *Mini Ultimate*. This game is similar to Ultimate, but it has a few peculiar rules.

- » The field is, as expected, rather small. It’s only eight meters wide. Endzones are four meters long. The

central playing field is twelve meters long. (Also see the picture on the right.)

- » Mini Ultimate is played three versus three.
- » When a team scores, it stays on offense. The scoring player should only call “score” and may then immediately attack the opposite endzone. (So yes, if a team throws knives/hammers back and forth across the endzones, they can score lots of points really quickly.)
- » There’s only one pull in the entire match. This pull has to be upside down.
- » The stall count is six. So when a marker says six, there’s a turnover.
- » When a team scores, it gets one point. However, when there is a turnover, the team that lost the disc gets minus one point.
- » The first team that reaches plus three points wins. Or, if a team reaches minus two points, it loses and the opponent wins.
- » The winning team stays on and pulls next. The losing team goes off. The first three players that make it to the opposite endzone line constitute the new opposing team.



This drill is great for working on your reaction speed. It’s also great for trying out stuff which you normally never do in a match, like that crazy overhead throw, that strange push pass or that new waffle throw. Oh, and did I mention that Mini Ultimate is fun too?

### Drill set-up

The drill set-up is easy. Just make small fields and start playing. If you have a large group, you should of course make multiple fields. If you’re doing this drill briefly, set up one field for every eight players. If you’re doing this drill for longer than ten minutes, or if you don’t want to tire out the players too much, use one field per ten to twelve players.

### Points of attention

- » If the group of players is relatively inexperienced, there will be lots of turnovers. No team will ever reach the three points. If this is the case, you might want to drop the rule that a turn equals minus one point.

### Advanced extensions

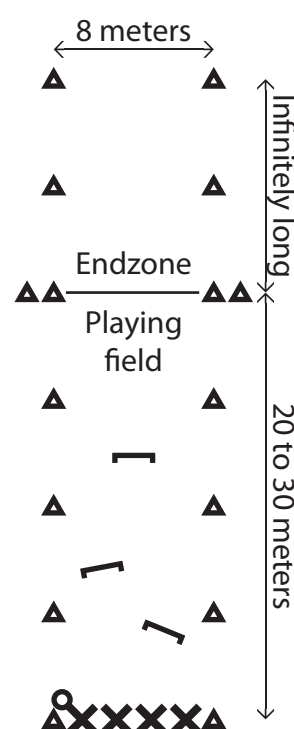
- » Try Mini Ultimate as a warming-up drill on tournaments! When you’ve already played a match in the past hour, the core of your body is still warm. You only need to warm up your outer muscles and get your mind focused on the upcoming match. Mini Ultimate achieves both.

## 21.4. The Tube

### Theory

A game which is similar to Mini Ultimate is *The Tube*. In this game, you have a field which is eight meters wide, but infinitely long in both directions. There is a line in the field. Everything on one side of this line is the endzone. Everything on the other side is the playing field.

- » The tube is played four versus three. The four offensive players start on the starting line, twenty to thirty meters away from the endzone. The three defensive players can start wherever they want.
- » When both teams have entered the field, the play can immediately begin.
- » Just like in Mini Ultimate, the stall count is six.



- » If the offense manages to score in the infinitely long endzone, the offense wins. If there is a turnover, then the defense wins.
- » After a score, the first four players that make it to the starting line play on the offensive team. The first three players that enter the playing field and put their hand on their head get to play defense.

The Tube is a great game to practise defending a region, like you do in a zone defense. And, just like with Mini Ultimate, it's also a good occasion to try out stuff and to have fun.

### ***Drill set-up***

The drill set-up is again easy. Set out the field and start playing. You should have roughly one field for every ten players. If you're doing this drill for longer than ten minutes, use one field for every twelve players.

By the way, If there is no line which you can use as endzone line, you can also mark the line by using cones of a different color. If these aren't available either, you can put down two cones instead of one, as shown in the figure on the previous page. Don't put cones inside of the field for safety reasons though.

### ***Points of attention***

- » If the defense always wins, advise the offense. That is, tell them to split up. If the offense puts enough distance between all of their players, then no defender can cover two offensive players. There's always someone open for an easy and safe pass.
- » If the offense always wins, advise the defense. A good strategy is to have one player prevent deep passes. The other two players set up a cup like in a confining zone defense (see training 17) in which one defender is marking toward the other defender. This other defender subsequently blocks the upfield passes.

### ***Advanced extensions***

- » You can vary the distance between the starting line and the endzone line. You should then check if this makes a difference on the way both teams play. Since the field is infinitely long, it shouldn't make a difference. If it does, see if you can figure out why.

### **Training recap**

A throw that's nearly useless in an Ultimate match is the *thumb* throw. You put your thumb inside the disc, turn your hand into a fist and throw it like a knife. It should start off flying vertically but turn upside down during its flight.

Another nearly useless throw is the *waffle* throw. Your thumb is again inside the disc, but the other four fingers are now on top of the disc. You throw it right-side up like a high-release forehand. The wrist snap is very important.

A great game to practice your reaction speed - and funny throws - is *Mini Ultimate*. You play three versus three on a tiny field. If you score, you stay on offense. A turnover costs you a point. The first team to reach three points wins, or the first team to reach minus two loses. The stall count is six.

Another fun game is *The Tube*. Now you have a narrow but infinitely long field. The four offensive players need to make it past the endzone line to score and win. The three defenders try to prevent this. The stall count is again six.



## 22. Defensive running technique

Running in defense is fundamentally different from running in offense. In offense you initiate. You act. You can run at full speed without worrying about anything. In defense you react. This means you always have to adjust to unexpected events. To be able to do so, you always have to be low - if you're up high you cannot react quickly - and you must be balanced - you must have your center of mass between your feet. This training trains players on these things.

### *Prior knowledge*

This training references a lot to the training on offensive running techniques (training 14). Make sure you have done that training (or at least the first two drills 14.1 and 14.2) before you do this one.

### *Extra note*

During your warming-up, you can also incorporate a few elements of training 14. If you briefly insert (elements of) drills 14.1 and 14.2, players will both physically and mentally be more ready for the upcoming drills. Plus, it's a nice way to recap.

If you do the drills of these training on a grass field, then your field will be pretty much destroyed. Luckily, they don't require a lot of space. Therefore, do these drills in a place which you never use anyway.

### 22.1. Rope ladder drill

#### *Theory*

In defensive running, it's important to stay low and remain balanced. The best way to do this is to run with lots of short quick steps. However, many players often trip over their own feet when doing this. To train taking lots of short quick steps, a rope ladder drill is ideal.

#### *Drill set-up*

If you have a rope ladder, spread it out on the ground. If not, an alternative is to use cones. These cones represent the wooden rungs of the ladder. Spread out ten cones with half a meter in-between each. (See the figure on the right.) Use one ladder (or one set of cones) for every six to ten players. You should also put one cone 10 to 15 meters past the ladder.

Now players should do the following drill. They should put two feet in each ladder square. So it's "left, right, next square left, right, next square left, right" and so on. Once a player has finished with the ladder, he goes for a quick sprint to the last cone and does a chop stop there.

Let players first do a slow run, to get used to the drill. Then follow up with two intensive runs. You can also turn these two intensive versions into a relay race between groups. The next runner may start when the previous player has finished his ladder and takes off for the sprint.

Next, you can continue with some of the following variations. (Every time, do a slow version first before you do two intensive versions.)

- » Apply the pattern in which players put two feet in each ladder square and then put one foot next to the ladder. So it's "left, right, left next to the ladder, next square right, left, right next to the ladder," and this is repeated.
- » Apply the pattern in which players go forward three squares and then backward one square. So it's "left, right, next square left, right, next square left, right, previous square left, right," and this is repeated.
- » Mix up the first and the second pattern. That is, let players go forward two squares and only then step to the side. So it's, "left, right, next square left, right, left next to the ladder, next square right, left, next square right, left, right next to the ladder," and this is repeated.



### ***Points of attention***

- » Some players might need some time to figure out the exact stepping pattern. During this time, they feel somewhat uncomfortable. The fact that they feel uncomfortable is good. It means they learn. However, players may not like this. Set them at ease by letting them try out the stepping pattern on their own pace.
- » The idea is to remain balanced with minimal effort. To do this, it helps if your center of mass is low and stays low. If you see a player that bounces up and down a lot, advice him to keep his center of mass steady.
- » Another sign that a player does this drill well is if his steps have a constant rhythm. If a player puts down his feet with a varying rhythm, there's probably a moment when he has no contact with the ground. At that moment he's out of balance. Therefore, encourage players to use a constant rhythm.

### ***Advanced extensions***

- » You can make this drill physically a bit tougher with this fun extension. This time, when a player does a chop stop at the final cone, he has to stay in a low position. (That is, his center of mass should be low, but his body should still be upright.) It's only when the next player comes and taps him on the shoulder that he turns around and sprints back to the waiting line.
- » When you often do this drill, players get used to the patterns. It's important that players continue to feel uncomfortable with the footwork patterns. This means that they learn. So keep on varying patterns. A few more patterns are given in appendix C.2. Think of new ones yourself too. You can even put two ladders next to each other to make more complicated patterns. Be creative in this.

## **22.2. Defensive cutting and turning**

### ***Theory***

Staying low and balanced as often as possible is important. But when the player you're defending starts running at full speed, then you have to follow at full speed. And when you do this, your center of mass rises up. You're vulnerable.

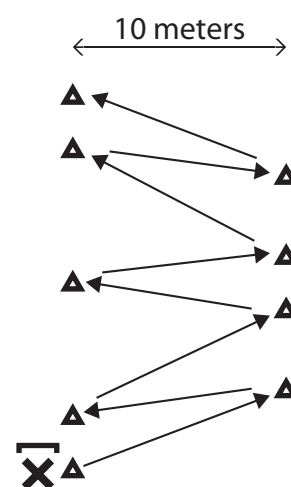
There are two things which you must do to cope with this. First of all, as soon as you slow down, get low again. Secondly, always turn such that you keep an eye on your offensive player, even if this means you have to turn in a slightly inefficient way.

### ***Drill set-up***

Set up a running pattern in which players need to cut in a variety of angles. (See the figure on the right for an example.) If this variety of angles is slightly confusing to players, you know you've set things up well.

For the first part of this drill, simply tell players to run this pattern twice. Don't give any additional points of attention. (Okay, except to use a chop stop at every cone.) When players run this pattern, they will probably turn in whatever way is convenient. But this is offensive running. Not defensive running!

For the second part of this drill, order players to apply defensive running. They should always turn in such a way that they keep facing an imaginary offensive player. That is, they should always turn such that they briefly face downfield in the picture on the right. Do this four times. The first time, tell players to run at 60% intensity, to get used to the pattern. The second time is at 80% intensity. The last two times are near 100% intensity.



### ***Points of attention***

- » Some players will still try and turn with one strong step. Advise these players to get low and use lots of quick steps when turning. Especially if you do this drill on a grass field, and the grass turns to mud, lots

of quick steps will prevent players from slipping excessively.

- » During the defensive running, some players will still turn in the wrong way. Encourage them to turn in the right way. If they appear confused, see if they understand the general idea. If not, you can consider running along as offensive player. Then tell players to turn such that they never lose sight of you.
- » This drill and the drill prior to this (drill 22.1) are both quite tiring. It is strongly advised to schedule a two-minute water break after this drill.

### ***Advanced extensions***

- » You can add extra running patterns to this drill. For example, you can add some parts where players need to do low sidesteps, need to run backward while being low, etcetera. Or you can add even more different (and uncomfortable) cutting angles, to try and see if you can let players trip over their own feet. Remember, the more uncomfortable players feel with the drill, the more they learn. Don't make the pattern too difficult though. Players should not study for ten minutes to figure out what to do in the first place.

## **22.3. Keeping margins**

### ***Theory***

Now we know how defensive players should run on short and on long distances. But so far things have been rather predictable, and defensive running is definitely not predictable. So let's add an unpredictable offensive player. The goal of the defensive player now is to keep a margin with respect to this offensive player.

### ***Drill set-up***

In this drill, players pair up. We have one offensive runner. This runner will run a random cutting pattern. He will *not* run in curves. He will run in straight lines and occasionally switch direction. (See the figure on the right.) After all, that's also how offensive players run in a match.

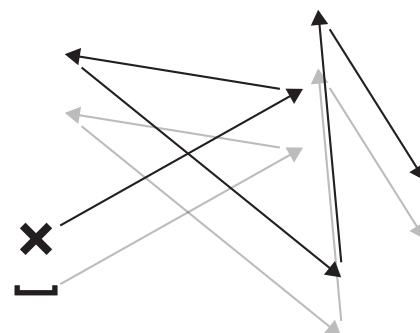
The defensive player has as goal to keep a margin from this offensive player. That is, he should always be two to three meters on one side of the offensive player.

We're going to do this drill three times per player. During the first round, the offensive runner should take things very easy. He should jog close to walking speed. During the second round, he should apply a normal jogging speed. Only during the third round will the runner really try to give his defender a challenge.

Time will be kept centrally. Every session lasts forty seconds, after which players have twenty seconds to switch roles, kick out their legs and catch their breath a bit before the next session starts.

### ***Points of attention***

- » This drill might get slightly dangerous if the field is too crowded. If you have lots of players and are short on space, tell players that it's the responsibility of the offensive player that his defender doesn't run into anyone. After all, in a game that would be a pick and you want to avoid that too.
- » Some offensive players have the tendency to run in fancy curves. This doesn't make the drill more realistic or effective. Advise these players to run in straight line segments.
- » Some offensive players are eager to run quickly. Especially during the first round, this should be avoided. After all, in this case the drill will be very tiring for the defender, and because he gets so tired, he cannot focus on his footwork anymore. When you see this happening, tell the offensive to slow down a bit.
- » The focus of this drill is on the defense. Many defensive players just run along with the offensive player. But then, every time the offensive player changes direction, they lose their margin for a brief moment. Encourage players to stay low all the time, for the full forty seconds. This will be extra tiring, but if players



start applying this in a match, they will be much more powerful defenders.

### ***Advanced extensions***

- » If this drill goes well and defensive players are getting bored, you can give the offense more freedom. For example, let them run at higher speeds or let them vary their speed a lot during this drill.
- » This drill is physically quite demanding. However, it focuses really well on the muscles which defensive players use often. Do this drill on a high intensity every training and players will get into a very good shape for playing defense. (Note that for offense you need a mostly different combination of muscles.)

## **22.4. Box of death**

### ***Theory***

In the last drill we had a defender reacting to an offensive player. This is nice, but we can still let things get more game-like. It's time to let defenders react to an offensive player that actually wants to get a disc.

### ***Drill set-up***

This drill is done in groups of six to ten. For every group, set out a rectangle of four meters wide and eight meters long. (See the figure on the right.) Also place a cone eight meters in front of the rectangle and a cone three meters past it.

An offensive player and a defensive player will enter the rectangle. The offensive player can score in either of two ways. He can score by getting the disc inside the rectangle on an in-cut, but he can also score by reaching the back cone before his defender leaves the rectangle. This means that he has a lead of more than three meters. In other words, he would be open enough for any potential deep pass. (The deep pass will not be thrown though, to keep the drill running smoothly.)

This drill has a loose rotation. Most players hang around the rectangle, watching the drill. When two players are ready to try this drill, they enter the rectangle. Afterward, the offensive player takes the disc and joins the line of throwers.

### ***Points of attention***

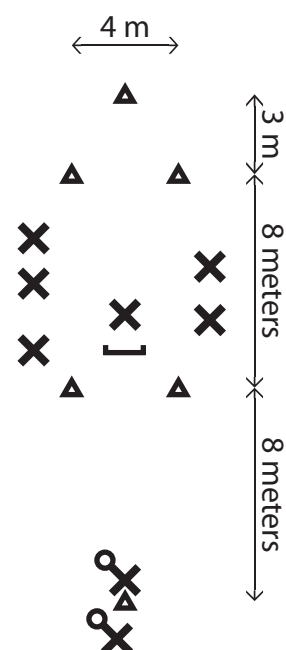
- » For the offense, the trick is to make long cuts. If the offensive player makes a long cut and nearly reaches his full speed, the defensive player also has to run at full speed. At this point, he is vulnerable. That's exactly the moment in which the offense can beat the defense. So if you see offensive players that have trouble getting open, or that just make short cuts, advise them to make long cuts.
- » For the defense, the pointers of the previous drills still hold. Stay low and balanced whenever you can, and always be prepared for when the offense suddenly turns around.

### ***Advanced extensions***

- » A slightly more advanced trick for the defensive player is to use his body to prevent the offensive player from passing him. By keeping his body in-between the offensive player and the disc, and by moving along sideways whenever the offensive player moves sideways, the defensive player can make it very hard for the offensive player to get the disc on an in-cut.

This will quite likely result in a question from your players: when is this a foul? The rules for this are clear. A defender may not prevent the movement of an offensive player with his arms. This would be a defensive foul. Also, a defender may not jump in front of an offensive player such that the offensive player cannot avoid contact. This would also be a defensive foul. (Of course, the words "cannot avoid" can at times be somewhat subjective.) Any other type of contact would be an offensive foul.

- » You can make this drill easier for the offense - and of course harder for the defense - by making the rec-



tangle bigger. Making it wider will allow the offense to more easily pass by the defense. Making it longer will allow the offense to make longer cuts, thus making it more easy to get the defense off-balance.

- » Another variation of this drill is drill 8.5. (For indoor Ultimate, use an endzone of 5 by 12 meters though.) Since this drill is about the defense, you should tell the offense to run as much as possible. This may be contrary to our endzone play, but it does challenge the footwork of the defensive player much more.

### **Training recap**

Defensive running is fundamentally different from offensive running. You don't act. You react. So you should stay low and balanced as much as possible. You move with lots of short quick steps.

It is only when running at full speed that your center of mass rises up a bit and your strides become longer. As soon as you slow down, you get low again.

When turning, you should always turn such that you do not lose sight of the player you're defending, even if this means you turn a bit less quickly.

An advanced defense trick is to use your body to prevent the offense from getting past you. By properly positioning yourself, you can make it very hard for an offensive player to reach a certain place in the field.

## 23. Disc processing

Having good disc processing skills - catching a disc and quickly being ready to throw it again - can significantly improve your game. This training focuses on those disc processing skills.

### *Prior knowledge*

This training doesn't really require prior knowledge. However, it does work better if players already have some basic skills. Having done the heads-on drill (15.1) prior to this is recommended. It's also nice to have done the instinctive catching drill (19.1) sometime earlier. If not, you might want to do that instead of the upcoming break the mark drill. If time allows, you can also add an advanced extension.

### 23.1. Break the mark

The break the mark drill is familiar by now. Nevertheless, it's important to do this drill regularly. That's why we're doing it again here. See drills 8.1, 8.2 and 12.1 for details.

### 23.2. Disc overload

#### *Theory*

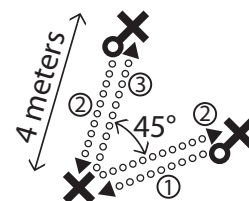
If you are able to catch a disc and quickly throw it again, you can speed up your game. This will make it much harder for the defense to keep up with you. To practise disc processing, we'll do a drill called disc overload.

#### *Drill set-up*

We'll have one "overload victim." There will be two throwers roughly 4 meters away from him, with a 45 degree angle in-between them.

At the start of the drill, one of the throwers will throw the disc to the overload victim (pass 1). The overload victim catches this disc and immediately throws it back (pass 2). However, at the same time the other thrower has already thrown his disc (the other pass 2). In this way, the two throwers continue to alternately throw discs to the overload victim, as fast as he can process them.

Do this drill for fifty seconds per player. Then rotate positions. Let every player be overloaded twice.



#### *Points of attention*

- » The throwers should not throw the discs so quickly that the overload victim cannot cope anymore. Instead, they should throw the passes exactly at the pace at which the overload victim can still process all the discs. The closer you are to this border, the more effective this drill is.
- » The throws of the overload victim will, because of quite understandable reasons, not always be very accurate. It might therefore be wise to put the two other throwers next to a wall, if possible. In this case, if the pass is too far off, it at least won't take ages to fetch the disc.
- » For other quite obvious reasons, the two throwers should throw their passes on chest height and not on head height. If you see a thrower throwing multiple discs on head height, ask him to change this.
- » All passes made by the overload victim should still have spin. If players start throwing passes with no spin or only very little, then this drill doesn't work. Tell the overload victim to put spin in his passes, even if this means that the drill proceeds at a slightly lower pace.

#### *Advanced extensions*

- » To challenge the reaction speed of the players, you can increase the angle between the throwers to 90 degrees or even 180 degrees. By doing this, players don't see the discs coming from the corner of their eyes



anymore. It means that they only briefly glimpse a disc and immediately have to catch it.

- » In this drill, the overloaded player will often only throw backhand passes because the grip is easier. This isn't necessarily bad. However, if you want to also practise quick forehand throws, then you can add the rule that the overloaded player may only throw forehand passes.
- » If the number of players is not divisible by three, then you can also make groups of four, where there are three throwers per overload victim. This can be nice for inexperienced players that often misthrow discs, to prevent lots of waiting, but it can also be a nice way to challenge very experienced players that can use both hands simultaneously to catch and throw discs.
- » For players that are very good at this drill, you can instruct throwers to intentionally throw bad passes. Think of passes near shin level, passes above head level or passes that are off to the side by a meter or so.

### 23.3. Heads-on give and go drill

#### Theory

Quick disc processing skills aren't only important for handlers. They're also important for cutters. When you get the disc on an in-cut, you want to dump the disc back to a handler right away. This needs to be done quickly though. Having quick disc processing skills helps a lot here.

#### Drill set-up

This drill is similar to the heads-on drill (15.1). Make groups of 6 to 11 players. For every group, set out two cones, roughly 20 meters apart. Divide players over the cones. We only need one disc per group.

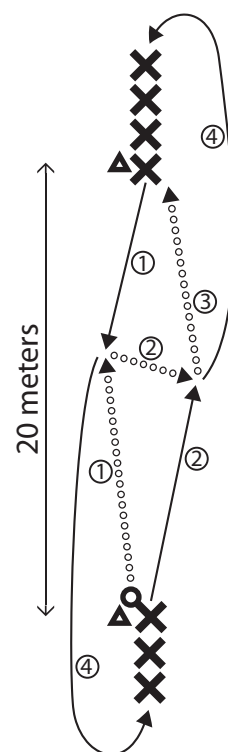
A player from one line runs forward (run 1). He receives the disc from the other line (pass 1). The thrower then immediately runs after his pass (run 2) to get the disc back (pass 2). Once he does, he passes the disc forward (pass 3). Afterward, both players join the opposite line (run 4).

#### Points of attention

- » If you have an odd number of players at both cones, then the same players will always be throwers and the same players will always be runners. So, if you do have a group of 6 or 10 players, divide players among cones in a 2/4 or 4/6 distribution.
- » The dump pass (pass 2) should be a pass that flies on a more or less constant height. If the pass varies height too much, it will be hard to catch. This especially holds if you want to catch it with a rim catch, allowing you to quickly pass the disc on.
- » If the thrower is too early with his cut (run 2), then he would have to receive the dump pass (pass 2) in his back, which is very hard to catch. That's why you would want the dump pass to either be a backward pass or a horizontal pass. To make sure that this is possible, the thrower should throw his first pass (pass 1) early. Furthermore, he can also run more to the side (with run 2) to give the runner more time to make his dump pass.

#### Advanced extensions

- » You can add a marker to the thrower, just like in drill 15.4, whose job is to make the dump pass as hard as possible. As to rotation: the thrower immediately becomes the new marker. The marker joins the opposite line.
- » After the thrower receives the dump pass, he's in a so-called *power position*. That is, his marker is still behind him. This is an ideal situation to throw deep. To practise this, you can add a deep throw to the drill. To do this, you need two additional lines of deep runners - one on either side.



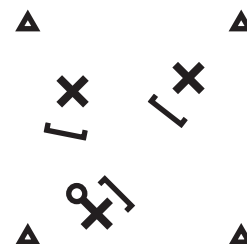
## 23.4. Five pass game

### *Theory*

A great way to practise quick passes and quick disc processing is through the five pass game.

### *Drill set-up*

Set up a square of 10 by 10 meters. This square is the field. Make teams of three players each. The idea is pretty simple: if a team makes five successful passes in a row, it wins. The winning team stays. The losing team is substituted by a new team. This new team gets to start off the next point. The stall count is 5.



### *Points of attention*

- » Encourage players to think of a good team strategy. A nice strategy for defense is to force toward a certain corner and to trap the opponent there. A nice strategy for offense is to set up a vertical stack across the square and to make thrower-initiated passes into open space.
- » Some players, when catching the disc, first look at how the rest of their team is positioned. By doing so, they allow the marker to catch up and get balanced. Preferably, upon catching a disc, a player should immediately make a fake, keeping the marker off-balance. If the fake actually turns out to be a good option, the player can of course also release his “fake,” turning it into an actual throw.

### *Advanced extensions*

- » If this drill goes well and the offense becomes more fluent, you can make things harder by either increasing the number of passes required for a score or by reducing the stall count.
- » This drill is also very nice to do with beginning players. However, since beginners don't have very secure throws, the defense is at a significant advantage. To compensate, you can add a “wild player” to the game. This player is always on offense. So the offense always plays 4 versus 3. Furthermore, to encourage beginners to play patiently, you might want to use a higher stall count, like 8 or 10, or play without a stall count.
- » In another fun variation of this game, you make the square a bit bigger, put four players on each team, and subsequently give both teams a disc. Players are now on offense and on defense simultaneously! Any pass is one point. Any turnover is minus ten. (On a turnover, the disc is immediately returned to the team the disc belongs to.) Your score cannot drop below zero. The first team to reach thirty points wins.

### **Training recap**

Having good disc processing skills can be very powerful in an Ultimate match. By quickly catching, processing and throwing a disc, you can make your game much more dynamic, making it very hard for the defense to keep up.

## 24. Isolation play

Some of the more experienced teams occasionally set up an Isolation play in indoor Ultimate. To stand a chance against this, players need to know how to counter it. And if we learn how to counter it, we might as well learn how to play it too.

### *Prior knowledge*

Little prior knowledge is required for this training. Knowledge of the knife/hammer throws (drill 10.1) is recommended. It's also recommended to have done the one on one drill (10.2) at least once.

### 24.1. The scoober throw

#### *Theory*

Imagine you have the disc in a forehand grip and suddenly you want to throw a quick backhand pass. Of course you could change grips, but if that is too slow, you can also use the *scoober* pass.

To throw a scoober pass, you use a forehand grip. However, you step out as if to throw a backhand. You then launch the disc forward with an upside down orientation. It is important that you push the disc forward with your middle finger. This gives it the necessary spin. You should also pay attention that the bottom of your wrist is facing forward during the throw.

#### *Drill set-up*

This is a basic throwing drill. Put players roughly ten meters apart.

#### *Points of attention*

- » The first thing which players should work on is putting spin in their throw. This is done by pushing the disc off with the middle finger. Also the proper wrist motion is important. The bottom of the wrist should point forward. Give players feedback on this wherever possible.
- » After the throws have enough spin, players should experiment with different kinds of scoober throws. Because the scoober throw is an upside-down pass, it rotates during its flight. Players can throw a flat scoober which, by the time it arrives, has rotated enough to quickly fall down. Alternatively, players can throw a non-flat scoober (slightly more like a hammer) that will arrive flat. Either throw can be useful.

#### *Advanced extensions*

- » You can challenge players that are doing well in various ways. You can stand in the middle between the thrower and the receiver - pretending to be some kind of zone cup player - and tell the thrower to throw the scoober pass over you such that you cannot reach it. Alternatively, you can pretend to defend the receiver, as if you're already playing the one on one drill (24.3) that we'll do later in this training. This encourages players to practise the scoober as if they were in a real game situation.

### 24.2. The push pass

#### *Theory*

We just saw the scoober throw, in which we threw a disc with a forehand grip like a backhand. Now imagine you have the disc in a backhand grip, but want to throw it on the forehand side. In that case, you can use the push pass.

The push pass consists of two phases. First, you need to put spin in the disc. Imagine you are throwing up a disc right in front of you, with as much spin as possible, as if you're going to do some freestyle. That's the

motion you need for your push pass. A lot of wrist motion.

But having a spinning disc right in front of you isn't so useful yet. It needs to go forward. For that, you put your index finger along the rim of the disc. Right after spinning the disc up, you use this index finger to push the disc forward. That's why they call it a push pass. The push makes it fly forward.

There's one final thing you need to know about the push pass. It is very hard to throw it in a stable way, and even then it's still hard to catch. That's why you should actually never use it in a serious match, unless you really know what you're doing.

### ***Drill set-up***

This is again a basic throwing drill. However, due to the limited range of the push pass, players should be a bit closer together now. A distance of six meters is appropriate for the not-so-experienced players.

### ***Points of attention***

- » Some players just try to push the disc forward without any spin. It's important that they spin up the disc first with the right wrist motion. If players don't have this motion, ask them to spin up the disc as much as possible, without worrying about it going forward. Through this, they practise the right wrist snap.
- » Other players have trouble getting the disc forward. You can advise these players to, during the throwing motion, already start pushing the disc forward. After this forward motion, they then only have to release the disc. They can then use their index finger to put some extra forward velocity into the disc.

### ***Advanced extensions***

- » You can challenge the players that are doing this well in various ways. First of all, players should get consistent throws that aren't wobbly. If they have this, you can ask them to throw the disc as far to the forehand side as possible, as if there's a marker that might block their throw. If they're doing this well too, challenge them to extend their range. How far can they throw a push pass like this?

## **24.3. One on one**

### ***Theory***

Imagine each team only has two players. We have one handler with a marker, and upfield there is one cutter with a defender. The goal of the handler is to get the disc to the cutter.

What's the best way to do this? In theory, the cutter can start running to get open. However, this costs quite some time and might result in miscommunications between the cutter and the handler. That's why we're going to try something else. The cutter is simply standing still. He only runs *after* the handler throws the disc. Of course the cutter can move around a little bit to position himself properly, but he should always be balanced, ready to instantly burst off in any direction to catch a disc.

It's now up to the handler to throw the disc into a space where the cutter can get to first. Usually, this is the break side, but this of course depends on how the defender positions himself.

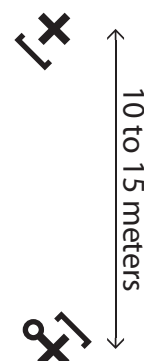
### ***Drill set-up***

We have a handler with a marker. Ten to fifteen meters away, there is a cutter with a defender. The handler should pass the disc to the cutter. However, the cutter may not run before the handler has thrown the disc.

As to rotation: the two offensive players do six throws - three each. After these six throws, offense and defense switch.

### ***Points of attention***

- » It will often occur that the cutter is waiting for the throw with his legs straight. If he then



needs to run, he first needs to get his center of mass low, and only then can he run off. If you see this, advise the player to always be low, with his knees bent. In this way can he run off much faster.

- » The thrower should throw the disc into a space which the cutter can reach first. For an inexperienced player this “throwing into space” will be a relatively new concept. It requires him to really pay attention to where the defender is standing. If the defender is behind the cutter, he should throw a short pass. If the defender is in front of the cutter, he should throw a long pass. If the defender is on the open side, he should throw a break pass to the closed side. Whenever you see a thrower that does not throw passes according to this plan, feel free to give feedback on where he should try to throw the pass.

### Advanced extensions

- » If players do really well at this, let them experiment. The defender of the cutter can try out different positions, the thrower can try different throws, and so on.
- » You can also challenge players to see who gets the most completed passes. In this Isolation play, at least 80% of the passes need to arrive at their intended target.

## 24.4. The Isolation play

### Theory

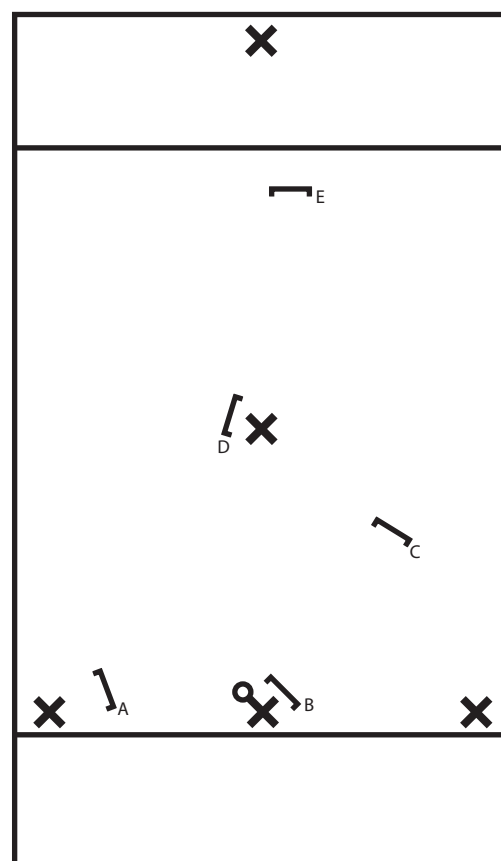
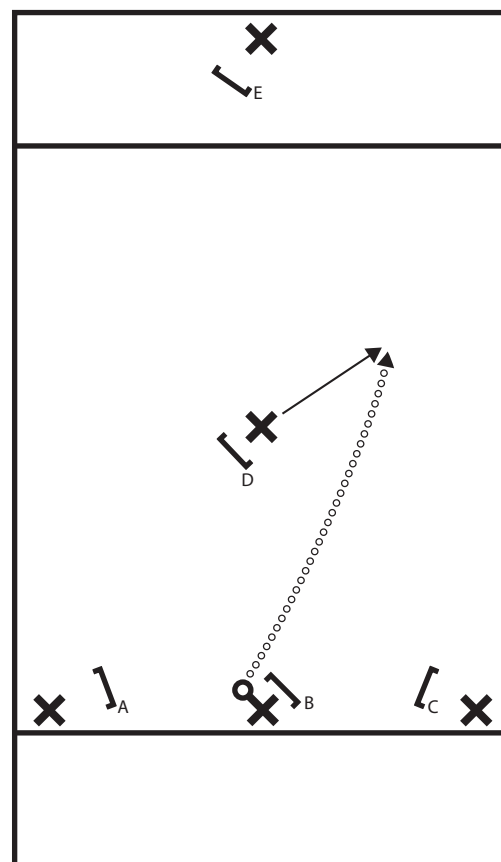
In the previous drill we’ve seen that, with an appropriate throw, we can always get the disc to an isolated offensive player. The idea behind the *Isolation play* is to actually isolate a player in the field. That is, we have three handlers and one isolated player in the middle. (See the first figure on the right.) To create space, the last offensive player is all the way in the back of the field.

At the start of the play, if the thrower thinks he can get the disc to the isolated player, then he can throw the disc. If he can’t, because he for example has a very strong marker, then the handlers can play the disc among each other, until they can put it out into space for the isolated player to fetch.

It sounds pretty unstoppable, right? And indeed, this one on one situation is very hard to stop. To do so, we need to prevent it from being a one on one situation in the first place. That is, the other defenders need to help out.

Now which defenders can help out? First of all, there’s the deep defender (E). He can inch a bit closer, although he should still prevent a direct pass into the endzone. But there’s also the defender on the closed side (defender C). He is currently the least useful defender, so he should fall back a bit too. In this way, the three defenders can together shut down the space around the isolated offensive player.

This works pretty well, until the disc is thrown to the closed side. Now defender C needs to set up the mark. In this case, the least useful defender is the far-side defender (A). This time he should fall back a bit. The middle defender (D) should adjust his position accordingly.



### ***Drill set-up***

We'll practise this drill in groups of eight. That is, we remove the deep players (E). This also allows you to set up the drill twice in one hall.

At the start of the drill, all players set up. The handlers then try to get the disc to the isolated player. This can be directly with a single pass, but if they consider this unsafe, they can also pass around the disc first.

The focus of this drill is on defense. All the time, there should be an extra defender (A or C) helping out the middle defender (D).

After the disc is thrown to the isolated offensive player, the drill stops. Pairs then rotate clockwise. That is, pair D goes to C, C goes to B, B goes to A and A goes to D. When everyone has had every position, offense and defense switch.

### ***Points of attention***

- » Initially, players find the defense a bit confusing. Who should fall back? And more specifically, where should this player fall back to? Coach players in this. Tell them from the sideline, "Player C, fall back!" "A bit more." "A bit to the right." "You're good." And so on.
- » For the offense, keep in mind the points of attention of the previous drill. That is, the isolated offensive player should be low and on his toes. The thrower should throw the disc into the space which the cutter can reach before any of the defenders can.

### ***Advanced extensions***

- » You can challenge teams to see who gets the disc most often to the isolated player. In this Isolation play, the offense should get the disc safely to the isolated player at least 80% of the times.
- » You can start a discussion with the team on the ideal position of the middle defender. What does it depend on? If he's defending a very good and tall receiver who will always catch the disc, where should he stand? (Preferably behind him, such that the receiver only gains five to ten meters.) Or what if the team is playing against a team that isn't very good at break throws? (In this case, the middle defender should use his body to shut down the open side, but be close enough to also have a bid on the closed side.)
- » Make this drill more game-like by playing an actual game with an Isolation play.

### **Training recap**

The *scoober* throw is useful if you quickly want to throw a disc on the back-hand side with a forehand grip. It's especially useful for break throws, or for throwing discs over a cup.

The *push pass* can be useful if you quickly want to throw a disc on the fore-hand side with a backhand grip. To throw it, you need to put spin in the disc and then push it forward with your index finger. However, because it's very hard to get the push pass stable, it is not recommended to use this in a game.

In an *Isolation play*, the offense isolates one of their players in the middle of the field. This cutter is stationary and waits for the handlers to throw the disc. The handlers try to pass the disc into space such that the cutter can reach it before his defender can.

To prevent this very powerful one on one situation, the middle defender needs to be helped out by his teammates. On one side, the deep defender can inch a bit closer. On the other side, either the closed side defender or the far side defender can fall back to support the middle defender.





should continue. If there isn't, the runner should suddenly turn around.

- » Another great move for the runner is the *jab step*. This is a very quick fake, mainly with the shoulders and hips, in which you try to let the offense believe for a very brief moment that you'll be going one way, while in reality you'll be going the other way. In fact, making long cuts and jab steps are the only two things which the runner should do. If the runner is doing anything else, he's being rather ineffective.

### **Advanced extensions**

- » In this training, we use this drill for dump training. In a dump training, cuts are short and a two meter lead is sufficient. For cutters, cuts can be longer and a three meter lead is often more beneficial. So if you want to use this drill for cutter training, you can increase all distances in this drill by 50%.
- » To make this drill more game-like, you can get rid of the constraint that players are on either side of the line. If you do, then defenders can also try to use their body to force runners to run in a certain direction.

## **25.2. Line cutting drill with thrower**

### **Drill set-up**

It's time to add a thrower. We're going to add the thrower 10 meters next to the line. (See the figure.) The thrower also has a marker. This marker always forces straight away from the line. We also remove the outer cones. The idea now is that, when the runner leaves the (inner) region, the thrower throws him a lead-in pass. It's then the defender's task to prevent the runner from catching it.

As to rotation: the thrower and marker become the new runner and defender.

### **Theory**

Without knowing it, players have actually been practising the dump pass to the closed side. Just rotate the whole playing field by roughly sixty degrees and you get exactly the dump procedure for the closed side.

### **Points of attention**

- » This drill is essentially the same as the previous drill (25.1). The same points of attention therefore hold.
- » Because this drill is essentially the same as the previous one, players should mostly act in the same way as previously. If a player suddenly starts doing things differently, ask him why he does that.

### **Advanced extensions**

- » Again, you can get rid of the constraint that players need to be on either side of the line.
- » If things go well, you can make it more game-like by continuing with the next drill (25.3).

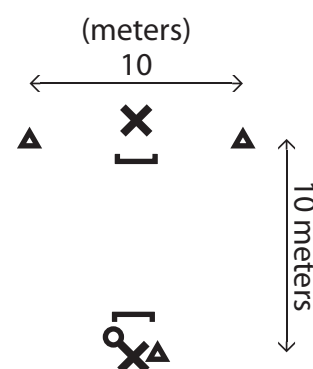
## **25.3. Dumping to the closed side**

### **Theory**

It's time to start pretending like we're in an actual Ultimate match. Imagine that a thrower is trapped on the sideline. He needs to get the disc to his dump. If the dump is open, he can throw it right away. If not, the dump needs to cut to get open. That's what we're going to practise now.

### **Drill set-up**

The drill is exactly the same as the previous drill, except we rotate everything sixty degrees and we get rid of the cones. The dump starts wherever he wants to. The thrower first makes a fake forward. Then the tries to dump the disc. This can either be a direct throw to the dump, or a fake to the dump which is the signal that

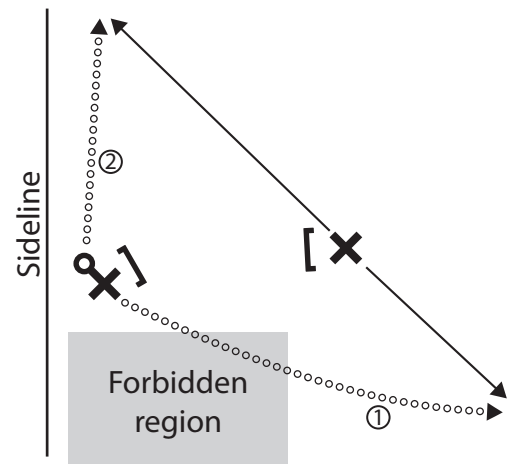


the dump should start running.

The rotation is the same as previously. The thrower and marker become the new dump and dump defender.

### Points of attention

- » Many dump players will be tempted to run into what is called the *forbidden region*. This is the region behind the thrower. (See the figure on the right.) Running to the forbidden region is a bad habit and should most certainly be discouraged. Getting the disc there doesn't solve anything. There's no threat at all and you're still stuck on the sideline. It should only be used as a last resort, to reset the stall count. In any other case, you want to get the disc off the line. The further, the better.
- » There will also be many players that start to make all sorts of short cuts again. Remember that a runner basically only has two options: (1) jab steps and (2) long cuts that make the defender take longer strides. There are no other options.
- » The idea behind the dump procedure is not only to get the disc off the sideline. A good dump pass creates new threats too. Option 1 in the figure gives as threat either a swing or a break pass. Option 2 gives as threat a deep huck. You can tell players about these threats and encourage them to actually fake them too.



### Advanced extensions

- » You can start a discussion with your players on what the ideal initial position of the dump is. Is it on a horizontal line with the dump? A bit in front of it? Or behind it? In reality, this depends on how the marker sets up. With most markers, the ideal dump position is a bit (about 2 meters) in front of the horizontal line. If you then go for option 1 (see the figure above) you don't lose so much distance. However, if the marker rotates and forces straight toward the line, the ideal dump position also shifts backward a bit.
- » A really good defender might be able to shut down both the run forward and the subsequent run backward. In this case, you need to add a "run-up" to your dump procedure. You start a bit further away from the thrower. Now, before you start the normal dump procedure, you first run four or five steps toward the thrower. This causes your defender to backpedal. After this, you execute the dump procedure as usual. The backpedalling has put your defender off-balance, which makes it more likely that you get the disc.
- » To make this drill just a bit more game-like, you can start from a dynamic situation. For example, you can first let the player in the middle of the field pass the disc to the player on the sideline and then start the original drill from there.

## 25.4. Dumping to the open side

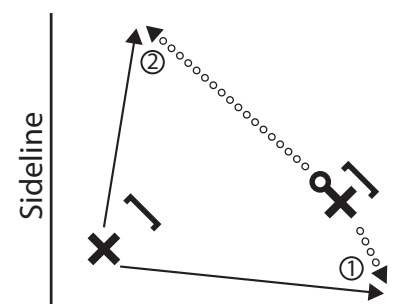
### Theory

We've seen that, to get the disc, you always need two threats. We've seen where the two threats are for a dump on the closed side. But where are the two threats for a dump on the open side?

One threat is a floaty pass backward, behind the thrower. This creates the possibility of a break pass. (See option 1 in the figure.) The other threat is a pass forward (option 2) creating the possibility of a deep huck.

### Drill set-up

We set up one thrower with a marker and one dump with a defender on the open side. It's the job of the dump to get the disc in such a way that he creates a new threat.



The rotation is still the same. The thrower and marker become the new dump and dump defender.

### ***Points of attention***

- » Dump players are often still tempted to receive the disc in the forbidden region. This should be strongly discouraged. In fact, you should never throw the disc to the trap sideline without at least a plan of getting out of there. (This “plan” could be a quick up-line cut of the thrower. Then such a pass could be OK.) Instead, the dump should run to get the disc behind the dump.

An exception to this occurs when the disc is already on the closed (non-trap) sideline. In this case, there is no forbidden region. In fact, a dump to the middle of the field isn’t necessarily bad.

- » Many dump players initially position themselves too far upfield. That is, they don’t position themselves on a horizontal line with the thrower. They position themselves in front of it. As a result, the upfield pass (option 2 in the figure on the previous page) is prevented by the marker and only one threat is left. Furthermore, having a dump so far upfield also allows the dump defender to poach, which is undesirable.

The solution here is that the dump positions himself not just on a horizontal line with the thrower, but about two meters behind it. This doesn’t only make the upfield pass (option 2) easier, but also the pass behind the dump (option 1), because the dump now doesn’t have to run around the thrower anymore.

- » Dump defenders usually try to shut down the upfield pass (option 2) first. Dumps should therefore generally first try to go for the backward pass (option 1). If the defender goes all-in to follow, then the dump can turn around to go for the upfield pass.
- » The pass backward (pass 1) is a short pass. This makes it hard to catch. As such, it should always be a backhand pass. Furthermore, since you preferably want to catch the disc with a two-handed thumbs-up rim catch (allowing for a quick throw afterward), it should be a steady level pass on chest height.

### ***Advanced extensions***

- » Players often find it difficult to quickly see where the spaces (threats) are. To practise this, you can let the marker decide last-minute what force he applies. The dump then has (roughly) two seconds to position himself appropriately, after which he should make the right cut. (This is actually done in drill 26.2.)
- » You can combine this training’s last two drills into a handler play drill. In this drill, you have three handlers and three defenders. Every few seconds the handlers make a dump pass and subsequently reposition themselves. This continues for ten passes or so, after which offense and defense switch. As the drill progresses, passes should follow each other up in a higher and higher pace. (This is drill 26.3.)

### **Training recap**

Whenever you’re trying to get rid of your defender in an Ultimate match, you always need to have two threats. This general idea applies to all parts of an Ultimate match. If you’re not getting open as an offensive player, ask yourself, “Which two threats do I have?” Or when you’re defending someone, ask yourself, “Which two threats does he have? And which one am I shutting down?”

This two-threat philosophy especially applies to dump passes. When you’re a dump on the closed side, your threats are the horizontal pass across the field and the pass upfield. When you’re a dump on the open side, your threats are the short dump pass backward and the pass upfield.

In either of these situations, dump passes don’t just reset the stall count. They also create valuable opportunities, like potential break passes and deep hucks.

## 26. Outdoor dump and endzone play recap

This is the first outdoor training. When transitioning to the outdoor season, it's important to let players get used to typical outdoor tricks, like keeping the field big, applying pancake catches and sticking to a forehand force. This training does exactly that.

### *Prior knowledge*

It is assumed that players know the finer parts of the dump procedure, as treated in training 25. They should preferably also know the basic set-up of the outdoor endzone play, as treated in training 9, although this latter part doesn't take too much time to explain.

### 26.1. Pancake catching

#### *Theory*

Imagine a disc coming in on your left, on chest height. You can probably catch it with just your left hand. However, when it's windy and the disc is going up and down, it's safer to add your right hand for guidance. Now you're basically applying a pancake catch, with your left hand below. Similarly, when the disc is coming in from the right, you could catch it with your right hand, but you'd rather add your left hand for guidance.

Many players always apply the same pancake catch, with the same hand below, but this occasionally causes drops. That's why it's important to practise the pancake catch with either hand below. You'll have less chance of fumbling discs due to uncomfortable arm positions, and the disc is less likely to shoot through because you can put your thumbs behind the disc.

#### *Drill set-up*

This is a basic throwing drill. Set the pairs roughly fifteen meters apart. Let the throwers throw either to the left or to the right of the receiver. The receiver should then apply the right pancake catch.

#### *Points of attention*

- » This drill might take some getting used to. Some players aren't used to applying a certain kind of pancake catch. Encourage players to try anyway.
- » Some players are tempted to move their own body such that the disc always arrives on the "easy side" and they can apply the pancake catch they're familiar with. This of course defeats the purpose of this drill. Tell these players to keep their feet on the ground whenever possible.
- » You can also ask throwers to throw at the side of the receiver which he is the least comfortable with.

#### *Advanced extensions*

- » To test whether applying the right pancake catch has become second nature, you can shorten the throwing distance to 5 meters. By doing this, players have less time to think and should instinctively use the right pancake catch.
- » Another way to further learn to apply pancake catches is through a heads-on drill, like drill 15.1. In this drill, let throwers throw the passes a bit to the left or to the right of the receiver. Encourage the receiver to catch the disc in the right way while running into the disc.

### 26.2. Finding dump spaces

#### *Theory*

Previously (in drills 25.3 and 25.4) we have seen how to dump a disc to the closed side and how to dump it



to the open side. We've also seen how dumps should position themselves in each of these situations. A dump on the closed side should go forward a few meters, while a dump on the open side should go backward a bit. The difficulty here is that, in the heat of a game, you don't always realize right away what side you're on. You also don't realize right away where the spaces are. Luckily the thrower usually looks upfield for three full seconds. That gives you three seconds to set up the right dump and to know where you can get the disc.

### ***Drill set-up***

This drill is done in groups of 6 to 10 players. However, only four of them are active. We have a thrower, a marker, a dump and a dump defender. (See the figure on the right.) At the start of a drill execution, the marker checks in the disc, sets up either a force forehand or force backhand mark and starts "stalling 1, 2, 3, ..."

It's during these three seconds that the dump has to get ready. First of all, he should position himself correctly. Secondly, he should figure out how to make his dump cut such that he can get open. Somewhere between stall count 3 and 4 the dump should run to get the disc from the thrower.

After a drill execution, the thrower becomes the next marker, the marker becomes the next dump defender and the dump defender becomes the next dump. The dump goes off the field to evaluate his performance.

### ***Points of attention***

- » After a dump has gone off the field, you can evaluate things with him. Did he position himself correctly? And did he run in the right direction? What could he have done better?
- » In outdoor Ultimate it's important to keep the field big. Dumps should position themselves at least 10 meters away from the thrower, though preferably a bit more.

### ***Advanced extensions***

- » If this drill goes well, you can continue with the next drill (26.3).
- » Alternatively, you can combine the ideas of drills 26.2 and 26.3. Now, whenever a marker starts stalling, he can choose which side to force to. This forces the dumps to continuously adjust to the new force.

## **26.3. Continuous dump play**

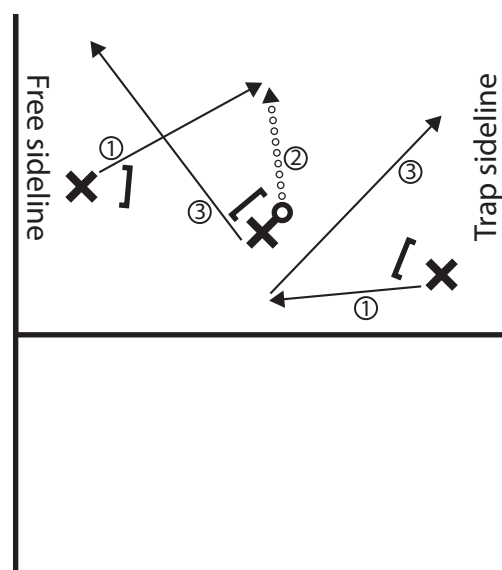
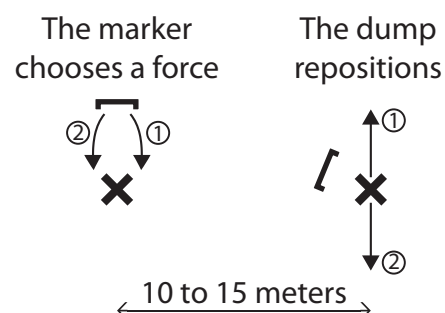
### ***Theory***

In a real match, you often have three handlers instead of two, you have sidelines and the play doesn't stop after a single throw. Those are three elements which we're going to incorporate now.

### ***Drill set-up***

We have three handlers, each with a defender. (See the figure on the right.) There are also sidelines, 37 meters apart. The disc starts in the middle. When the disc is checked in, the thrower looks upfield for three seconds. Then the dumps start running (run 1).

After a dump pass (pass 2), the new thrower looks upfield again for three seconds. In the meantime the new dumps should set up accordingly (run 3). After the three seconds, another dump pass is made. Play continues for five dump passes. Then we get three new defenders, the defense becomes offense and the offense goes off to evaluate.





### Points of attention

- » For the dumping to go well, it's important that the dumps aren't exactly on a horizontal line with the thrower. Instead, the line between the handlers should be rotated by roughly 20 degrees.
- » There are two sidelines. On the *trap sideline* you can get trapped. On the *free sideline* you cannot. The idea of the whole dump set-up is to prevent the disc from even getting to the trap sideline in the first place. Sometimes a thrower does throw the disc to the trap sideline. This should be discouraged. And if it does happen, the original thrower should immediately get busy to get the disc off of the trap sideline again.
- » If the disc is on the free sideline, then the "dump procedure to the open side" isn't so useful. You'd probably never get off the free sideline! In this case it is okay to just throw the disc to the middle of the field.
- » The second main idea of the dump procedure is to create threats. After an upfield dump pass, there's the threat of a deep huck, while after a dump pass sideward/backward there's the threat of a break pass. Encourage players in this drill to fake these threats whenever possible, as if we're in a real game.
- » After every drill execution, evaluate with the offense what went well and what can still be improved.

### Advanced extensions

- » You can give handlers points for every threat they create. Handlers get two points for every good deep huck option and one point for every good break pass option. Similarly, you can give defenders one point for every time the dumps are forced to deviate from normal dump procedures and two points for every turnover. By doing this, you create some extra competitiveness which should encourage players.
- » Now is not really the time to extend this rather important drill. If you nevertheless do want some variation, you can check the advanced extensions of drill 34.3.

## 26.4. Endzone play recap

### Theory

It's time to recap our outdoor endzone play. The main idea behind the endzone play is that we want to have one player in the front of the endzone. If he's all alone, it should be pretty easy to score. The handlers either throw a break pass to him, or they work the disc up into the endzone themselves.

However, next to the three handlers, we also have three other offensive players. Their job is to keep their defenders away from the main play. They do this by going to the back of the endzone. If their defenders do stray, then a quick pass should allow us to score quite easily.

### Drill set-up

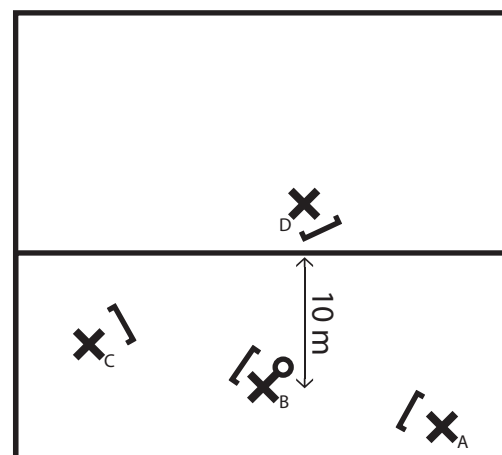
In this drill, we remove the three "useless" offensive players and their defenders. This results in a group size of eight players.

The disc starts in the middle of the field, ten meters away from the endzone. (See the figure on the right.) The offense has the simple task of scoring. The defense should of course prevent it.

Players execute this drill three times in the same set-up. Then they rotate positions. After four rotations, when every offensive player has had every position, offense and defense switch roles.

### Points of attention

- » The offensive runner in the endzone (player D) should remain balanced as much as possible. It also helps if he "cheats" a few meters to the open side. By doing this, he makes the break pass for the thrower (player B) easier and he forces his defender to turn his back on the thrower, making a "split view" a lot harder.
- » The runner (player D) should also keep his eye open for options. Right after a dump pass, it's often possi-



ble for the thrower to break the mark. When the runner sees this, he can start running to receive the pass.

- » Imagine that the handlers are close to the endzone. If a dump (for example player C) makes an upfield cut, then the defender of the runner (defender D) can block the dump pass. If the runner (player D) sees this coming, he can prevent this by running to the open side. If his defender doesn't follow, there's an easy score. If his defender does follow, then the original dump pass (to player C) is again possible.
- » Now imagine that the handlers are far away from the endzone. In this case, throwing a pass to the runner (player D) in the endzone will be hard. It will be a lot easier if the runner moves forward (downfield) a bit. If the runner now gets the disc, there won't be a score right away. However, by doing this trick twice, we do get a score. So, if the handlers are far away, encourage the runner to leave the endzone.

### ***Advanced extensions***

- » To make this drill harder for the offense, you can let the disc start on the trap sideline. Now the offense first needs to get the disc off the line before they can start their actual endzone play.
- » Some throwers have the tendency to look upfield up to stall count 5 or 6 and only then look for the dump. In a real game, dumping so late often causes problems. To teach these players to look for the dump sooner, you can reduce the stall count to 6. (Note that this trick doesn't work in the previous drill (26.3). After all, in that drill there was no "distraction" upfield, so no player would ever look upfield too long.)
- » For teams that are used to playing with each other, you can give the offense the challenge of scoring at least 4 out of every 5 tries. When the level gets higher, you can increase this to at least 9 out of 10.

## **26.5. Setting up the endzone play**

### ***Theory***

Let's say that, through some fancy offensive strategy, you've gotten close to the endzone. Now you need to transition to your endzone play. How does that happen? Who goes where?

This is actually pretty simple. The first three players that reach the endzone run on toward the back. The fourth player stays near the front of the endzone. The remaining three players are the handlers.

### ***Drill set-up***

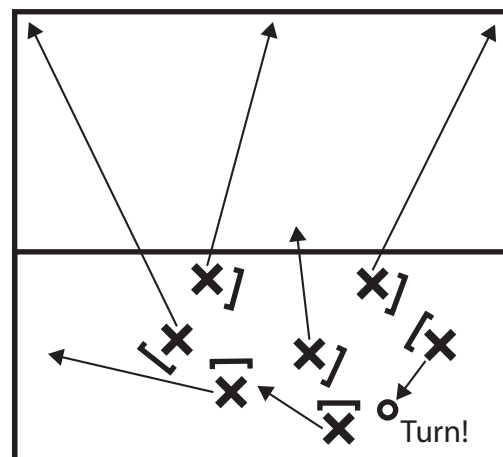
This drill is done in groups of fourteen: two teams of seven. Initially team A is on offense and team B is on defense. Team A lazily jogs around in front of the endzone, throwing silly passes, with team B lazily following behind. Then team A "accidentally" drops the disc. This is when the real drill starts. Team B is on offense!

First of all, team B should call "Turn!" to indicate to their team that they now have the disc. They should then also realize that they're closed to the endzone and call "Endzone!" as the signal to set up the endzone play. As soon as possible do the players fill up all the positions, such that the endzone play can begin.

After the endzone play has finished, the roles are reversed. Now the other team starts to lazily jog around, throwing silly passes.

### ***Points of attention***

- » If you don't have 14 players but only 12, then you can still do this drill. Just remove the middle player on the back line. Now the third person that enters the endzone stays near the front.
- » Players are eager to score. It therefore often happens that the first and second players that reach the endzone stick around near the front, hoping to get the disc. However, they usually don't get it, because there are still too many defenders around. And by sticking around near the front of the endzone, they block all



options! Tell these players that they should really go to the back of the endzone right away.

- » When you're in the back of the endzone, you feel useless. However, you're not. Your job is to keep your defender away from the game. If you do that successfully, you massively help out your team. On the other hand, if you move toward your defender, you're just helping out the defense. In fact, you should only move away from the back of the endzone if you're almost certain you can get the disc and score.
- » In this drill, it often happens that the handlers are quite far away from the endzone. In this case, it is again useful if the runner in the front of the endzone leaves the endzone to get the disc. It won't result in an immediate score, but it does bring the disc forward, closer to the endzone.

### ***Advanced extensions***

- » It's important to finetune your endzone play. All players should know their roles. Do this drill quite a couple of times and give lots of individual feedback to players. The extra effort will reflect in your scores.
- » The best way to finalize the practice of your endzone play is by playing an actual game. Play a game and try to set up the endzone play every time you get close to the endzone.

### **Training recap**

In outdoor Ultimate you use pancake catches whenever you can. If the disc comes in on your left side, you keep your left hand below. If the disc comes in on your right side, you keep your right hand below.

Dumps should not position themselves on a horizontal line with the thrower, but at a twenty degree angle. In this way can they create threats with every dump pass, without ever running the risk of being trapped on the sideline. Also, in outdoor Ultimate, dumps should keep the field as wide as possible.

In an outdoor endzone play, we have three handlers and one runner at the front of the endzone. We either score through a break pass to the runner, or by letting the handlers work up the disc themselves. The remaining three players are at the back of the endzone, keeping their defenders away from the game.

When setting up an endzone play, the first three players to reach the endzone continue running toward the back. The fourth player stays near the front of the endzone. He can run out of the endzone if the handlers are too far away.

## 27. Deep throwing and sprint training

In outdoor Ultimate the distances are a lot bigger than in indoor Ultimate. Being able to quickly run long distances will strongly help you in your game - especially if it gets you some deep passes. In this training we will focus on sprinting techniques as well as deep throwing techniques.

### *Prior knowledge*

This training requires no prior knowledge at all. It does help if players already have decent throwing skills.

### *Extra note*

In this training we'll treat the eight rules of sprinting. There's actually a ninth rule too. We call it "rule 0" and we've actually already treated it (in drill 14.1). Rule 0 says that "You always start sprinting with small steps." You might want to repeat this rule in some way as part of your warming-up.

### 27.1. Long backhand throws

#### *Theory*

It always helps if you have some players in your team that can throw long passes. And you can become one of these players too, if you practise your *hucks* (deep throws) a lot. So let's do that. We'll start with the backhand.

Throwing a long backhand starts with stepping out properly. When stepping out, you point the heel of your non-pivot foot toward your intended receiver. This receiver now is behind you. (You cannot even see him.)

Next, you hold the disc in front of you, with an outstretched arm. Your grip is firm: all four fingers are tight around the rim. (We call this the *power grip*.) Now it's time to throw. You start your throwing motion by rotating your hips. Then your shoulder moves backward. Next, you bend your elbow. In this way does the rotation "flow" through your body. Only at the end do you snap your wrist, giving the throw lots of spin.

It's important that, during the entire throwing motion, the disc goes in a straight line. If done well, the disc closely passes by your belly button. Also, you should release the disc strongly inside. This will help in letting the disc arrive flat. After all, discs rotate from inside to outside during their flight.

#### *Drill set-up*

This is a basic throwing drill. Players should pair up with someone with roughly the same throwing distance. Players stand at a distance at which they can let their backhand throw arrive flat and at head height of the receiver. If this is easy, players can move further apart. If the throws are too far off, players should get closer.

#### *Points of attention*

- » If there's a significant wind, it helps if you can set players up such that the wind comes from the side. (Otherwise only one player will throw at the proper range.) Also don't forget to switch positions halfway through the ordeal, such that players learn to throw with the wind coming from either direction.
- » Some players will try to put as much force into their throw as possible. Such throws don't work and players won't learn much from it either. Ask these players to focus on technique first and on power later.
- » Some players will swing the disc all around them with an outstretched arm. This is contrary to the idea of "letting the disc move in a straight line". To teach players to move the disc in a straight line, you can apply a trick. First let them line up for the throw, with the disc straight in front of them and the intended receiver behind them. Then you should grab hold of the disc and gently pull on it. Let players make the entire throwing motion, while you keep on gently pulling the disc backward. Because of the extra resistance, players will be more tempted to move the disc in a straight line, like they should do when throwing.
- » Players may ask how far they should step out for a good huck. There is no definite rule on this. Some players like to step out a short distance. Others like to step out very far. Let players experiment with this.

- » Good long throws never go very high. That would make them too floaty. Throws should reach a height of at most six meters. Anything above that is useless. (An obvious exception is the pull.)

### ***Advanced extensions***

- » Imagine you just caught a disc. You want to throw a forehand huck and wind up for the throw, but your marker wildly jumps in front of it. This leaves the backhand huck wide open. Being able to fake a forehand huck like this and then throw a proper backhand huck is a useful skill to have. So tell players to first make a convincing forehand huck fake and then throw a backhand huck.
- » Another useful skill is the ability to make a long backhand throw while there's a marker on you. So why not add a marker to the drill? The marker shouldn't apply a lot of pressure. He should apply just enough to make the throw a little bit difficult. An important lesson to learn here is that players can throw a lot less far when there's a marker on them.

## **27.2. Long forehand throws**

### ***Theory***

After the backhand huck, we'll continue practising the forehand huck. When throwing a long forehand throw, it's important to throw the disc strongly inside. To do so, it helps if you tilt sideward 45 to 60 degrees, such that the line between your shoulders points to the ground.

When throwing the disc, first your hips start rotating. Then your shoulder moves forward, followed by the elbow and at the end the wrist. In this way does the rotation again flow through your body.

### ***Drill set-up***

The drill set-up is the same as in the previous drill (28.2) but now we will throw forehand throws.

### ***Points of attention***

- » When players want to throw a forehand huck, they often try to do so with pure strength. This will not work. The throw will turn into an outside throw that crashes into the ground far from its intended target. It's important to tell these players to keep focusing on their technique. First technique, then power.
- » It's very important for long forehand throws to be released strongly inside. When the throws of a player keep arriving outside, ask him to throw even more inside. His shoulders should point strongly downward. To quickly get used to this, you can even ask him to exaggerate and let his throws arrive inside.
- » When a player has a good long forehand throw, you can ask him to make the "stepping out" motion part of his throwing motion. So first the player should step out diagonally forward. During that stepping-out motion, he should already start moving his hip, followed by his shoulder, elbow and finally his wrist. By adding this extra step to his throwing motion, he can get even more power and spin to put into his throw.

### ***Advanced extensions***

- » The advanced extensions are the same as for the previous drill (27.2). Players can fake a backhand huck before throwing a forehand huck and players can practise their long forehand throws while being marked.

## **27.3. Sprint technique training**

### ***Theory***

Previously, we've talked a lot about running technique: staying low, taking small steps and so on. That's useful if you quickly need to react and change directions. If all you want is to get to the other side of the field as quickly as possible, then things are different. Then you just need to run at full speed.

To increase your top speed, you should focus on two things: strength/endurance and technique. The first is



the result of physical training and we won't go into depth on that here. Instead, we'll focus on the second.

We're going to discuss 8 rules which you should keep in mind when sprinting. Get these 8 rules engrained in your system and you'll be a faster runner than you were before, even if you don't do any strength training.

### ***Drill set-up***

Set up two lines roughly 50-60 meters apart. During every trial, players should sprint from one line to the other. While doing so, they should focus on one particular aspect of their sprinting technique. It's not important to go as fast as possible. It's important that players try to incorporate every rule into their system.

### ***Rules of sprinting***

1. *Lift your knees as high as possible.* To run as fast as possible, it helps if you take big strides. The first part in achieving this is by lifting your knees as high as possible preceding every step.
2. *Kick out your legs.* After lifting the knee, the second part in taking longer strides is to kick out the bottom half of your leg. By doing this, you maximize your stride distance. It also enables your foot to already be moving quickly backward before hitting the ground. This allows you to push off harder from the ground.
3. *Lean forward as much as possible.* If all you do is lift your knee and kick out your leg, then you will plant your heel into the ground and come to a sudden stop. That's not good. To fix this, it helps if you lean forward as much as possible. This will also encourage you to make bigger strides.
4. *Pull in a "rope" with your arms.* When running at high speeds, using your arms effectively is very important. First of all, during every swing, your arm should go forward as much as possible. It's kind of like you're trying to pull in a rope. You stretch out your arm to grab hold of the rope and then you move your arm backward in a straight line, pulling in the rope.
5. *Throw back a "bag of sand".* It's also important for your arms to go backward as much as possible. To accomplish this, it helps if you envision that you have a bag of sand in your hand. You then try to throw this (imaginary) bag of sand as far backward as possible. This gives you the proper backward arm motion.
6. *Relax your shoulders and jaw.* When running, most parts of your body are active. The parts that aren't active are your (upper) shoulders and your jaw. By relaxing them as much as possible, you prevent wasting energy. (Yes, if you relax your jaw during running, it'll bounce all over the place. But looking silly is fun.)
7. *Push the ground away backward, not downward.* Many players, while running, go up and down a lot. This is also a waste of energy. The more you move horizontally instead of vertically, the more efficient you run. So when running, don't push the ground downward. Push it away backward. It'll make you go forward.
8. *Focus on the horizon.* Where do you look at when running? If you look downward, you'll slow down. If you look backward/sideward at the disc, you'll run in a curve. The best thing you can do is to look straight forward to the horizon as much as possible. By looking forward, you'll run forward.

### ***Points of attention***

- » When players do these drills for the first time, they'll look silly. This is good. In fact, the sillier, the better, because that's how players try out and learn new stuff. Try to make players feel comfortable with acting silly, for example by creating a fun atmosphere and by taking the lead in acting silly yourself.
- » With this drill, it's nearly impossible to give individual feedback to players. As long as the group is trying out new stuff, things are okay. If you want to focus on an individual's running technique, you should be ready to spend quite some time with this player and see at which points the most gain can be obtained.

### ***Advanced extensions***

- » To get the running technique engrained in your system, you need to practise it a lot. An easy way to do so is to focus on it during every pull. When a pull is released in an Ultimate match, run across the field as fast as possible, while focusing on your sprinting technique. This helps you improve slowly but steadily.
- » If you want to improve faster, then you'll regularly have to go the track to work on this.



- » After getting these 8 points in your system, you should also make sure to have them in your system when you're tired. Sprint for 200 meters while focusing on your technique, take a 30 second break, and repeat this for 10 times or so. Try to slowly but steadily increase the length of your workouts.

## 27.4. Deep running drill

### Theory

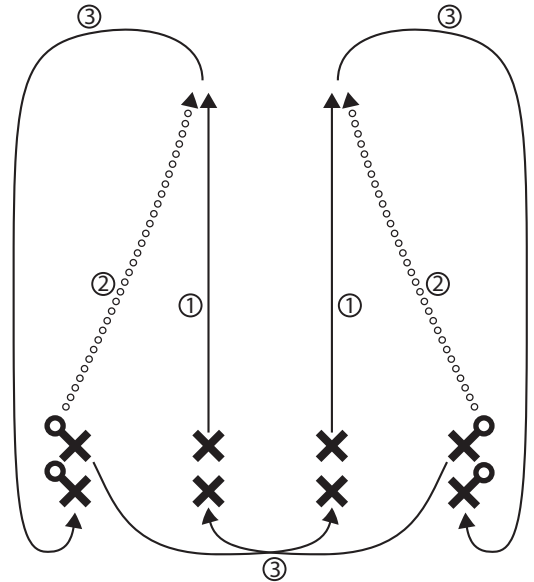
Just being able to run fast won't make you a good cutter. While running, you need to be able to figure out where the disc will land, as well as catch it, without losing speed. We'll practise doing that now.

### Drill set-up

For this drill, we divide players over four lines. The players in the outer two lines have discs. (See the figure on the right.)

At the start of the drill, the front players from the middle two lines sprint forward (run 1). At the right time, the front players from the outer two lines each throw a disc at them (pass 2). The left line throws backhands while the right line throws forehands. (For left-handed throwers this is of course the opposite.)

As to rotation: after a runner caught the disc, he goes to the line where his disc came from (run 3). After a thrower threw a long pass, he goes to the opposite line of runners (the other run 3). The next player can start running already before the previous runner actually caught his disc.



### Points of attention

- » Many beginning players will try to put so much power into their throw, that the throw goes awry. This defeats the purpose of this drill. Tell these players that throwing far isn't important. It's only important that the pass is stable and can be caught. If the throw isn't far, it simply means it has to be thrown early.
- » When running, many runners look behind them at the thrower. This also isn't good. By looking backward, the runner slows down. A good deep runner never looks at the thrower. Instead, he only looks sideward to where the disc passes him by. He does so only briefly. Based on that, he estimates where he will be able to catch the disc, adjusts his course and runs at full speed to that place to catch it.
- » If a disc is too floaty and a runner arrives too early, he shouldn't wait for the disc to fall into his hands. Instead, he should try to get the disc as high (as early) as possible. Encourage players to jump for discs.
- » This drill is also a good drill for practising deep passes. Keep in mind the points of drills 27.1 and 27.2.

### Advanced extensions

- » You can give runners the option to go for an in-cut instead of a deep run. To do so, they should turn around after 20-25 meters of running and come back in for the disc. This trains the runner to make good cuts and to run into the disc, while it teaches the thrower to time his throw properly.
- » If you think it's time to add defenders, continue with drill 27.5.

## 27.5. Deep running with a defender

### Theory

When running deep, there's usually a defender trailing you. For the runner, the task is to catch the disc. How can he maximize the chances for that? The task of the defender, on the other hand, is to prevent the runner

from catching the disc. How can he best do that?

It all depends on the timing. If you're exactly on time, catching the disc is easy. But what if you're early and the disc still needs some time to come down? In that case you should use your body in a smart way. By placing your body in-between your opponent and the place where the disc will come down, you prevent your opponent from reaching the disc. Then, when the time is right, you can still easily catch it.

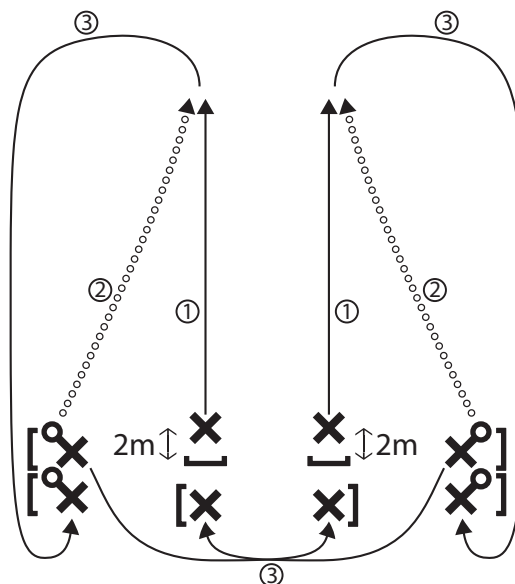
Note that you may not use your arms to hold off your opponent. Using your body is allowed, as long as you don't cause any contact and you still make a play for the disc.

### ***Drill set-up***

To practise this, we're going to add a defender to the previous drill (27.4). The offensive runner gets a head start of 2 meters. He also gets the initiative. That is, the defender may only start to run when the offensive runner starts to run.

This drill is about positioning. To enforce that, and to make sure that players practise their positioning skills, jumping is not allowed in this drill for any player. You can only beat your opponent through clever positioning.

The rotation for this drill is the same as in the previous drill, but now it's done in pairs. After a pair has gone through the whole cycle, it switches offense and defense.



### ***Points of attention***

- » For this drill, it's helpful if the long throws are floaty and late. After all, that's when the players get to practise their positioning skills. You may want to instruct the throwers to throw such throws.
- » If you mainly want to focus on the positioning, and training deep throws isn't so important, you can select a few experienced players to do the long throws and let the rest of the players stick with the running.
- » Some players are tempted to use their arms to keep their opponent away from the disc. If you see players do this (or make fouls in other ways), then give them feedback on what they're doing.

### ***Advanced extensions***

- » Sometimes it happens in a match that a deep runner is being trailed by two defenders. In this case, the two defenders should apply a sandwich style of defense: they should position themselves such that the offensive player is exactly between them. This minimizes the chance that the offensive player can get the disc. To train this, you can do this drill in groups of three, with two defenders per group. In this case, the offense is allowed to jump, but the defense isn't. The two defenders have to use positioning instead.
- » You can also train disc reading skills with this drill. In this case, you should instruct throwers not to throw flat passes but to throw outside (or even inside) deep passes. Furthermore, jumping is allowed in this extension. In fact, it's encouraged. (Actually, this is drill 37.2.)

### **Training recap**

When throwing a long pass, it's important to throw the disc strongly inside. The throwing motion starts with your hips, followed by your shoulders, your elbow and finally your wrist. During the entire motion, the disc should move in a straight line. With a backhand throw, you apply a *power grip*: four fingers tight around the rim. With a forehand throw, the line between your shoulders points to the ground. Long throws should never go higher than 6 meters.

When running at full speed, technique is important. There are 8 rules of sprinting. Lift your knees as high as possible, kick out your legs, lean forward as much as possible, pull in a “rope” with your arms, throw back a “bag of sand”, relax your shoulders and jaw, push the ground away backward and focus on the horizon. Also remember rule zero: start sprinting with small steps.

When running deep, it’s important not to look at the disc too much. Look at the disc just once and adjust your course to where you know the disc will land.

When a long throw stays up in the air too long, you should put your body in-between your opponent and the place where the disc will come down. This will prevent your opponent from reaching the disc, giving you an easy catch.

## 28. Switch defense basics

When defenders have field sense - they know what's going on around them - they can adjust their plan in many fancy ways to whatever the offense is doing. One of these fancy ways is the switch.

### *Prior knowledge*

No specific prior knowledge is required. However, this training does require quite some insights into the game of Ultimate, so it won't be a training suitable for players with little game sense.

### 28.1. Break the mark

The break the mark drill is familiar by now. Nevertheless, it's important to do this drill regularly. That's why we're doing it again here. See drills 8.1, 8.2 and 12.1 for details.

### 28.2. One on one cutting

#### *Theory*



Previously, in drill 25.1, we saw that a good cutter always has two threats. In that training, we applied the situation to a dump pass. Now we will apply it to an upfield cutter.

#### *Drill set-up*

This drill is done in groups of six to ten players. Only four of them are active. We have one thrower with a marker and one runner with a defender. (See the figure on the right.) The marker sets up a force to one side. The runner should now run to get the disc. He can either get it in or deep.



The offense wins if they get the disc upfield by at least 8 meters. The defense wins if there's a drop, a stall-out or if the offensive runner gets the disc very close to the thrower. The stall count is six.

The rotation is in pairs. The thrower and marker become the next runner and defender. The runner and defender clear the field to evaluate.

#### *Points of attention*

- » The strategy in this drill is the same as at drills 25.1 and 25.2. A runner should envision the two "cones" where he can get the disc. (They're "in" and "deep".) He should start close to one of them and run at full speed to the other. He then either continues running or decides to turn around.
- » Some runners will take lots of hesitant steps or make very short cuts. This is not effective. It will not fake out any good defender and is likely to result in miscommunications between the runner and the thrower.
- » The runner should adjust his strategy based on the thrower. If the thrower has a good deep huck, the runner can make longer cuts. If the thrower does not have a good long throw, the runner should stay closer and be more content with a short in-cut.
- » The defender should always try to remain low and balanced. His (nearly impossible) job is to take away two options of the runner at the same time. The only way to do this is hope that the offense makes a mistake and be present to take advantage of it. As such, it's important that the defender always applies pressure. He should never give up on a disc until it's been caught.

#### *Advanced extensions*

- » You can also allow the marker to set up a straight force. In this case, the two threats aren't in and deep, but left and right. Runners should see this and adjust their cuts accordingly.
- » If this drill goes well, continue with drills 28.3 and 28.4.

## 28.3. Two on two cutting

### Theory

In a match there usually isn't just one cutter. There are more. Now the runners have the added complication of not getting in each other's way. This drill practises how to deal with that.



### Drill set-up

This drill builds onward from the previous drill (28.2). But contrary to the previous drill, we now have two runners, each with a defender. (See the figure on the right.) Players may set up in any way they want. The goals are still the same. The offense needs to get the disc upfield.

It might be wise to add that the defense in this drill should apply a normal man defense. No fancy tricks (like switching) are allowed yet, even for those that know them. That will come later.



The rotation is again in pairs. The pair that's already run twice clears the field to evaluate.

### Points of attention

- » You might want to set up the drill such that the thrower throws downwind. This makes the long throw a bit easier. After all, throwing a long pass is hard enough if you already have a marker on you.
- » In this drill, the offensive players may set up in any way they want. However, it may happen that they set up in the same way all the time. To improve the learning experience, both for the offense and the defense, ask them to vary their strategy.
- » The offensive players should coordinate their cuts such that they don't run into each other's spaces. If they don't manage to do this, you can give them pointers on how they might do this. For example, let players agree that one player cuts in and the other deep. If the disc isn't thrown, both players then turn around.

### Advanced extension

- » Just like in the previous drill (28.2), you can allow the marker to set up a straight force.
- » If this drill goes well, continue with the next drill (28.4).

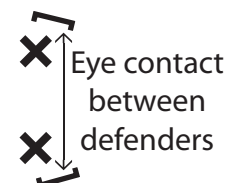
## 28.4. Two on two cutting with switching

### Theory

Imagine you're on defense and you see that some other offensive player is running deep, beating his defender. It's a dangerous threat, but you see that you are in the position to take over. If you do, the defender whose job you take over should take over your job though. This switching of players you're defending is called a *switch*.

The switch is a very powerful move, but it's also hard to do. It first of all requires good field sense. Defenders have to know what's going on around them to apply it. Secondly, it requires good communication between teammates, or you will wind up with two defenders defending the same opponent.

Keeping field sense during a game is something that comes with experience. However, it can also be practised. The trick here is to use every opportunity you get to look at the game around you. Where is everyone? Also make lots of eye contact with your teammates. Are there perhaps players you can switch with?



### Drill set-up

The drill through which we'll practise the switch is almost exactly the same as the previous drill (28.3). However, now we try to apply switches.

Before every drill execution starts, the defenders do two things. First of all, they reposition themselves such that they have potential switches within their field of sight.



(See the figure on the previous page.) Secondly, they make eye contact with their fellow defender. By doing this, they communicate that they might take over for each other.

### ***Points of attention***

- » It's important that players realize that we're still applying a man defense. It's certainly not the case that one defender always covers the in-cuts while the other covers the deep cuts. (That would be a zone defense.) If the offensive players are far apart, no switching is possible and defenders should simply stick with the player they're defending.
- » It is wise if, the first month or two when you're applying switches with your team, players clearly indicate switches. Players should yell out "switch" and point to the player that was originally theirs and which the other needs to take over. Later on, as players get more and more used to applying switches with each other, mere eye contact will suffice. This "silent switch" will also be more powerful as it surprises the defense.
- » The switch defense is very strong, because you can shut off two options with it. One player can cover the in-cuts while the other can cover the deep throw. To do this well, we must have the in-defender always stay in front of any offensive player, while the deep defender always stays behind.
- » A good strategy for offense would be that both runners cut in, one on the open side and one on the closed side. If the in-defender needs to choose which player to defend, it's best if he chooses the runner on the open side. After all, this is the most immediate and most dangerous threat.

### ***Advanced extensions***

- » You can experiment with how close two runners have to be before a switch is possible. If two runners run past each other with twenty meters in-between, a switch won't be possible. If it's two meters, a switch will be possible. Where's the break-even point? What does it depend on? Discuss it with your team.
- » If you're further along in the season, you can train silent switches. Forbid players to call out "switch". Communication is only done through eye contact, nodding, and possibly through gestures like pointing.

## **28.5. Give and go drill**

### ***Theory***

When you're a cutter and you receive a disc on an in-cut, the first thing you try to do is see if you can dump it back to the handlers. After you do, you can immediately continue cutting, leaving your exhausted defender behind. With this drill we practise this very powerful offensive habit.

### ***Drill set-up***

This drill is done in groups of four. We have two handlers and two runners.

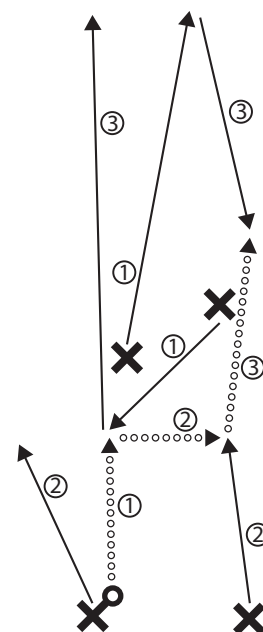
The runners cut in and out. They try to do this such that always one of them is creating an option with an in-cut and the other creates a deep option. (See the figure.)

The handlers may only throw discs on in-cuts. (No long throws yet with this drill.) They may also fake a throw to an in-cut. In this case, the cutter should turn around and run deep again. Furthermore, the stall count is four (with offense counting for themselves), so handlers should pass the disc between each other a lot too.

As to rotation: groups do this one after the other. After a group has crossed the field, they walk back along the side of the field, evaluating their performance.

### ***Points of attention***

- » Make sure that one group is quite far along the field before the next group starts. Otherwise they can run into each other, which may lead to dangerous situations.





- » No long throws are allowed in this drill. As a result, it may happen that runners stop running adequately deep and always stay close to the handlers. This makes the drill unrealistic. Good cuts should not come within ten meters of the handlers and should go up to thirty meters away from the handlers. If you see runners staying too close to the handlers, ask them to make longer cuts.
- » Some handlers, when trying to get the disc back from a cutter, run directly at the cutter. This makes the resulting dump pass quite hard. It's better to run next to the cutter to get a horizontal dump pass of at least five meters long. Such a pass is much easier to throw and catch and it keeps your game wide.
- » It's good if the handlers also throw discs among each other. This keeps the game dynamic. However, it's important to do this in a realistic way. Though there are no defenders, throwers should pretend that there are defenders on them, putting at least some pressure on the dump pass.

### ***Advanced extensions***

- » You can extend this drill by also allowing deep passes. However, you then do need a large field, and you still run the risk that groups reach the opposite side of the field with only two passes.
- » If this drill is going well, continue with drill 28.6.

## **28.6. Give and go drill with defenders**

### ***Theory***

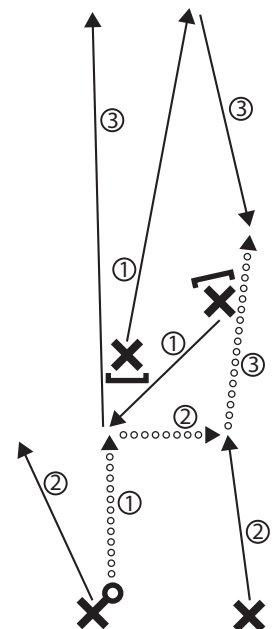
It's time to make the previous drill a bit more realistic by adding defenders to the runners. These defenders can then practise switching in a more game-like situation.

### ***Drill set-up***

This drill is nearly the same as the previous drill (28.5), but now we add defenders to the runners. The drill is therefore done in groups of six.

It's the task of the defenders to reduce the throwing options of the offense as much as they can. While doing so, they should try to keep their field sense, applying switches wherever possible.

To prevent defenders from only taking away in-cuts, in this drill long throws actually are allowed. The rotation is still the same as in the previous drill.



### ***Points of attention***

- » If the defenders want to apply switches, they should make eye contact already before the drill execution starts. Once they're running, it's often too late to make eye contact anymore. Players often forget this, so feel free to remind them of this.
- » Encourage players to try switches. However, switches should only be done when they give an extra advantage to the defense. If a switch is very confusing, or if a switch leaves an offensive player wide open, it should not be executed. If players do try to switch, discuss it with them afterward.

### ***Advanced extensions***

- » When the game is stopped for any reason (like a foul or violation call), defenders get the chance to regain field sense. In such a situation, defenders should always check how the game is set up. Where is the offense? Where is the defense? Where are the threats? Can potential switches shut down some of these threats? If so, who can I switch with? Those are questions which defenders should ask themselves.

To implement this in the drill, you can have an external player (possibly yourself) occasionally make a foul or violation call. Defenders should then reorient themselves such that they can see the field, make eye contact with team mates and become aware of potential switches. (This is in fact drill 29.5.)

- » You can also expand this drill to incorporate more elements of the horizontal stack. In fact, that will be done in drill 29.6.

### Training recap

When two defenders interchange the player they're defending, they're applying a *switch*. This is a very powerful defensive trick. To execute it, defenders need to have a strong field sense and good communication within the team.

To maintain a strong field sense, it's important that defenders look around, analysing the game, whenever they can. They should also position themselves such that they can keep the main part of the field within their line of sight.

At the start of the season, when applying a switch, it's important for defenders to call out "switch" and point to the person which their teammate should take over. Later on, as players get more used to applying switches, *silent switches* can be used, in which eye contact is the only method of communication.

## 29. Switch defense and the horizontal stack

The switch defense isn't something you pick up overnight. It requires lots of practice. Its application also depends on the strategy which the offense is playing. Here we'll be practising it with the horizontal stack. This of course also means we have a great opportunity to practise our horizontal stack play again.

### *Prior knowledge*

For this training, players should already know what a switch is, treated in the previous training (27). It also helps if most players still remember the horizontal stack play, treated in training 6.

### 29.1. Cone throwing drill

#### *Theory*

Imagine that you're fully stepping out to the backhand side for a low release pass there. Now imagine that you're stepping out to the forehand side for a low release pass there. The distance between these two release points is (if done well) over three meters. That's a lot of ground to cover for a marker.

To create these threats, a thrower should of course be capable of stepping out really far and throwing a low release pass as far away from his pivot point as possible. That's what we're going to practise in this drill.

#### *Drill set-up*

This is a basic throwing drill. Every pair has one disc. Furthermore, every player has two cones. The distance between each pair is 10 to 15 meters.

We're going to start off with the backhand throw. The thrower puts one cone near his pivot foot. He then steps out to the backhand side and puts the other cone at the furthest point where he could release his backhand throw. This gives him a good reference for how far he's actually stepping out. He then proceeds to throw five low release backhand passes. After this, he shifts the cones and goes for five forehand passes. This repeats.

In this drill it is important that throws are released low, beneath knee height. If a thrower does not release the throw beneath knee height, his partner should indicate this. The thrower should then go for an even lower release. In this way do players help each other to improve.

#### *Points of attention*

- » When stepping out very far, you use your hamstrings a lot. To prevent injuries, it's important that these hamstrings are warmed up properly. A warming-up with intense knee lifts is a must, and some lunges during/after the warming-up are quite appropriate too.
- » You may have told players to correct their partner if they release a disc above knee height. However, this doesn't always happen. So check for it yourself too. Discs should be released below knee height.
- » When doing a low-release forehand throw, it may happen that your elbow hits your knee, causing you to drop the disc. The trick to prevent this is to have your arm outstretched during your throw. This slightly reduces your power, but it also means that your release point is even further away from your pivot point.
- » After this drill, players have done a lot of lunges on their non-pivot-leg. They've trained that hamstring considerably. If they would leave it at that, and have only one hamstring well-trained, they could get a slight misbalance in their running form, possibly resulting in injuries. It's therefore important to also do some lunges on the other leg afterward. In this way do you ensure that players remain balanced.

#### *Advanced extensions*

- » When this drill is going well, you could add a fake to the other side before the low-release throw. Or you could add a marker and task the thrower to throw under the hands of the marker.

## 29.2. Battle for field sense

### Theory

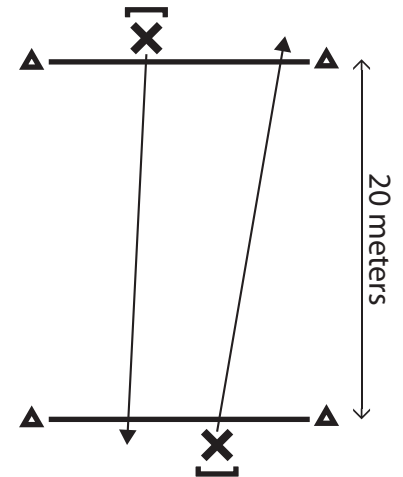
Imagine you're on defense, running after someone. Then you see that another offensive player is coming right toward you, with a defender trailing him. It's the ideal situation for a switch. This would be less so if the two offensive players would pass each other with ten meters in-between. Quickly being able to see which situation would allow a switch and which does not is a useful skill to have. It's also what this drill practises.

### Drill set-up

This drill is done in groups of 8 to 12 players. Make two lines, roughly twenty meters apart. During every drill execution four players are active. (See the figure on the right.) One offensive runner will run from one line to the other (as if he's the last in the stack, cutting in) while the other runner will run from the other line to the former (as if he's the first in the stack, going deep). Both runners have a defender following them.

If the defenders think that a switch is warranted, then they should switch. In this case one defender still covers the deep option while the other still covers the in-cut. If however a switch is not worth while, the defenders should simply continue to follow their runners as closely as possible.

The rotation in this drill is loose. If a player is ready to run, he can run.



### Points of attention

- » Runners should run in a straight line from one line to the other. It doesn't have to be a "vertical" line though. Their path may deviate up to thirty degrees from a vertical line. This keeps the drill game-like.
- » Finding out when to switch is hard. Often, even after the event, players are hesitant about whether they should've switched. It helps if you give lots of feedback here. Tell players if they should've switched or not.
- » When a switch does not take place, the defenders should not slow down. We're still doing a man defense! They should still follow the player they're defending as closely as possible, like they normally do.
- » When a switch does take place, the defenders should make sure that they really shut down both options. After the switch, a defender shouldn't be trailing behind the new runner he's defending. He should be running ahead of the runner, shutting down any pass which he might get in that direction.
- » Sometimes players simply don't see a potential switch. The reason behind this is that they keep their eye-sight too focused on the runner they're defending. This drill should also train runners, even when they're running at full speed after an offensive player, to take in the situation around them.

### Advanced extensions

- » You can instruct runners to turn around when reaching the line. That is, they run the whole 20 meters two (or even three) times. In this case, you will see that defenders lose more and more field sense as the drill progresses and switches become harder and harder. If the defenders still want to apply switches, they should really try to regain field sense - take in the situation around them - whenever they can.
- » You can apply the point above, but now also allow runners to turn around whenever they want. That is, the runners may turn around even before they reach the opposite line. This makes the drill more realistic, as it becomes less predictable for the defenders when the runners will make a cut and turn back.

## 29.3. Give and go drill

Briefly repeat drill 28.5 to let players get used to the give and go running pattern again.

## 29.4. Give and go drill with defenders

Repeat drill 28.6 to again let players practise switching, as well as deciding when to switch.

## 29.5. Give and go drill with random calls

### *Theory*

Imagine you're in a match, defending a runner. You've totally lost every clue about what's going on in the field. And then there's a call somewhere on the other side of the field. What do you do?

Well, other than catching a breath and kicking out your legs a bit, the first thing that you should do is analyze the game. How is the offense positioned? How is the defense positioned? What are the immediate threats of the offense? What are they likely to do? Can this be prevented in some way?

Next to this, another very important thing to do is to make eye contact with your teammates. Is there potentially a player you can switch with? If so, is this clear for that teammate as well?

### *Drill set-up*

The set-up of this drill is exactly the same as that of the previous drill (28.6/29.4). However, now there's also one extra player that walks along on the sideline. Every now and then this player makes a call, like "Foul", "Violation", "Travel" or whatever else he comes up with. Upon the call, the game is stopped. All players then need to look around them, analyze the game and try to get communication going with their teammates.

### *Points of attention*

- » It often happens, with players that aren't so used to the switching idea, that there's a perfect switching opportunity right after a call that is totally ignored. If you see this, feel free to freeze the game yourself with another call. Point it out to players and ask them to keep their eyes open more for switches.
- » Switches are easier if players have the teammate they want to switch with in their line of sight. So, after a call, it helps if players reorient themselves. That is, they should rotate their body such that the teammates they can switch with are in their field of view. Players may need to slightly reposition themselves as well (for as much as is allowed) so as not to lose sight of the runner they're defending.
- » Defenders aren't the only ones who should get busy when a call is made. Offensive players should also be analyzing the game and communicating with teammates. Make it clear who runs where so that, when the disc is in, your offense is immediately dangerous again.

### *Advanced extensions*

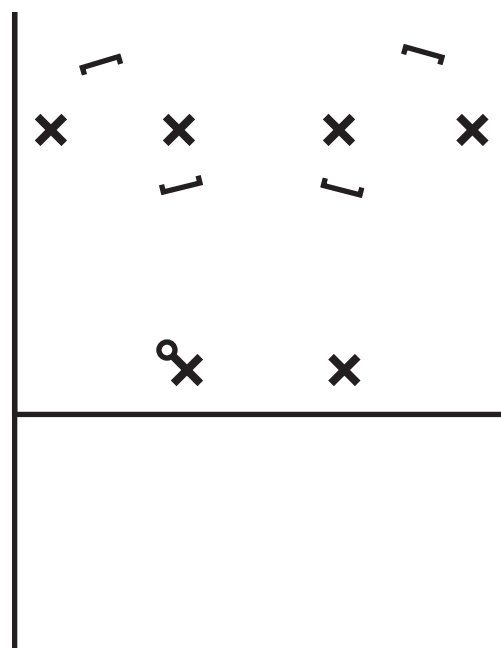
- » When this drill goes well, you can expand it toward an actual horizontal stack play. This is done in the next drill (29.6).

## 29.6. Horizontal stack cutting

### *Theory*

In a real match, we don't just have two cutters. We usually have four. So to make things more game-like, we're going to add two more runners, each with a defender.

The cutting pattern is the same as earlier. The two middle players are running. The two sideline players are stationary, keeping their defenders away from the game. After one or two cuts, the middle runners should switch with the sideline runners, so that they can regain field sense and so that we always have fresh cutters.



## ***Drill set-up***

The drill set-up is exactly the same as that of the previous couple of drills (29.3 through 29.5), except that we now have 10 players.

## ***Points of attention***

- » One of the goals of this drill is to train the running pattern of the horizontal stack. The middle two runners should run in an alternating (piston-like) motion. There should always be a threat deep and a threat in. If players notice that this doesn't go as well as it should, and they don't know how to fix it, then apparently they don't have enough field sense anymore. It's time to clear out to the sideline to let others cut.
- » Players may ask questions about the running pattern. "When should the sideline player run? When he's replaced? Or when he sees an opening himself?" The answer is "both." Often, as a sideline player, you wait until one of the other runners clears out. However, when you're on the sideline and you see an opening where you can get the disc, you can of course also just go and use it. In this case the other runners should realise that there are now three active runners. One of them should clear out to the sideline.
- » If a defender is covering one of the runners on the sideline, he can keep his eyes open for switches. Maybe he can take over a cutter that's running deep? At the same time, if a runner is on the sideline and sees that his defender is only busy with other things, he can take advantage of it. He can just run off to get the disc.

## ***Advanced extensions***

- » You can incorporate the idea of the previous drill (29.5). That is, you can have an additional player (or possibly yourself) make calls that stop the game, after which players use this pause to regain field sense.
- » The best way to practise the horizontal stack, including applying switches, is through a real game. You can set up a real game in which teams try to set up the horizontal stack in the proper way. If it doesn't go as planned, try to figure out why it doesn't and discuss with the teams how they can fix it. During the game, you may also occasionally want to freeze the match to let players look for potential switches.
- » You can discuss with your team the best way to initially set up the horizontal stack. Exactly horizontal? Or slightly tilted to one side? The answer here is that it's wise to tilt the horizontal stack a bit. The closed side should stay a bit closer to the handlers. This prevents that the defenders there poach on the deep throw. The cutters on the open side should stay a bit further away from the handlers. This gives them more space for an in-cut, while it also gives the handlers more room to make handler cuts.

### **Training recap**

If a thrower can release his throws very far away from his pivot point, and also very low to the ground, he has a very powerful tool to break marks.

The offense and defense are continuously locked in a battle for field sense. That's why, as a defender, you should always try to keep as much field sense as possible. When you're trailing a runner, keep your eyes open. When there's a call, take in the field around you. Make eye contact with teammates. Only by doing this can you possibly have enough field sense to apply effective switches.



## 30. Vertical stack set-up finetuning

Next to the horizontal stack, it is also useful if your team can play a vertical stack. In this training we will re-cap how it works, as well as finetune the way in which we set up the vertical stack and move it across the field.

### *Prior knowledge*

For this training it's important that players already know how the vertical stack (treated in training 7) works.

### 30.1. Coaching the marker

#### *Theory*

When marking, it would be nice if you can adjust to what's going on upfield. Looking upfield isn't really an option though. But you can adjust, if you have a teammate on the sideline looking upfield for you. This *coach* then coaches you on how to adjust your mark.

So what ways are there to adjust your mark? This depends on the situation. Let's assume that we're applying a force in some direction. If a runner is about to come open for an around break pass, your coach will shout "no around". This means you should shift a bit to put extra pressure on the around throw, keeping your hand on that side high. Alternatively, if there's no one even close for an around pass, your coach can yell "no inside". This time you shift a bit to block inside break throws, keeping your hand on that side low.

It may also happen that a runner is about to get open for a deep pass. In this case your coach calls out "no deep" or "no huck". It means you should prevent any deep throw. To do so, you set up a straight mark two meters in front of the thrower. This makes it very hard for him to huck a disc past you.

Finally your coach (or an on-field player) may call out "strike!" This means that a runner is about to get dangerously open on the open side. You need to shift your mark to the other side, blocking the open side for a single second, after which you switch back to a normal mark again.

#### *Drill set-up*

This drill focuses on listening to a coach while marking. It's done in pairs. Each pair consists of one handler and one marker. The handler has a disc and only makes fakes upfield. He doesn't actually throw the disc. The marker sets up a force to one side. He subsequently keeps his ears open for calls like "no inside", "no around", "no huck" and "strike" and adjusts appropriately. (These calls are made centrally by the trainer.)

Marking is done for 30 to 40 seconds straight. After this, players switch roles. This is repeated for 3 or 4 times.

#### *Points of attention*

- » You, as a trainer, walk around giving loud commands like "no huck!" In-between these loud commands, you can give some quick feedback to individual markers, like "move around a bit more for a strike call."
- » You may also add calls like "foul" and "pick" to the drill. When this happens, play stops for a short time. During this time, markers can take a breath, kick out their legs and get ready for more intense marking.

#### *Advanced extensions*

- » This drill doesn't teach players the actual coaching itself. The best way to practise this is in a real game. Play a game with your team and tell a sideline player to coach the marker. Afterward, discuss with the coaching sideline player how it went. What went well? And what can be improved?
- » In your team, you might want to assign to every defensive player a dedicated coach whom they know well. It helps to be coached by someone familiar to you, rather than by someone you never play with.
- » Coaching of the marker is also important when you're applying a straight force. In this case, commands are "left", "right" and "no huck". You can do a drill practising this too.

## 30.2. Vertical stack recap

### Theory

Previously (in training 7) we've already discussed the responsibilities of the players in the vertical stack. We're quickly going to recap those.

The responsibility of the first player in the stack (the *anchor*) is to properly position the stack in the middle of the field, 10 to 15 meters upfield from the thrower. He should also always be ready to catch an inside pass.

The responsibility of the last player in the stack is to make sure that there is always someone cutting in to the open side. If this cutter does not get the disc, he should clear out in a dangerous way, which usually means running deep. Subsequently, he should re-enter the stack from the closed side in position 2.

All other players in the stack are 3 meters away from the player in front of them. These players are catching their breath and regaining their field sense.

### Drill set-up

We're going to practise this in the same way as before (drill 7.4). We have a stack of 5 players, a thrower and a marker. Remaining players line up behind the thrower.

The last player in the stack makes sure that there is a cut (run 1). So he either sees someone running in, orders someone to run in or runs toward the disc himself. The thrower may throw the disc to him, but he may also decide to hold the disc.

If the thrower holds the disc, the runner needs to clear out in a dangerous way (run 2), either by running deep or running to the closed side. Again, the thrower may throw this pass or he may not. If the runner does not get the disc, he goes back into the stack from the closed side. In the meantime, another runner should be running.

When the marker is slacking off, the thrower may also throw an inside pass to the first in the stack. This anchor player should always expect such a pass.

When a disc is thrown to any runner, then this runner catches the disc and leaves the drill. He lines up behind the thrower. The thrower becomes the first in the stack. The marker becomes the new thrower. The front person in the waiting line gives his disc to this new thrower and starts marking himself.

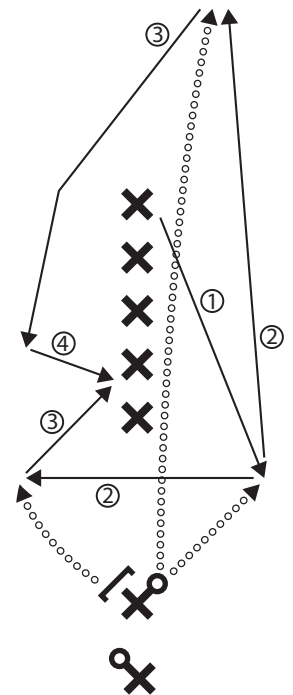
Note that this is a continuous drill. It should continue without a pause.

### Points of attention

- » It will require some practice to get this drill running smoothly. Everyone needs to pay attention to what's going on and keep track of their responsibilities. When cuts are coming in at a high pace (that is, there's an in-cutter roughly every three seconds) then you know things are going well.
- » It may happen that players do the same thing all the time. For example, they may always cut from the back of the stack, and then always go deep. Encourage your team to try out all the options that are available to the vertical stack. Only in this way can the team optimally adapt to any situation.

### Advanced extensions

- » You can do this drill with defenders. Now players rotate in pairs. When a pair has left the drill and joined the waiting line, they switch roles.
- » If this drill is going well, continue with the next drill (30.3).



### 30.3. Setting up the stack

#### Theory

What's the ideal position of the stack? Exactly in the middle? And should it be exactly vertical or perhaps rotated slightly?

First of all, it doesn't have to be exactly vertical. A stack generally has a side with defenders (the open side) and a side without defenders (the closed side). It helps if the stack turns the side without defenders toward the thrower. (See the figure on the right.) By doing so, it becomes easier for the thrower to throw an inside break pass to anyone in the stack.

But what if the disc is near the line? If the stack is then still in the middle, it can be hard to reach. In fact, many teams regularly get trapped on the line, with no way to reach the stack.

The trick here is to rotate the stack (up to 30 degrees) toward the thrower. To see why this works, imagine that the field has rotated as well. (See the figure on the right.) In this imaginary field, we're in the middle! So we can set up our vertical stack just like we normally would do.

#### Drill set-up

Setting up the vertical stack in the right way can be hard. This is especially so when you have to do it quickly, for instance after a turnover. With this drill we practise doing so.

The set-up and the rotation of this drill is exactly the same as of the previous drill (30.2). There's only one difference. The front player in the waiting line doesn't just give his disc to the new thrower. Instead, he throws his disc anywhere in the field (though not too far). The new thrower runs to pick up the disc, while the stack runs to set up appropriately.

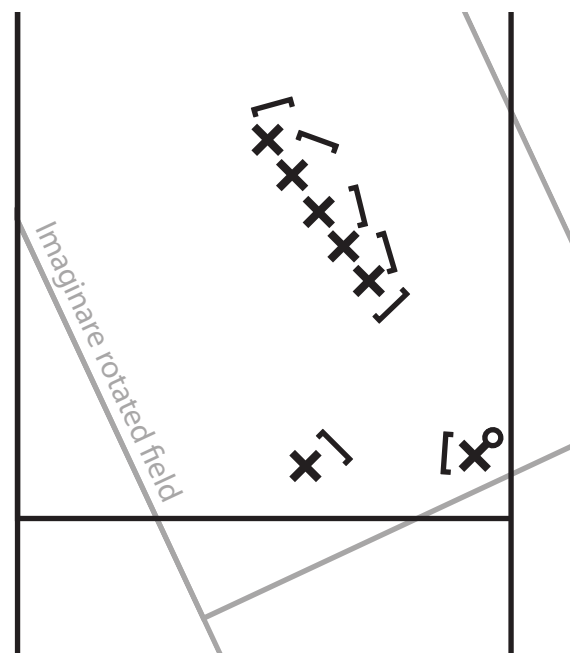
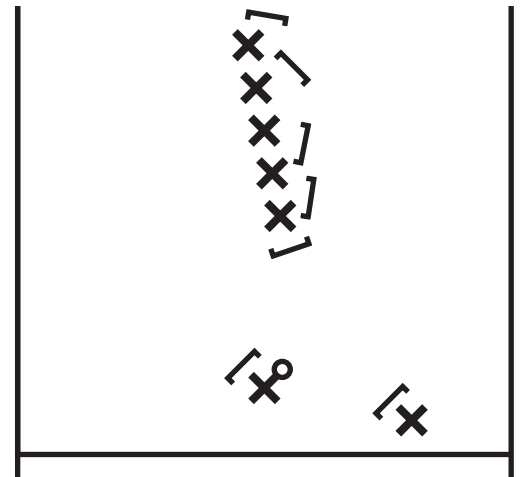
#### Points of attention

- » Initially players will be a bit unsure on how to set up the stack. Is it too far or too close? Have they rotated the stack enough? It's okay to occasionally freeze the drill to give some feedback on how the stack has been set up. What's going better and what can still be improved? Players will appreciate this.
- » Players will often be so busy with setting the stack up in the right way that they will forget to cut. The moment that the thrower picks up the disc, the first option should already be available. This means someone should already start running before the disc is picked up! Encourage players to start running early.

#### Advanced extensions

- » Again you can do this drill with defenders, having players rotate in pairs.
- » This drill practises setting up a stack with the right orientation. It doesn't practise setting up a stack from scratch. If you notice during games that your team is not able to quickly set up a stack after a turnover, you might want to practise that too. To do so, you can do the following (completely different) drill.

Let seven players run around randomly across the field. At a certain moment, the trainer (you) will throw the disc anywhere in the field and yell "turn!" At this point the team needs to set up a vertical stack as soon as possible. You can even encourage the team to do so quickly, by counting down from 5.



## 30.4. Moving up the stack

### Theory

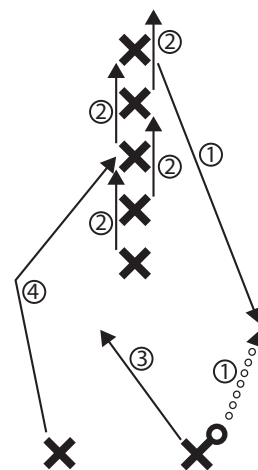
Imagine we're in an actual match. A cutter runs in (run 1 in the figure on the right) and gets the disc (pass 1). What should happen next?

First of all, the stack should move upfield (run 2). This is the responsibility of the anchor. He should back up, such that he's 10 to 15 meters away from the throwers again.

But what should the cutter that got the disc do? If he can, this cutter should immediately dump the disc back to one of the handlers. By doing so, we keep the disc moving, which keeps the defense off-balance. Next, the cutter should continue running, just as if he never got a disc at all. That is, he should clear out in a dangerous way.

But what if the cutter cannot dump the disc back? In that case he becomes a handler. The other handlers simply move up (run 3), except now we've got a handler too many.

To solve this, the handler on the far side becomes a cutter. He enters the stack from the closed side (run 4).



### Drill set-up

We're going to practise the process of "moving up the stack" in groups of seven. We have two handlers and five runners, just as in the figure above. The drill mostly works the same as the previous drill (30.2). Cutters run in and might or might not get the disc. If they don't, they clear out and rejoin the stack.

However, now when a runner gets the disc, he isn't removed from the drill. Instead, he has two options. He can immediately dump the disc back to a handler and continue running as normal, or he fakes the dump pass and stays on as handler. In the latter case, the handler on the far side should move up to become a cutter.

This drill continues until the group has reached the other side of the field. Then they go off to evaluate.

### Points of attention

- » When a cutter gets the disc and cannot dump it back within one or two seconds, then he stays on as a handler. Even when he later passes the disc on, he still stays a handler. After all, the handler which he originally replaced has already moved into the stack. This idea of "suddenly being a handler" might be confusing to players that have never been a handler before, but this doesn't mean they should just run off.
- » It may also be confusing which handler should become a cutter and where he should run. When you notice players have significant difficulties with this, feel free to freeze the drill and point things out.

### Advanced extensions

- » You don't necessarily have to take into account the "rotating stack" of the previous drill (30.3). However, if you think the team is ready for it, you can pay specific attention that the stack does rotate depending on where the disc is in the field. You can even encourage the handlers to swing the disc to the sides, to give the stack even more of a challenge to set up correctly.
- » You can again add defenders to this drill. Initially these defenders shouldn't play at full speed. Later on, as the offense starts to get a hang of things, the defense can play at full speed. When the defense intercepts the disc, they just give the disc back to the offense and offense continues as if nothing happened.
- » If this drill is going well, continue with the next drill (30.5). Though actually, this next drill is the previous two advanced extensions combined.

## 30.5. A full vertical stack play

### Theory

It's time to put everything together. We know how the cutting pattern of the vertical stack works (drill 30.2),

how exactly the stack should set up, based on where the disc is (drill 30.3), and how the stack should then move up the field (drill 30.4). But can we apply all that knowledge with defenders breathing down our neck?

### ***Drill set-up***

This drill is exactly the same as the previous drill (30.4), except now we add defense. This drill therefore requires 14 players. Initially the defense shouldn't play at full intensity. Later on, as the offense gets used to the drill, the defense should start to play at full intensity. When there's a turnover, the offense gets the disc back and play continues as if the turnover never happened.

When the stack has crossed the field and reached (or got close to) the endzone, the drill stops. The offense briefly evaluates their performance. What went well? What could've been improved. The defense runs back and (depending on the number of players) becomes the new offense.

### ***Points of attention***

- » The funny thing is that, now that there's defense around, many players start doing entirely different things. They are tempted to fall back into old habits. Encourage them to stick with the system. Initially this system might not intuitively make sense to players, but it will start to when players get used to it.
- » It may happen that the handlers are very focused on getting the disc forward. They shouldn't also forget to regularly dump the disc to each other. This doesn't only keep the stall count low, but it also moves the disc, creating extra opportunities to move the disc upfield to a cutter.

### ***Advanced extensions***

- » When the defense is playing at full intensity, this drill is about as real as it gets. The only way in which you can make this drill more gamelike is by playing an actual game with a vertical stack.

### **Training recap**

When the defense has a properly coached marker, it can apply much more pressure on the offense. To achieve this, the defense needs to have a sideline player call out things like "no inside", "no around", "no huck" and "strike!"

Players in the vertical stack all have responsibilities. The first in the stack (the anchor) should set the stack up correctly. The last in the stack should make sure that there is a cut. Everyone else should be busy regaining field sense.

The vertical stack doesn't always have to be exactly vertical. First of all, it helps if the stack turns the side without defenders toward the thrower. Secondly, when the disc is near the line, the entire stack should point toward the thrower, as if the field has rotated. From that set-up you can simply play as usual.

# 31. Zone defense - the cup

In outdoor Ultimate we often have wind. And when there's wind, a zone defense can be very effective. The next few trainings will focus on how to set up a zone and how to beat one. This first training is about the cup.

## *Prior knowledge*

Some prior knowledge about the zone would be helpful for this training. The indoor zone trainings (16 to 18) should be sufficient for this. If this prior knowledge is not present, extra explanations may be required.

## 31.1. Low throwing

### *Theory*

When there's a lot of wind, making accurate throws can be hard. You'll need to throw the disc such that the wind will not affect it. To do so, discs need to be thrown flat and they need to have lots of spin. It also helps if the throws have quite a bit of speed. If they do, any sudden variations in the wind speed will have less effect.

But perhaps the best way to prevent the wind from affecting a disc, is to throw a low pass. Near the ground, the wind speed is lower than high up in the air. So if your throw never comes above chest height, it should be relatively safe from the wind. This drill practises to throw such low throws.

### *Drill set-up*

This is a basic throwing drill. Put players 10 to 15 meters apart. Players should throw low release passes that never go above chest height.

### *Points of attention*

- » It's good to do this drill when there actually is a lot of wind. In this case, any disc that isn't thrown properly immediately floats off. The wind will give players quicker feedback than any trainer can give.
- » Encourage players to not only keep their throws low, but also to release their passes as close to the ground as possible. If thrown well, the disc will go up a little bit before reaching a steady height.
- » Players should aim to have their throws arrive flat. To do so, throws should be made slightly inside, with lots of spin. It also helps if the passes are fast and "slice" through the air.
- » In this drill, receivers should focus on applying the right catching technique. When there's a lot of wind, players should apply pancake catches (with the correct hand under) whenever possible. Although when a disc arrives below knee height, a two-handed rim catch is more appropriate. After all, because the disc is so low to the ground, it's not affected by wind anyway.

### *Advanced extensions*

- » One way to extend this drill is to challenge players to step out as far as possible. In fact, this has already been done in the Cone throwing drill (29.1). Do note that, when throwing low passes, you don't always have to step out very far. In fact, if you want to throw through a cup, all that matters is that the pass is quick. But if you want to break a mark, then releasing the disc far from your pivot point can be beneficial.
- » Throwing low passes to a stationary receiver is one thing. Throwing it to a running person is another. You can do a heads-on drill (15.1 or 15.2) in which players should try to keep all passes below chest height.

## 31.2. El Rondo

### *Theory*

In an outdoor zone defense, we always have some kind of cup around the thrower that tries to block passes



in some direction. To practise setting up this cup and breaking through the cup, the Rondo drill is useful.

### ***Drill set-up***

This drill is done in groups of 7 players. Use cones to make a square with sides of 10 meters long. (See the figure.) There should be a thrower at each cone. The remaining three players are defenders. They set up a cup around the thrower.

One of the defenders will be the marker. His job is to shut down the throw to one of the side players. He doesn't just put up a straight mark though. That would make the around throw (pass 1 in the figure) too easy. He forces the thrower a bit toward the rest of the cup.

Of course such a mark will leave the inside break (pass 2) wide open. That's why the second defender should always be close enough to the marker to block this throw. Furthermore, he should be covering enough space to have a shot at blocking the diagonal pass across the square (pass 3). The third defender also needs to help block the diagonal pass, but he needs to block the pass to the receiver on the open side (pass 4) as well.

In this drill, it's the job of the throwers to pass the disc among them. Only backhands and forehands are allowed. After every pass, the throwers allow the cup to set up. When there's a turnover, the player (thrower or receiver) that caused the turnover joins the cup. The player that's been in the cup the longest replaces him.

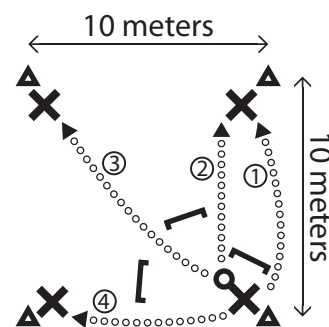
### ***Points of attention***

- » If you don't have a group of 7 players, but a group of 8 or 9 players, then you can also incorporate these players into the drill. In this case, set up a pentagon/hexagon of cones. In this case the drill would be very unfair for the cup, so you add the rule that throwers may not throw to their neighbour on the open side.
- » The most important part of this drill is that the cup is set up correctly. If the cup isn't set up correctly, then there should be an option wide open. Tell throwers to take advantage of that option right away. This teaches the cup exactly where the holes are in their set-up.
- » If the cup wants to block a pass, they always need to be low and balanced. Only then will they be able to move quickly enough to block a throw. So encourage players to always be low and on their toes.
- » This drill isn't only about setting up the cup. It's also about breaking through the cup. To do that, throwers should keep their eyes open for small holes appearing in the cup. When a thrower sees a small hole, it's often not big enough yet to throw a pass through. So the first step is to make the hole bigger, by making the right fake. Then the thrower should make a quick and low pass through the hole he just created.
- » Next to breaking through the cup, throwers should also watch out for double teaming. If the cup is too close, throwers should call this out. After all, in a match they should also do so.

### ***Advanced extensions***

- » In this drill, the throwers have always allowed the cup to set up. If this drill is going well, you can also tell the throwers that they do not have to wait for the cup to set up. The good part of this extension is that it encourages the cup to set up quickly. The bad part is that setting up the cup in this drill is nothing like setting up a cup in a real game, so it doesn't really practise anything useful.
- » You can discuss with your team what the cup defenders should do once they're set up. Should they be stationary, ready to block any pass? Or should they still move? Generally, up to a medium level of Ultimate, being stationary works well. Passes aren't always accurate, so when a disc is thrown and you're ready to move, there's a good chance you might be able to block it.

On a higher level, things are different though. Now throwers know exactly which holes are big enough to get the disc through. Being stationary won't get you a block. The key here is to move a lot and to move unpredictably. By doing so, you can cover a much bigger area. However, you can't always be certain that, when the disc is thrown through your area, you can get the block. After all, you're moving around unpredictably. You do have a chance to block the disc though, and on a high level that's actually good enough.



### 31.3. Confining zone cup motion

#### Theory

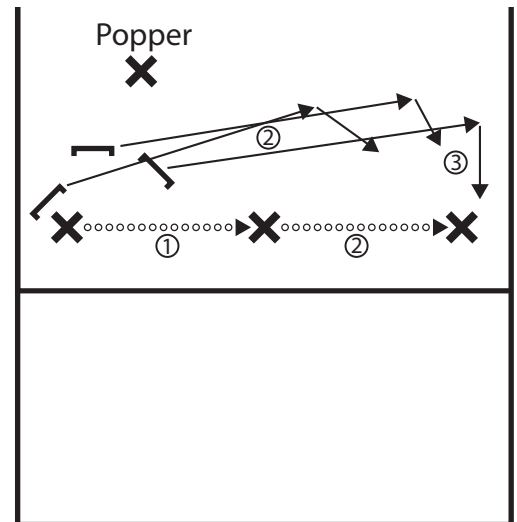
In indoor Ultimate we've seen the confining zone defense. (See drill 17.2.) The main idea there was that we prevent throws forward. In outdoor Ultimate, this same idea holds, but now we have a cup of three players.

First of all we have a marker. This marker prevents throws that go around the field. The next cup defender blocks throws directly forward. The last cup defender blocks throws that go diagonally forward. Passes between the handlers are allowed. In fact, if the cup defenders try to stop those too, then there will be holes in the cup, allowing the offense to throw the disc forward.

What the offense usually will do, is swing the disc to the other side of the field. (See the figure.) In this case the cup should move. The first thing that they need to do is *expand*. That is, they should fall back, forming a big wall a bit further away from the handlers. By being big, the cup is a lot less vulnerable while moving.

After the cup has formed a big protective wall in front of the new thrower, it should *contract* again. The defender that's closest to the sideline will be marking. The others set up accordingly.

In this drill, we're also going to add a *popper*. This is an offensive player in the middle of the field that tries to find holes in the cup. In general, whenever a thrower is able to throw the disc through the cup, there should be a popper ready to receive the pass.



#### Drill set-up

In this drill, we have three stationary handlers, all on a horizontal line. We also have three cup players. Finally there is one popper. (Depending on the number of players, you could also use 0 or 2 poppers.) This popper is positioned somewhere upfield and tries to position himself in one of the holes in the cup.

It's the job of the cup to run in such a way that the handlers cannot throw upfield. They should not allow any holes to open up. It's the job of the handlers to swing the disc back and forth, until they see a hole in the cup. Then they quickly throw through it. It's the job of the popper to always be ready for such a pass. That is, to be in the right position and to be balanced enough to run and catch the pass.

After roughly 10 to 20 passes, players change roles in any way that logically makes sense.

#### Points of attention

- » The most important part of this drill is the cup motion. Give lots of feedback on how the cup is set up, where the holes are, and so on. Freeze the game whenever necessary to indicate points of improvement.
- » Being a popper is very different from being a cutter. A popper shouldn't make fakes at all. After all, there's no one to fake out! Whenever you see a popper running all over the place, ask him to stay balanced more.

#### Advanced extensions

- » When a throw is made through the cup to a popper, many offensive players would immediately try to throw the disc upfield. However, there are usually other defenders blocking these upfield throws. A moment of confusion will ensue, allowing the cup to catch up. For the offense it's often better, after a throw through the cup has been made, to pass the disc horizontally away from the cup. If this is done quickly enough, the cup will not be able to catch up and the offense can safely work the disc up the field.

We can practise this idea and engrain it in the muscle memory of the players if we have two poppers. In this case, we can install the rule that, whenever a pass is made through the cup, the popper that received the disc should immediately pass it to his fellow popper. Only after that do we continue the drill again.

- » You can also allow poppers to enter the cup to receive a short pass. However, doing this only makes sense if you've already treated the "crash" (see drill 32.3). Next to this, you will also need a player on each sideline to call the crash.
  - » As a defender in the cup, you would like to know what's going on behind you. If you do, you can adjust to it. However, if you look behind you, then the thrower can throw past you. The trick here is to look behind you every time the disc is in the air. After all, if the disc is in the air, the thrower cannot throw it past you.
- To teach players to do this, you should continuously remind them. Every time the disc is in the air, you can remind them to check where (among others) the poppers are. After some time, it will become habit.

## 31.4. Trap zone cup motion

### Theory

The main idea behind the confining zone is to prevent upfield passes. The main idea behind the trap zone is to prevent the disc from getting off the sideline. Any horizontal pass across the field should be prevented.

To prevent the disc from getting off the sideline, we use a cup of four players. First of all there is the marker (defender A). His job is to prevent any dump pass backward. (Pass 1 in the figure on the right.) The other three players in the cup prevent the horizontal pass across the field (defender B), the diagonal pass upfield (defender C) and the pass straight upfield (defender D). In this way does the defense shut down all the options of the offense, trapping them on the sideline.

When the offense does manage to get off the sideline, the cup needs to move. In a trap zone we always have the same marker (defender A), forcing toward the sideline. The rest of the cup (B, C and D) acts like a wall. When the disc goes to the other sideline, the whole wall rotates, preventing any pass off that sideline.

### Drill set-up

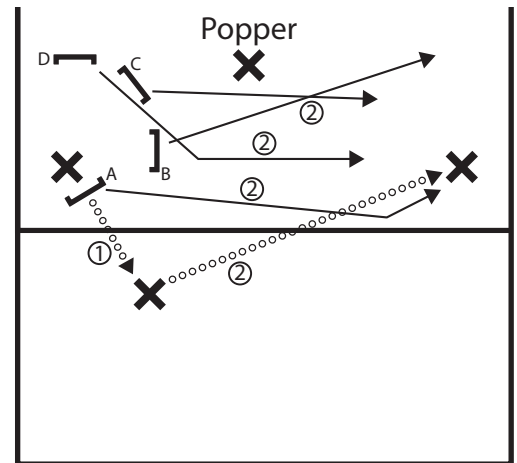
The drill set-up is the same as that of the previous drill (31.3). However, now we have four defenders instead of three. The rest of the drill works exactly the same. After 10 to 20 passes, again rotate in any convenient way.

### Points of attention

- » A common point of improvement for the marker is to be more behind the thrower. Often the marker only forces toward the sideline. In this case, a dump pass backward (pass 1) followed by a swing pass (pass 2) is very easy. This is prevented by having the marker be almost entirely behind the thrower.
- » If the marker does go all the way behind the thrower, then we need someone to shut off the horizontal pass across the field. This is the job of the defender that's positioned right next to the marker (defender B). He is often too far from the marker. It's important that he stays close.
- » Imagine that the disc is swung to the other sideline. The whole cup moves toward that sideline when suddenly the disc is swung back to the initial sideline again. This stops the whole cup dead in their tracks.

To prevent this, the cup (defender B, C and D) needs to rotate while moving. Especially the far player in the cup (player D) needs to move forward quite a bit before closing in on the thrower. (Also see the figure above.) When this isn't happening, encourage throwers to use the hole, or freeze the game to point it out.

- » For the offense, the usual way to break the trap zone is to put one handler behind the thrower. The thrower should then break the mark and get the disc to him. Once he has the disc, he should immediately throw a long pass, all across the field, to the other handler. From there the disc can be moved forward.
- » A question which players are often wondering is, "When should we flip the cup and force the other way?" The answer here is that, whenever possible, you want to keep the disc on the sideline. So if a dump pass



backward (pass 1 in the figure above) is made and the disc isn't swung to the other side, then it's wise to keep the same force. However, when the disc is thrown to the middle of the field, then keeping the same force is useless. In this case it's easier to just flip the force and try to trap the disc on the other sideline.

### ***Advanced extensions***

- » The advanced extensions are the same as in the previous drill (31.3). That is, if you have two poppers you can encourage the poppers to play a horizontal pass after getting the disc. If you've already treated crashes, you can let poppers crash the cup. And you can remind the cup defenders to look behind them every time the disc is up in the air.

#### **Training recap**

When there's a lot of wind, keep your throws flat, fast and especially low. This prevents the wind from affecting it. Also put lots of spin in your throws.

In an outdoor confining zone, there is a three-man cup that prevents throws forward. Whenever this cup moves, it expands, only to contract upon arrival.

In an outdoor trap zone, there is a four-man cup preventing throws off the sideline. There's always the same marker, preventing the dump pass backward. The rest of the cup keeps their formation and prevents all other passes.

To throw a pass through a cup, a thrower should first find a small hole and, with a good fake, make the hole bigger. Only then can he try a quick and low pass through the cup. After throwing through the cup, the best thing the offense can do is to get the disc moving horizontally away from the cup.

## 32. Zone defense - remaining matters

In the previous training, we've discussed the cup in the zone defense. This training will focus on the remaining matters. What do the other players do?

### *Prior knowledge*

It is important that players already more or less know the basic ideas of a zone defense, so make sure you've done training 31 prior to doing this one.

### 32.1. Break the mark with high-low fakes

#### *Theory*

Previously (in drills 29.1 and 31.1) we have discussed low release passes. These passes can also be very useful to break a mark. For a marker, it's hard to get the hands below knee level, so any throw below knee level is hard to stop. If you also fake a high-release throw prior to that, causing the marker to raise his arms, you make it even harder for the marker. This idea, of faking high and throwing low, is called a *high-low fake*.

#### *Drill set-up*

This drill is a simple break the mark drill, just like drill 12.1, except now we encourage throwers to try the high-low fake.

#### *Points of attention*

- » Many players still aren't very comfortable with throwing low release passes. Very often players still release the disc above knee height. They (subconsciously) still don't realize the advantages which a lower release can offer them. If you see this happening, encourage these players to release the disc below knee height. Also ask the receiver of the throw to give feedback: was the throw released below knee height?
- » For the marker to block low release throws, it's important to be low. And being low should be done from the knees, not from the waist! If the marker bends over, he's only immobilizing himself. In this case, tell him to keep his upper body (near-)vertical, and to get his upper legs (near-)horizontal.
- » Pay attention to both the forehand and the backhand throw of the players. It often occurs that a player is perfectly capable of releasing the backhand low, but not the forehand, or the other way around.

#### *Advanced extensions*

- » When the thrower is applying low release throws, the marker can try to do footblocks. Guidelines for applying footblocks have already been given in drill 8.1.

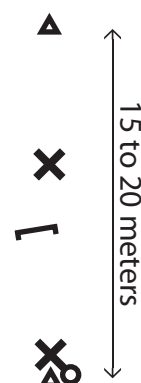
### 32.2. Eyes in the back

#### *Theory*

In a zone defense, when you're not in the cup, you're defending a region. It's your job to stay in front of any offensive player that's in your region. But at the same time, you also have to keep looking at the disc, so that you can block it in case it's thrown to your region. Doing both these things simultaneously is a hard skill to learn. With this drill we'll practise doing so.

#### *Drill set-up*

This drill is done in groups of three. We also have two cones, 15 to 20 meters apart. At one of these cones we have a thrower. The other two players - one offensive runner and one defender - are in-between the cones, with the defender 2-3 meters in front of the runner.





During this drill, both the runner and the defender stay on (or near) the line. The runner will jog at a slow pace back and forth, turning around whenever he likes. The defender should make sure to always stay in front of him. However, he should also make sure not to be more than 4 or 5 meters away from the runner.

Keep in mind that, during this drill, the defender should always be facing the thrower. To encourage this, the thrower is allowed to throw the disc toward the defender at any time. *This throw has to be on waist height though, for obvious safety reasons.* If the defender gets the disc, he should simply throw it back to the thrower.

### ***Points of attention***

- » The strategy for the defender is to first turn a little bit - say, ten to twenty degrees - toward the runner. He still looks at the thrower most of the time, but roughly once per second he should make a very quick and small swivel of his head, looking only from the corner of his eye where the runner is positioned. In this way (and possibly by listening for footsteps) does he keep track of where the runner is.

This skill is very hard to master and can only be learned through tons of experience. It does help a lot if you give players feedback. “Turn a little bit less initially.” “Make more and faster swivels.” “Make your swivels a bit smaller.” Those sorts of things.

- » It may happen that the thrower decides to throw the disc around the defender to the runner. This is not the purpose of the drill. In fact, the purpose of the thrower is mainly to keep the defender focused on the disc. So if you see this happening, remind the thrower of his job in this drill.
- » Defenders have the tendency to always look over the same shoulder. However, good defenders can look over either shoulder, from the corner of either eye. It’s worthwhile to practise this, so halfway through the drill you can tell players to start looking over their other shoulder.

### ***Advanced extensions***

- » (*This is a very important extension, and I’d advise you to apply it right after you have done this drill for a couple of minutes.*) Staying in front of someone is a lot easier if you have someone coaching you - telling you when to go forward (“go”) or backward (“back”). In a match, this is a job for the sideline players! In this drill, we can just add a fourth person that coaches the defender by continuously saying “go” or “back”.

By adjusting the drill like this, we don’t only practise defending while being coached. We also practise the sideline coaching itself! This is a very difficult but often overlooked skill. Key points here are to talk as much as possible - saying something five times is better than saying it just once - and to use talking speed/pitch to indicate urgency. As a trainer, don’t forget to give feedback to the sideline coaches too.

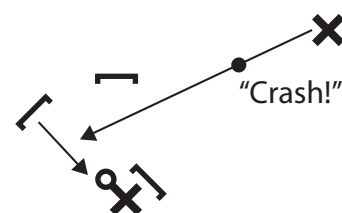
- » If defenders are getting good at this drill, you can make it harder by replacing “the line” for a rectangle of 8 meters wide. Now the defender also needs to move left and right and use the corners of both eyes to keep track of the runner. Note that sideline coaches can now also use “left” and “right” as keywords.

## **32.3. Crashing**

### ***Theory***

Imagine that we’re playing a zone defense and we’ve just set up a very strong cup around the thrower. He can’t throw any pass. The stall count is getting high. Then suddenly an offensive player runs into the cup, gets a short pass and immediately dumps the disc back to the thrower. This resets the stall count, so for the offense this is very convenient. As defense, we really want to prevent this happening.

The solution here is that we have a sideline player watching out for this. If he sees an offensive player that is going to run into the cup, he should yell “crash!” (See the figure on the right.) At this signal, the person in the cup that’s furthest from the marker will run to the thrower and set up a second mark. As long as this defender is within three meters of the incoming runner, this is perfectly legal! Do note that, when the runner clears out again,



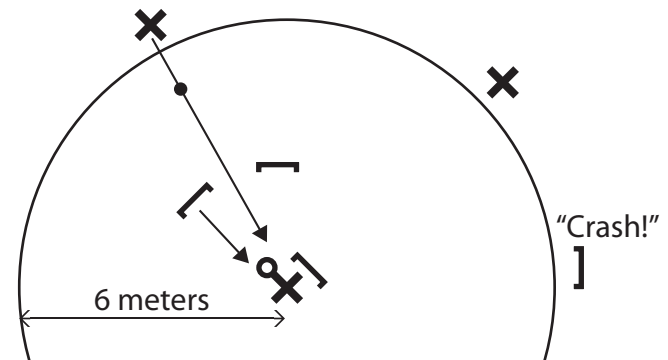


this second marker should also go back off again. Otherwise the thrower may call “Double Team”.

### ***Drill set-up***

This drill is done in groups of seven players. We have a thrower with a cup of three defenders around him. We also have a sideline player, somewhere on the side. Finally, we have two runners. These runners are jogging around the thrower in a circle of at least 6 meters radius. (See the figure.)

At a certain moment (roughly once every eight seconds) a runner moves toward the cup. The sideline player sees this coming and calls a crash. If the crash is performed well, the thrower cannot throw the disc. The runner clears out and the “second marker” falls back. If the throw is made, then the runner tries to dump the disc back immediately. The marker tries to prevent this by immediately setting up his mark in-between the two offensive players.



After every eight crash attempts, rotate positions in any way that logically makes sense.

### ***Points of attention***

- » This drill can also be done with six players. The middle player in the cup doesn't do anything in this drill, so in theory he can be left out. However, in a game this middle cup player is present, so players should pretend like he's there anyway. If you have more than seven players, you can also set up a cup of four players and/or have more runners around the thrower.
- » When a runner enters the cup, it often happens that the *cup crusher* - the farthest person in the cup - tries to follow the runner. This is not very effective. It's more effective to confuse the thrower by putting up a second mark.
- » If a defender crashes the cup, he should always be within three meters of another offensive player. If he is not, the thrower should call “Double Team”. It's good to practise doing so in this drill as well! Do note that it's also possible to contest a “Double Team” call. In this case play stops and the situation is dealt with.
- » In this drill, runners often tend to get bored and crash the cup too often. Prevent this. Crashes should come as a surprise to the cup, so try to have roughly one crash every eight seconds.
- » Calling crashes is hard. It takes a full second for the cup to hear and process a crash call, so crash calls should always be made well in advance. Encourage players to do so.

### ***Advanced extensions***

- » In a real match, the cup is regularly moving around. You can add that idea to this drill as well. To do so, execute either drill 31.3 or 31.4, but then also allow the poppers or the middle handler to crash into the cup. In this case, you should of course also add a sideline player to call crashes on either side of the field.

## **32.4. Wings and deep**

### ***Theory***

So far we've treated ...

- » what the handlers do: play the disc around, tiring the cup and trying to find holes.
- » what the cup does: work together to prevent passes in a certain direction.
- » what the two poppers do: try to find the holes in the cup, and when necessary also crash the cup.
- » what the middle defender (if present) does: stay in front of whatever player is in his region.

That still leaves two offensive players and three defensive players. Where are they?

The offense wants to keep the field big. By spreading out, they ensure that there's always someone open up-field. It's therefore wise to put two players, called (offensive) *wings*, near the sideline. A wing basically goes up and down the field. When the disc comes to his sideline, the wing moves in, trying to get the disc. When the disc goes to the other sideline, the wing falls back to look for options deep.

So what do the three remaining defenders do?

- » We have one *deep* that prevents all huck options. This usually means that he stays behind the furthest offensive player.
- » We have two (defensive) *wings*, one on each side of the field. A wing defends the region near his sideline. When the disc comes to the wing's side of the field, he makes sure he stays in front of any player that happens to be around. When the disc goes to the other side of the field, the wing can move more toward the middle of the field, defending a bigger area.

The whole set-up of a field, when the disc is on one side of the field, as well as how the wings and the deep move when the disc goes to the other side of the field, can be seen on the right.

### Drill set-up

To practise the movement of the wings and the deep defender, we only need eight players. These are the three handlers, the two offensive wings, the two defensive wings and the deep defender.

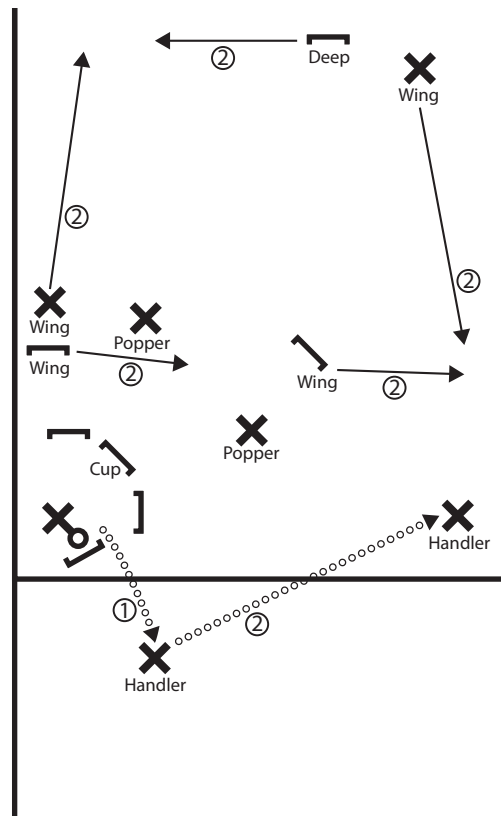
The handlers simply swing the disc back and forth, as if it's a real game. In the meantime, the five upfield players run like they normally would in a match. This is done for 20 passes or so. Then players rotate in any way that logically makes sense.

### Points of attention

- » In this drill, it's initially a bit unclear who needs to do what. Provide plenty of feedback and coaching.
- » The defensive wing is often a bit hesitant to leave his own sideline. Encourage him to move more toward the middle of the field when the disc is not on his side. In fact, he can go as far as he wants, just as long as he can be back in time when the disc does come to his side of the field.
- » The timing of the in-cut of the offensive wings is important. When a handler on the sideline gets the disc, then the offensive wing on that sideline has to get open at that exact moment. If you see that wings are too early or too late in their cutting, give feedback on this.

### Advanced extensions

- » You can add the rule that throws to the offensive wings are allowed, either on an in-cut or on a deep run. These throws should only be done when the wing is open though. The pass should be safe. After a wing receives a pass, he should simply dump the disc back to the handlers and the drill proceeds as usual.
- » If you have an extra player, you can also add a popper to this drill. This popper should (for this drill) stand still in the middle of the field, roughly 15 meters away from the handler line. (Put a cone where the popper is supposed to stand.) It's then the job of the wings to make sure that there's always one defender (the wing on the far side) close to this popper. If there is not, then the handlers can throw the disc to this popper, just like in the previous extension. (The popper then dumps the disc back and the drill proceeds.)
- » To really practise playing the wing/deep positions, you need to apply the zone defense in an actual game.



### Training recap

Low release throws are powerful ways to break the mark. It also helps to apply a *high-low fake*: fake a high release pass and then do a low release throw.

In an Ultimate match, sideline players have an important role. They should coach players on the field on what's going on behind them. Important signal words are "go" (forward), "back" (backward), "left" and "right".

Another signal word is "crash!" This means that an offensive player is about to run into the cup. The cup defender that's the furthest from the marker should set up a second mark, preventing a short and easy pass. When the runner falls back again, so should this defender, or a "Double Team" may be called.

In a zone defense, we also have two (defensive) *wings* that guard the sidelines. When the disc is on a wing's sideline, the wing prevents passes upfield. When the disc goes to the other sideline, the wing moves to the middle of the field to cover more area. Finally, there's a deep defender, preventing all huck options.

## 33. Zone offense

Previously (in trainings 31 and 32) we have seen how to set up two different kinds of zone defense. In this training we'll focus on the zone offense. This is hard, since there are infinitely many types of zone defense and each one requires a different way to beat. In fact, there is no general way to beat a zone defense. Still, every zone defense has a weakness. This training teaches players how to find it and use it.

### *Prior knowledge*

Before you do this training, players should know how to set up a basic zone defense. It is therefore recommended to have done trainings 31 and 32 prior to this training.

### 33.1. Swing passes

#### *Theory*

Imagine you're the middle handler, playing against any kind of zone defense. When you get the disc (pass 1 in the figure on the right), you usually want to swing the disc to the other side (pass 2). There are three good reasons for doing so.

- » You let the cup run, tiring them out. That's why a longer swing pass is better. The cup has to run more.
- » You give the handler on the other side some time to make an upfield pass, before the cup arrives.
- » You can gain some distance forward (upfield).

Especially the latter is important. After all, if you gain roughly 60 meters, you score. But how can you maximize this distance?

First of all, the thrower should throw his swing pass a bit forward. Of course, he shouldn't do this so much that the defense can get to it, but a bit forward is good.

Secondly, the receiver can also apply a trick. He can wait with running to the disc. Then, if the disc nearly reaches him, he sprints forward, jumps up in the air, catches the disc, lands and decelerates. This whole "jumping and decelerating", if done well, can easily gain the team four more meters with every swing pass.

This drill focuses on two things: on the thrower, throwing the long swing pass, and on the receiver, applying the distance gaining trick.

#### *Drill set-up*

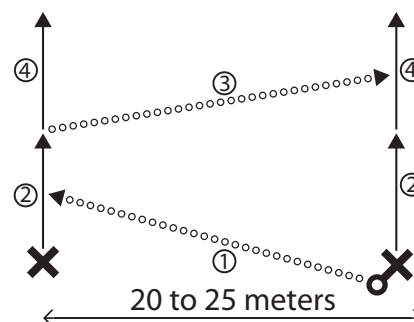
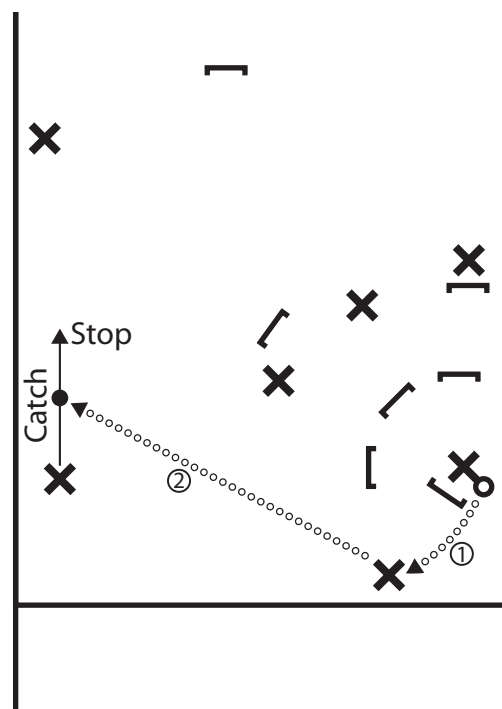
The drill is done in pairs. Each pair has a disc and is positioned 20 to 25 meters apart. One player will throw a long pass, which will float roughly four meters in front of the other. The other catches the disc and tries to gain as much distance doing so, while still following the Ultimate rules.

Keep in mind that passes should arrive flat on head height, so players can jump and catch them. Also, since the cup is trying to catch up, fast passes are preferred above slow passes.

After crossing the field in this fashion, players should jog back and do the drill again with opposite positions.

#### *Points of attention*

- » Players will be tempted to throw the disc much too far forward. This isn't only unrealistic - in a match a defender will get the disc - but it also ruins the pace of the drill. After all, it then only takes a few passes to cross the field. If you see this, ask players to throw passes only four meters in front of their partner.



- » Players should pretend like there's a cup in front of them that's trying to catch up. As such, players should do the correct throw. In the figure on the previous page, pass 1 should be a (right-handed) backhand throw, while pass 3 should be a (right-handed) forehand. Furthermore, players should preferably also step out in the right direction. Throwers should not step out toward their intended target. They should step out away from the (imaginary) cup. By doing so, the cup will be a lot less likely to block the pass.
- » Players might have trouble throwing the long pass, especially if it's against the wind. It helps here if the pass is thrown fast and a bit inside. Fast inside passes are good at "slicing through" the wind.

### ***Advanced extensions***

- » To make this drill more game-like, you can tell players to catch a disc, do an upfield fake and then immediately throw the swing pass. By doing this, you force players to throw the swing pass from a dynamic situation. Players that are only able to throw passes when being "nice and balanced" will have a significant difficulty with this extension, meaning that this extension will be especially useful for them.
- » To make this drill even more game-like, you can also adjust it to incorporate all three handlers. However, now only the middle handler throws swing passes, so the other two players are in a supporting role. Though more game-like, this extension would be less efficient at teaching players the swing pass.

## **33.2. Defending a region**

### ***Theory***

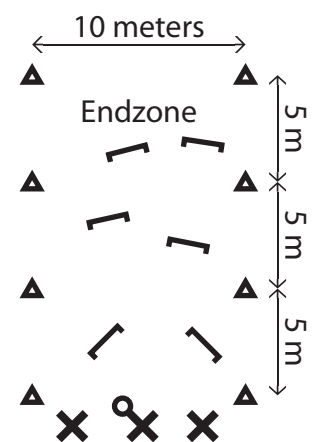
In a zone offense, when you just made it past the cup, you'll find defenders that are all defending a region. Playing against that can be confusing. The good news is that you'll have more offensive than defensive players. If the offensive players set up in the right way, at least one of them should always be open. In other words, if done well, there should always be an easy pass. This easy pass is always worth taking since it keeps the disc moving. In this drill, we'll practise setting up the offense, as well as looking for the easy pass.

### ***Drill set-up***

This drill is done in groups of 7 to 13 players. We have three offensive players. All the remaining players pair up. Each pair defends a rectangle of 5 by 10 meters. They may not leave that rectangle. The last rectangle counts as endzone.

The offensive players have to play their way through the rectangles and score in the endzone. While doing so, they have three "lives". If there's a turnover, they lose a life and have to fall back five meters (one rectangle). The stall count is 6.

When the offense scores or runs out of lives, players will rotate. All defenders move forward one rectangle. The former offense becomes the new defense in the endzone. There will be one offensive player that has to play offense twice.



### ***Points of attention***

- » Players should keep in mind the rules behind the zone offense. If they don't, point out the specific rule.
  - » *If the offense sets up well, there's always an easy pass.* In fact, if all three offensive players are in the same rectangle, one can always get open. Still, players will be tempted to go upfield too quickly. If both runners are already in the next rectangle, there won't be any options and a turnover will ensue.
  - » *If there's an easy pass, you should always just take it.* First of all, it resets the stall count, and when the stall count is only six, this is valuable. Secondly, it also moves the disc, which means that many defenders will suddenly be positioned incorrectly for a brief moment.
  - » *Receivers should always be ready to catch a disc.* Many players are used to cutting. They run around like crazy. But in a zone offense, there's no defender to fake out. Instead, runners should make sure that they're always low and balanced and are always looking toward the disc. If a disc is thrown through a hole in the defense, they should always be ready to change direction and get it.

- » In each rectangle, the defense may agree on a strategy. One possible strategy would be to “always force toward each other”, though other varieties may of course also be used.

### Advanced extensions

- » You can make this drill easier for the offense and harder for the defense by making the rectangles bigger.
- » If the offense is really good at this drill, you can make it harder by removing an offensive player. With only two offensive players, the offense really has to get active to score.

## 33.3. Beating the cup

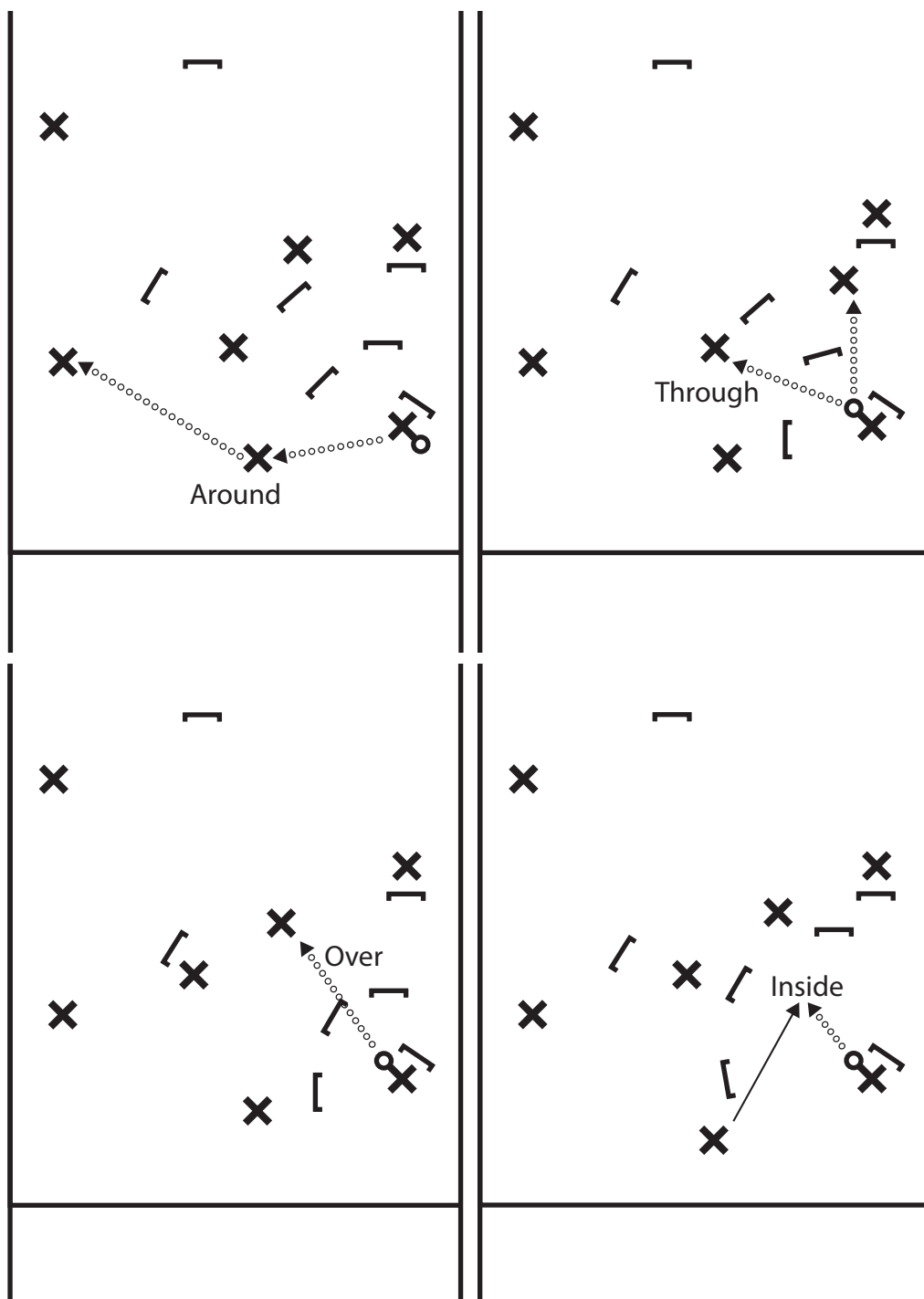
### Theory

There are many ways to set up a zone defense. Every zone defense has a weakness though. In fact, there are generally four ways in which you can beat a zone defense. We'll discuss each of these four ways.

First of all, imagine that the defense sets up a confining zone. They have a very tight cup of three players around the thrower. In this case, the cup only forms a small (yet tight) wall. The best thing the offense can do is go *around* it.

The defense can adjust by letting the cup also try to stop the dump pass. In this case, the three cup defenders are very much spread out. It would be easy to throw a quick pass *through* the cup to an open popper.

To fill up the holes, the defense can add a fourth player to the cup. Now the tight four-man-cup can cover all options without leaving holes. (The trap zone of drill 31.4 is of this type.) The downside is that there are hardly any defenders downfield. If the offense spreads out behind the cup, there should always be a player wide open for a hammer throw *over* the cup. And although a hammer in windy conditions might





not be the most accurate throw, it should be safe to throw a hammer to a receiver that is wide open.

Again, the defense can adjust. What they can do now is make the cup bigger. If the cup is (on average) 8 meters away from the thrower, the cup players can cover a large part of the downfield area too. In this case, the solution would be to have an offensive player go *inside* of the cup. This could be a popper, but then one of the cup defenders can run along to defend him, so it's usually a handler that runs into the cup. And what's more, when a handler runs into the cup with quite some velocity and gets the disc, then by the time that he's slowed down to throw, he will probably have run right through the cup, ready to throw the disc through it.

It's important to remember these four ways (*around, through, over* and *inside*) of beating the cup. Every zone defense can be beaten in at least one of these ways. But how do you know how to beat the zone defense you're facing? The key word is "Analyzing". All players on the field should do so, but the sideline should do so as well! The sideline players of the offense should then call out how to beat the current zone defense.

### ***Drill set-up***

To practise analyzing a zone defense, we play an actual 7 on 7 game. Every time the defense comes up with a creative way of setting up a zone defense. We already know the confining and the trap zone. By varying the size of the cup, as well as the number of players in the cup, we can generate different zone defenses. It's then the job of the offense to figure out how to beat them.

Keep in mind that this drill is about practising playing against a zone defense. If the offense drops the disc, they may simply pick up the disc and play on. After 10 to 20 passes, when it's clear that the offense has figured it out, we cut off the drill, switch offense and defense, discuss a new zone defense and start with another pull.

### ***Points of attention***

- » If you don't have 14 players, you can also do this drill in an adjusted form in a group of 8. Now the offense has three handlers and one popper, while the defense has either four cup players or three cup players and a middle defender. Any extra players can also potentially be used as sideline players, analyzing the game.
- » After every point, discuss with the offense how they analyzed the defense. What did they think was the way to beat the zone? Were they in agreement? And how did the execution go? Could that be improved?

### ***Advanced extensions***

- » Some teams vary (either intentionally or unintentionally) their zone defense during a point. In this case, the offense needs to reanalyze. You can practise this by asking the defense to adjust their zone defense during a point. For example, after ten passes, the cup suddenly becomes a lot bigger or a lot smaller.
- » The best way to practise the zone play is in an actual game. So after this drill, why don't you play a game in which the defense may set up any type of defense they come up with? Encourage teams to experiment.

### **Training recap**

In a zone offense, swinging the disc is very important. It forces the cup to run and it allows you (in various ways) to gain some important distance upfield.

When playing against a zone defense, you can always set up the offense such that someone is open. There should therefore always be an easy pass. In fact, in a zone offense any easy pass is worth taking. It not only resets the stall count but it also moves the disc, causing the defense to briefly be out of position.

There are four ways to beat a zone defense: pass the disc *around, through, over* or *inside* the cup. Always at least one of these options can be used. Figuring out which ones requires analyzing the game. This should be done by on-field players, but the sideline players can definitely help them with this.

## 34. Disc handling and the dominator play

Applying a fast offense with lots of quick passes can be a good way to beat a defense. But to apply it, players need to be able to quickly catch a disc and subsequently throw it. This requires disc handling skills. And that's exactly what we'll be practising here.

### *Prior knowledge*

In this training, we further practise the dump procedure of drill 26.3. Players need to know the main dump procedure. Next to this, they also need to already have reasonable disc handling skills to start with.

### *Extra note*

There are only three drills in this training. This is because these concepts require a lot of practice. To keep things interesting, I recommend you to try out some advanced extensions right away.

### 34.1. Quick throwing

#### *Theory*

For a good handler, only very little time passes between the moment that he catches a disc and the moment that he's ready to throw it. Being able to quickly get a disc in a throwing grip is a sign of good disc handling skills. To practise this, we do a quick throwing drill.

#### *Drill set-up*

This is a basic throwing drill, done in pairs. The distance between pairs is roughly ten meters. One player is the supporting thrower. He only makes accurate passes, on chest height, to his partner. This partner (the other player) then tries to throw the disc back as quickly as possible. After every minute or so, we switch roles.

Note that the word "quickly" here means that the time between catching the disc and releasing the disc should be as brief as possible. It does not mean that the pass should be as fast as possible.

#### *Points of attention*

- » The throws should not be wobbly. If they are, it means that the thrower is trying to throw the disc back so quickly that he doesn't have time to put spin in his throw. In this case, he should take more time.
- » Throws should be accurate. Preferably they should also arrive flat and with an average speed. It's okay if a disc flies off every now and then, but if it happens too often, the thrower should also take more time.

#### *Advanced extensions*

- » If players get a hang of this, and make accurate passes most of the time, you can get rid of the supporting thrower. Now both players try to throw the disc back to each other as quickly as possible. In this case it helps if you occasionally enforce short breaks on the throwers. Otherwise they will start to slow down after a little while, which defeats the purpose of this drill.
- » You can also do this drill in groups of three or four. The players now stand in a triangle/square with sides of ten meters. The extension here is that players may choose who they want to throw the disc to. As a group, they should then minimize the time that the disc is in someone's hands.

### 34.2. Dominator drill

#### *Theory*

Sometimes you see in a match that a particular player gets every second disc. That is, every time he throws

the disc, he runs, he gets the disc back, and this repeats on a high pace. This is called a *dominator* play. Sometimes it's agreed upon. Sometimes it arises spontaneously. The main advantage of the dominator play is that it gets the dominator's defender seriously off-balance. This will result in many powerful options for the offense.

To be able to play such a dominator play, you must have good disc handling skills. You must be able to catch a disc, make a fake, throw and run, all in a short amount of time.

### Drill set-up

Make groups of five or six players. Set out cones, as shown in the figure. At each cone is an offensive player. We also have one offensive player with a disc. His job is to work the disc upfield, getting every second pass. How he does this is entirely up to him. (The figure on the right is just an example.) The only thing that matters is that the disc always keeps moving.

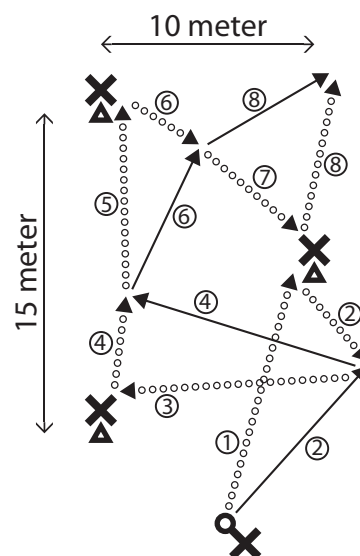
After a player has reached the other side, all players move forward (down-field) one cone. The player at the first cone becomes the new dominator.

### Points of attention

- » Players should imagine that they have a defender with them, so it's good if a player makes a fake one way and then throws the other way.
- » In this drill, players should do lots *throw and goes*: they throw and immediately run. It's even better if they already start moving forward before having released the disc.
- » Passes should always be stable. Wobbly throws have a high risk of turning over, so if you cannot throw stable throws so quickly, you have to slow down a bit. Accurate throws should also be encouraged.

### Advanced extensions

- » When players have done this drill once or twice and they get the idea, you can add a defender. After an execution of this drill, the rotation is that the offensive player runs back to become the new defender. By settings things up like this, we have a tired defender, making the drill still quite easy for the offense.
- » If you want to make the drill harder for the offense, change the rotation (of the previous extension) such that the (former) defender becomes the new dominator player. Now it's the dominator that is still tired. This makes it extra challenging for him to still throw stable and accurate passes all the time.
- » If you want to make this drill even harder for the offense, you can add a second defender that just poaches around. When doing this, you might want to add one or two extra stationary offensive players though, to give the dominator a few extra options.



## 34.3. Dump play

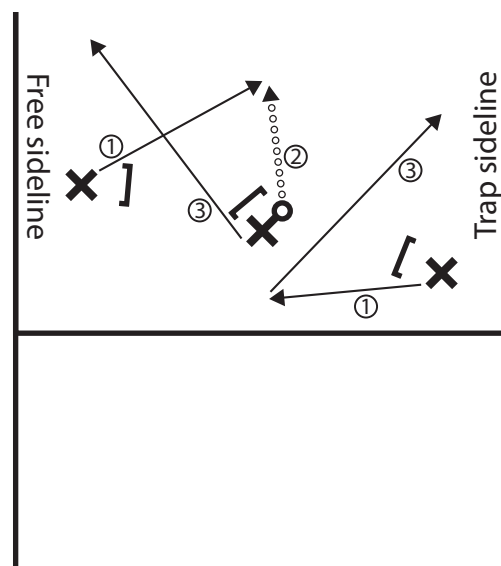
### Theory

Another case where good disc handling skills are convenient is the dump play. We'll be practising it now.

### Drill set-up

This drill is basically the same as drill 26.3, except that now you might want to slowly start adding advanced extensions.

We have three handlers, each with a defender. (See the figure on the right.) There are also sidelines, 37 meters apart. The disc starts in the middle. When the disc is checked in, the thrower looks upfield for three seconds. Then the dumps start running (run 1).



After a dump pass (pass 2), the new thrower looks upfield again for three seconds. In the meantime the new dumps should set up accordingly (run 3). After the three seconds, another dump pass is made. Play continues for roughly ten dump passes. Then we get three new defenders, the defense becomes offense and the offense goes off to evaluate.

### ***Points of attention***

- » Keep in mind the points of attention of drill 26.3. That is, the dumps should not be on a horizontal line, but on a line rotated by roughly 20 degrees. Also, the disc should not be thrown to the trap sideline. If it is thrown there anyway, the original thrower should immediately get busy getting the disc out of there.
- » The handlers should try to keep the field as wide as possible. More horizontal movement of the disc is better. After all, every time the disc moves horizontally, all upfield defenders are briefly out of position.

### ***Advanced extensions***

- » You could slowly start speeding up the game. That is, first you tell players to look upfield for three seconds. Then you make it two, then one, and then handlers should only make a brief fake upfield before dumping the disc. By doing this, you gradually transition your dump play into a handler play.
- » You could add an upfield cutter. This cutter simply positions himself fifteen meters upfield from the handlers. Handlers may decide to throw the disc to him (though not too often). When this happens, all handlers should immediately run upfield, trying to get the disc back. From there, they set up positions again.

### **Training recap**

Being able to quickly throw (release) a disc right after catching it is a sign of good disc handling skills. Practising this regularly will speed up your game.

The strategy where a certain offensive player gets every second pass is called the *dominator play*. It's a very powerful strategy, because it gets the defense seriously off-balance. This will result in many powerful options for the offense.

In a dominator play, when you catch a disc, you should immediately make either a fake or a throw. If you make a fake, try to throw the disc somewhere else. After throwing the disc, you should immediately start running. In fact, you're even faster if you already start moving forward before releasing the disc.

## 35. Man and switch defense finetuning

In this training, we'll further work on our defensive skills. We'll practise both our normal man defense skills, as well as our switch defense skills. Especially the latter is important to practise regularly with your team, since it requires knowing each other well enough to communicate without speaking.

### *Prior knowledge*

It's important that players have already had a training on the basic principles of switching. These have been taught in training 27.

### 35.1. Throwing before the second foot hits the ground

#### *Theory*

Previously (in drill 29.1) we've already practised releasing the disc as far from your pivot foot as possible. This is one way to break the mark. But there's a second method which often works even better.

The key is to throw the disc before your second (non-pivot) foot hits the ground. In fact, you should release the disc just before that foot hits the ground. (This holds for both the backhand and the forehand throw.) We call this a *half pivot*. Next to this, you should also still focus on releasing the disc as far away from your pivot foot as possible - that is, you should throw the disc with an outstretched arm - but this is secondary.

#### *Drill set-up*

This is a basic throwing drill. Throwing is done in pairs. The distance between each pair is ten meters.

#### *Points of attention*

- » You may have players asking why this works. The reason is as follows. When you're stepping out to throw, you're moving away from your marker. Effectively, you're gaining a lead on your marker. As long as you're moving, you're gaining a lead. But as soon as your non-pivot foot hits the ground, you stop moving. Your marker will then be gaining on you! The trick is to release the disc while you're still gaining a lead. It's not about throwing as quickly as possible. It's about releasing the disc just before you stop moving.
- » When players find this drill hard, you can tell them to start with small steps. As things improve, they should gradually make their steps bigger, up to the point where the steps are as big as physically possible.
- » When releasing the disc, the arm of a player should be outstretched. However, when doing this, it's hard to keep the pass stable and flat. The key here is practice. Encourage players to try and get better at it.

#### *Advanced extensions*

- » You can tell players to add a fake before every throw. For example, players can first make a backhand fake and then release a forehand pass as far away from their pivot foot as possible, before their second foot hits the ground. (This trick also works very well in a game, right after you receive the disc. You make a fake one way, to get your marker to overcommit. Then you break him on the other side.)
- » You can set up a break the mark drill, in which you encourage players to try this trick.

### 35.2. Box of death - one on one

#### *Theory*

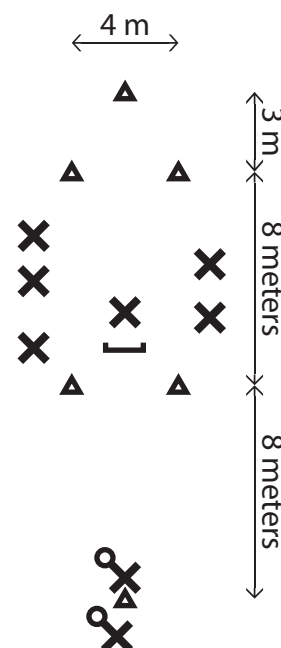
Offensive players usually have two threats. When you're on defense, you always try to take away the most dangerous of these threats. The offensive player then needs to use his least dangerous threat to get the disc. And if you put some pressure on that too, you might just cause a turnover.

## Drill set-up

We're going to practise this in the box of death drill. We've already done it before (see drill 22.4). We make groups of six to ten players. For every group, set out a rectangle of four meters wide and eight meters long. (See the figure on the right.) Also place a cone eight meters in front of the rectangle and a cone three meters past it.

An offensive player and a defensive player will enter the rectangle. The offensive player can score in either of two ways. He can score by getting the disc inside the rectangle on an in-cut, but he can also score by reaching the back cone before his defender leaves the rectangle. This means that he has a lead of more than three meters. In other words, he would be open enough for any potential deep pass. (The deep pass will not be thrown though, to keep the drill running smoothly.)

This drill has a loose rotation. Most players hang around the rectangle, watching the drill. When two players are ready to try this drill, they enter the rectangle. Afterward, the offensive player takes the disc and joins the line of throwers.



## Points of attention

- » Offensive players should either make long cuts, almost as long as the rectangle itself, or make very short cuts of at most one step, in which they mainly rotate their hips and shoulders. Anything else is more likely to get themselves off-balance than their defenders.
- » Defenders should stay low and balanced, so that they're always prepared if the runner suddenly turns around. Furthermore, this drill is fully symmetric, so defenders should simply stay straight in front of the offensive player, without turning too much to one side. By turning to a side, the defender only gives the runner an easy lane to run into to get the disc.

## Advanced extensions

- » A slightly more advanced trick for the defensive player is to use his body to prevent the offensive player from passing him. By keeping his body in-between the offensive player and the disc, and by moving along sideways whenever the offensive player moves sideways, the defensive player can make it very hard for the offensive player to get the disc on an in-cut.

This will quite likely result in a question from your players: when is this a foul? The rules for this are clear. A defender may not prevent the movement of an offensive player with his arms. This would be a defensive foul. Also, a defender may not jump in front of an offensive player such that the offensive player cannot avoid contact. This would also be a defensive foul. (Of course, the words "cannot avoid" can at times be somewhat subjective.) Any other type of contact would be an offensive foul.

- » You can make this drill easier for the offense - and of course harder for the defense - by making the rectangle bigger. Making it wider will allow the offense to more easily pass by the defense. Making it longer will allow the offense to make longer cuts, thus making it more easy to get the defense off-balance.
- » Another variation of this drill is drill 8.5. (For indoor Ultimate, use an endzone of 5 by 12 meters though.) Since this drill is about the defense, you should tell the offense to run as much as possible. This may be contrary to our endzone play, but it does challenge the footwork of the defensive player much more.

## 35.3. Box of death - two on two

### Theory

In a match you're never on your own. There are other players too. First of all, there's a marker. When this marker applies a force one way, it means all the defenders shift a bit to the other side. After all, that's where runners are likely to try and get the disc.

But there are also other players in the field. For the offense this is a disadvantage: they should prevent run-



ning into other players or causing picks. For the defense it's an advantage, since it offers interesting opportunities, like switches. In this drill, we'll practise both not running into each other and applying switches.

### Drill set-up

We again make a rectangle out of cones, but this time it's a bit bigger: 6 by 12 meters. Again, there's a cone 3 meters past the rectangle and one 8 meters in front of it. At the cone we have a thrower with a marker, which applies a force to one side. In the rectangle we have four players: two defenders and two runners. The same rules apply as in the previous drill. Switches are allowed.

Again, like in the previous drill, we have a loose rotation. Players can simply take up whatever position they want. At the start of the point, the offensive players should indicate that they're on offense by raising their hand.

### Points of attention

- » The first thing which the offense can try to do is run in a piston-like fashion, with one player going in and the other going out. With a man defense this is nearly unstoppable.
- » If the defense wants to stop this piston strategy, they should apply switches.
- » If the defense applies switches, then both offensive players can do an in-cut, with one on each side. In this case, the defender that's defending the in-cut should defend the runner that's on the open side, while the deep defender goes after the closed side runner. The offense can now get the disc forward with a break pass to the closed side, but this is a difficult pass, and even if it arrives, the defense can set up the mark right away.

### Advanced extensions

- » You can vary the size of the rectangle. A bigger rectangle makes it harder for the defense, while a smaller rectangle is harder for the defense.
- » You can make a bigger rectangle and play three versus three. In this case the defense should probably apply a strategy in which two players defend the in-cuts and one defends the deep pass.
- » You can add deep passes to the drill. In this case, get rid of the cone at the back. Instead, you install the rule that if a runner leaves the rectangle at the back, the thrower should throw a deep pass.

## 35.4. Two on two cutting with switching

### Theory

Constraining the offense inside a rectangle isn't very game-like. To fix that, we're removing the rectangle.

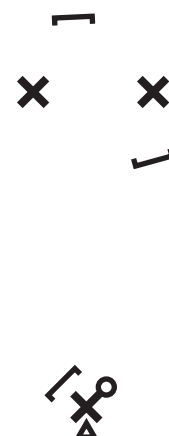
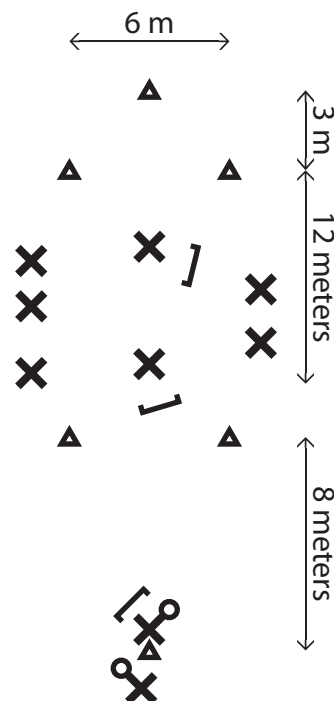
### Drill set-up

We've actually already done this drill before (drill 28.4) so it should be familiar. In the drill, we have a thrower and a marker. Upfield, there are two offensive and two defensive players.

The offense can set up either a horizontal or a vertical stack. They then only have one task: get the disc. The defense has as task to shut the offense down. To do this, they must position themselves in a clever way, make sure they know exactly what is going on in the field, and use switches whenever they seem to be beneficial.

### Points of attention

- » It's important that players realize that we're still applying a man defense. It's certainly not the case that one defender always covers the in-cuts while the other covers the deep



cuts. (That would be a zone defense.) If the offensive players are far apart, no switching is possible and defenders should simply stick with the player they're defending.

- » It is wise if, the first month or two when you're applying switches with your team, players clearly indicate switches. Players should yell out "switch" and point to the player that was originally theirs and which the other needs to take over. Later on, as players get more and more used to applying switches with each other, mere eye contact will suffice. This "silent switch" will also be more powerful as it surprises the defense.
- » The switch defense is very strong, because you can shut off two options with it. One player can cover the in-cuts while the other can cover the deep throw. To do this well, we must have the in-defender always stay in front of any offensive player, while the deep defender always stays behind.
- » A good strategy for offense would be that both runners cut in, one on the open side and one on the closed side. If the in-defender needs to choose which player to defend, it's best if he chooses the runner on the open side. After all, this is the most immediate and most dangerous threat.

### ***Advanced extensions***

- » You can experiment with how close two runners have to be before a switch is possible. If two runners run past each other with twenty meters in-between, a switch won't be possible. If it's two meters, a switch will be possible. Where's the break-even point? What does it depend on? Discuss it with your team.
- » If you're further along in the season, you can train silent switches. Forbid players to call out "switch". Communication is only done through eye contact, nodding, and possibly through gestures like pointing.

### **Training recap**

To break the mark, it helps if you release the disc as soon as possible. In fact, you can release the disc before your second foot hits the ground. If you also throw with an outstretched arm, your throw is nearly impossible to block.

On defense, you should always know which threats the player you're defending is having. Your job is to shut down the most dangerous of these threats, while still being able to put some pressure on the threat that's left open.

If you have a good field sense, you can also let teammates help in shutting down the open threat. Make eye contact and apply switches whenever necessary. Keep in mind that you can never count on switches in advance. If no switch is possible, you should still be able to put pressure on your opponent.

## 36. Defending the handlers

In this training we'll look at how the defense can put some extra pressure on the handlers. If you combine this extra pressure with some solid defense of the upfield runners, you can force lots of turnovers.

### *Prior knowledge*

For this training it's only necessary that players already know the basic dump procedures.

### 36.1. Hand positioning while marking

#### *Theory*

A good handler is always in a ready position. This means that he can throw and release the disc in a split second. This 'split second' is less than the reaction time of the marker. So if the marker wants to block this throw, his hand should already be in the path which the disc would follow. His hand needs to follow the disc!

This idea of 'following the disc with your hand' is an important idea of marking. It's also one which very few players apply. Many players have a marking stance which they're comfortable with. They always apply it. Instead, a good marker adjusts his marking style to the thrower. If the thrower always releases the disc low, the marker should also go low, while high-release throwers require a marking stance with high hands.

#### *Drill set-up*

We're going to practise this in pairs. Each pair consists of one handler with a disc and one marker. The handler sets up a ready position - for example a backhand ready position - and starts to vary the position/height of the disc. In the meantime, the marker follows the disc with his hand. The thrower can also switch to his other ready position. Now the marker follows the disc with his other hand.

When the thrower thinks the marker has his hand in the wrong position, then he can move his hand forward like in a throwing motion. (Although he of course holds on to the disc. Otherwise we'd constantly be fetching discs.) If the thrower manages to smoothly get the disc behind the hand of the marker, the thrower scores. If the marker manages to touch the disc, the marker scores.

The thrower and the marker should switch roughly every minute. Give players freedom in this.

#### *Points of attention*

- » There are lots of details to which we can apply finetuning. First of all, the main principles of marking still apply. The marker should be low through his legs, such that his upper body is still upright. His hands should be wide and low. His hands should also be backward. They should follow the disc from a distance.
- » Some markers mark with bent elbows. It's much better to mark with straight arms. The reach is bigger like this. A marker with bent elbows only needs extra time to extend his arms to block a disc.
- » When marking, it also helps if you spread out your fingers. A hand with fingers spread out has twice the surface area of a hand with fingers held together. So this trick doubles your chance of blocking the disc!
- » Some markers try to block a disc by hitting it from above. This is both slow and ineffective, as hitting a disc from above will often only cause it to float upward. The best way to block a disc is to simply put your hand in front of it, robbing it of its velocity. The second-best alternative is to hit it from below.

#### *Advanced extensions*

- » During this drill, the idea of "scoring" (mentioned at the end of the drill set-up block) doesn't have to be taken so seriously. After all, this drill should be a learning experience. If players get better at this though, then you can take it seriously, to add some competitiveness to the drill.
- » On a higher level, the trick of this drill doesn't work anymore. If you hold your hand still, a good thrower

can quickly adjust his throw to release the disc either above or below your hand. If you are playing on a higher level, then your hand positioning should be different. The key is to move your hand around a lot, and to do so as unpredictably as possible. This *dancing mark* style will, next to driving the thrower mad, also get you a reasonable chance at blocking the disc, and on a higher level that's all you can ever get.

- » The best idea to practise this further is in a break the mark drill, which is exactly what the next drill is.

## 36.2. Break the mark

### Theory

To practise the hand positioning while marking, we are going to do a break the mark drill.

### Drill set-up

The drill set-up is familiar by now. Do the drill in groups of three. See drills 8.1, 8.2 and 12.1 for details.

### Points of attention

- » During this break the mark drill, you can focus extra on the hand positioning. Feel free to stop a group to reposition the hands of a player. Players often appreciate such direct feedback.

### Advanced extensions

- » To finish the hand positioning training, you should check whether players also apply it correctly in a match. To accomplish this, you can set up a small (three on three) game. Whenever you think a player can improve his hand positioning while marking, stop the game and fix things.

## 36.3. Quickly setting up the dump

### Theory

We're now going to do a drill that is important for both the offense and the defense. Imagine that you (player A in the figure) are on offense and you have the disc on the sideline. Your dump (player B) runs up the line (run 1) and you throw him a leading pass (pass 2). The result is that your team gains a couple of meters, but you guys are still trapped on the sideline. You'd want to get out of there.

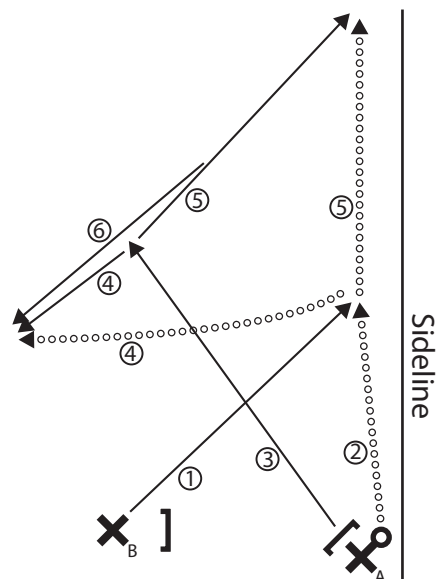
The worst thing you can do is stay around behind the thrower. At that place your defender can easily block dump passes. So as soon as you throw the disc, you want to run upfield to set up the dump (run 3).

Once you get there, you'd like to start the whole dump procedure right away, before the defense has time to become balanced. (And you'd rather get the disc off the line sooner than later.) You have two options, based on what your defender is doing. If your defender is following you at a high pace, you can immediately turn around (run 4) to get a pass off the line (pass 4). The further this pass goes off the line, the better. If your defender is lazy and is trailing behind, you can continue running up the line (run 5) to get the disc there (pass 5).

But there's more. If you do run further upfield and your defender suddenly does start following you, you can also still turn around (run 6) to get the original pass off the line (pass 4). Or, instead of turning around, you can pretend to turn around with a quick jab step and still run upfield (run 5). The possibilities are endless.

### Drill set-up

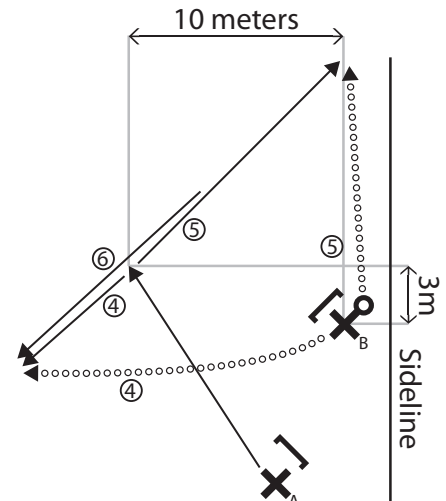
This drill is done in groups of four. The set-up is exactly as in the figure above. First the dump (B) runs up the line to get the disc. His defender lets him get this disc and sets up the mark. The original thrower (A)



then tries to get the disc back. He should do this by either getting the disc off the line, or by getting it upfield. This drill is done in the same set-up three times. Then players change roles in any logical way.

### Points of attention

- » Initially the thrower (player A) might forget to run. Encourage him to run as soon as he releases the disc. The sooner he runs, the more he keeps the defense off-balance and the easier it is to get the dump pass.
- » There is a point where the new dump (player A) stops running for a brief moment to change direction. The position of this point is very important.
  - » The dump (player A) should position himself pretty far (roughly 10 meters) away from the thrower. By doing so, he can run upfield (run 5) without getting the disc from behind.
  - » The dump should only turn around when he's already past the thrower (roughly 3 meters). By doing so, the dump pass backward (pass 4) doesn't cost a lot of upfield distance.
  - » When the dump runs backward (run 4), he shouldn't run straight downfield. He should run a bit away from the thrower. The thrower should then throw a floaty leading pass in front of him. This is a perfectly safe option and it gets the disc off the line while creating opportunities for a subsequent swing pass.
- » When deciding for which option to go (run 4, 5, 6), it's important to pay attention to the defender. Get into his mind. "What does he think I will do? Then I will fake exactly that and do the opposite."



### Advanced extensions

- » You can make this drill continuous. The offense gets as goal to either get the disc more than 10 meters away from the sideline, or to gain more than 30 meters upfield. The defense gets as goal to prevent this. The drill continues until the offense reaches one of its goals or until there is a turnover.
- » Many players have a tendency, when they get the disc, to look upfield for 4-5 seconds. However, when you're trapped on the sideline (like in this drill) that's not good. The best thing you can do is try and get the disc off the sideline right away. To teach players why this is so, you can do this exact same drill, but then tell the new thrower (player B) to look upfield for 4-5 seconds before looking at the dump. Then discuss with player what was easier: getting the disc off the line right away, or after the defense got balanced.

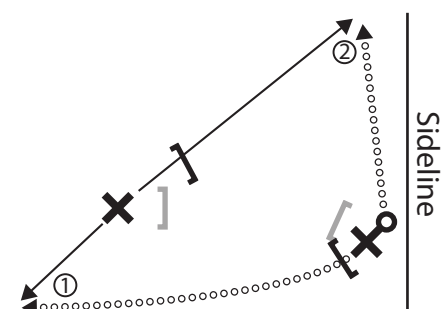
## 36.4. The shift call

### Theory

Imagine that you're on defense. You've got the offense trapped on the sideline and you start to apply some extra pressure. However, at stall count 5 or 6 or so, the offense executes the dump procedure to get off the line and your trap is gone. Is there any way to prevent this?

The answer is yes. Your team can apply a *shift*. This means that the marker shifts his mark to slightly behind the thrower. (See the figure.) By doing so, the marker shuts off the backward dump pass (pass 1). At the same time the dump defender moves a bit more upfield, shutting off the upfield option (run 2). The thrower has nowhere to go.

Of course doing this shift leaves the whole upfield area open for the thrower. The trick therefore is to apply this shift exactly at the moment when the thrower starts focusing on the dump. Usually the marker calls out this shift, like in "... 4, 5 - shift - 6, 7 ..." but well-trained teams can also apply a silent shift call so as not to alert the offense.



### ***Drill set-up***

This drill is done in groups of four. The set-up is exactly as in the figure above. The marker starts stalling at stall count 3. At stall count 5, he calls a shift. It's only at this late point (for the sake of the drill) that the thrower should focus on the dump. The dump should get the disc while the defense should prevent this.

This drill is done in the same set-up three times. Then players change roles in any logical way.

### ***Points of attention***

- » For the marker it's important to shift by exactly the right amount. Shift too little and the around pass backward is still open, but shift too much and the inside pass to the dump is open. If you see a player that leaves one of these options wide open, tell him to shift a bit more/less.
- » The dump defender may think nothing changes for him, but that is not the case. Initially the dump defender had as task to put pressure on both the backward dump (pass 1 in the figure on the previous page) and the forward pass. Now his only job is to shut down the forward pass. When he hears the shift call, he should definitely also shift his position, fully shutting down the upfield option.

### ***Advanced extensions***

- » The amount which the marker has to shift backward is hard to determine. It helps if there is an extra defender on the sideline that coaches the marker in this by calling out “left” and “right”. You can add this sideline player to the drill, both for players to practise sideline coaching and to practise being coached.
- » You can set up a game in which you encourage players to apply the shift. Whenever a shift has been applied, stop the game and give feedback on how it went. What went well? What can be done better?

## **36.5. The strike call**

### ***Theory***

Imagine that you're on defense. The offense is close to the endzone. At some moment you're not paying attention and the runner you're defending beats you to the open side. It's going to be a certain score unless the marker shuts off the open side for a brief moment. This situation is what the *strike* call is for.

When a defender gets badly beaten on the open side, he (or a sideline teammate) can call “strike”. This is the signal for the marker to shut off any throw to the open side for one second. In this second, the defender that got beaten can catch up. Afterward, the marker resumes his normal force.

This strike call should not be used as an excuse for being lazy. It may shut down one option, but it leaves the closed side entirely open, giving the offense a big advantage. That's why it should only be used as a last resort.

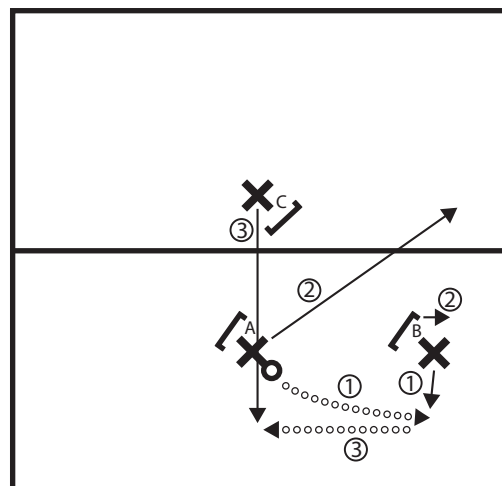
When the offense realizes that a strike is being executed, they should take advantage of it. The closed side is suddenly open, so runners should move to get open there.

### ***Drill set-up***

We're going to practise the strike call in groups of six. (In fact, we've already done this before, at drill 9.4.) We've got two handlers and one runner, each with a defender. (See the figure.)

Imagine the offense is close to the endzone and playing the end-zone play. The disc is with the middle handler. This middle handler (player A) throws the disc to the handler on the open side (pass 1) and immediately runs upfield (run 2) into the endzone. His defender sees what is happening and calls out “strike!” This is the signal for the marker (defender B) to shut off the open side.

When this happens, the runner in the endzone (player C) should





realize that the closed side is wide open. He should run forward to get the disc off the line again.

This drill can be done continuously (without stopping) because, after a single execution, we're automatically back in the format we started from. Only players A and C have switched. After six executions, the drill is stopped and one of the players switches with player B.

### ***Points of attention***

- » A strike call should always be made well in advance. It takes the marker a full second to process it and another second to actually apply it. Defenders should take this into account. The sooner you realize you'll get beaten and call strike, the better.
- » Some players tend to be lazy on defense. Then, when they get beaten, they just call a strike. Remind these players that the strike call is only a last resort. It turns a "massively screwed up" situation into a situation which is just "screwed up". You'd rather have neither. So tell these players to stop being lazy.
- » The timing of the second dump-cut (run 3 in the figure) is crucial. The offense would rather not lose much distance with their dump cuts. As such, this pass should be as late as possible, but not so late that the marker is already moving back.

### ***Advanced extensions***

- » The best way to practise the strike call is in a real game-like situation. You could set up a full endzone play with 8 players (or possibly even all 14). Then, when a situation occurs in which a strike is (or should have been) called, you evaluate with the players what happened and what should have happened.
- » You can also play a real Ultimate game in which you evaluate strike calls with players.

### **Training recap**

When a handler is in a ready position, he can release the disc in a split second. As a marker, you should make sure that your hand is already in the right position to block this pass. Your hand should always follow the disc.

When the offense is trapped on the sideline, it's crucial to get out of there right away. Dumps should set up right away and immediately apply dump cuts.

When the offense doesn't get off the sideline right away, the defense can apply a *shift*. This means that the marker moves behind the thrower, shutting down the backward dump pass, while the dump defender covers the upfield option.

Another defensive call is the *strike*. When a defender gets beaten on the open side, he can call "strike" as a last resort. It's a signal to the marker to cover the open side for one second. This leaves the closed side wide open. A good offense immediately sets up cuts to the closed side to take advantage of this.

## 37. Deep huck and layout training

Having a deep threat is important in any Ultimate game. If the defense fears your deep options, they give you a lot more space on the in-cuts. This makes your game a lot more powerful. Combine this with a few layout saves or perhaps an occasional layout D, and you will score quite a bit more in every game.

### *Prior knowledge*

For this training, it is helpful (though not absolutely necessary) that players have done a training on deep hucks (drills 27.1 and 27.2) and on basic layout techniques (drill 15.5).

### 37.1. Long inside/outside hucks

#### *Theory*

Imagine a defender standing five meters in front of you. You want to throw a deep huck. If you throw it inside, releasing it low, like you normally would throw a deep huck, the defender can block it. The only thing you can now do is throw an outside deep throw. This throw quickly goes up, but also quickly comes down. It's therefore crucial that the throw is accurate. We're going to practise throwing like that through this drill.

#### *Drill set-up*

This is a basic throwing drill, done in pairs. Each pair is roughly 30 meters apart. Players should now throw long passes to each other as if there's a defender 5 meters in front of them. These passes should be outside and should arrive with an angle of at most 45 degrees. Backhands and forehands should be alternated.

#### *Points of attention*

- » Inexperienced throwers often see their throws arrive nearly vertically. There are two reasons why this happens. First of all, these throwers already release their throw strongly outside. Instead, they should release it nearly flat (slightly outside) such that it curves around the (imaginary) defender. Secondly, these throwers should put more spin in their throws. The more spin a disc has, the less it turns outside.
- » If a player doesn't understand the idea of this drill, then stand five meters in front of him and tell him to throw the disc to his partner without allowing you to block the disc. This will make him get the idea.

#### *Advanced extensions*

- » You can also (next to outside throws) add to this drill extremely inside deep hucks that also arrive strongly inside. Again, the goal of the pass is to avoid a defender that's five meters in front of the thrower.
- » If this drill is going well, you can continue to the next drill where players throw at running targets.

### 37.2. Catching inside/outside hucks

#### *Theory*

Now we know how to throw outside deep hucks. Next, we need to train catching them. In a match, you're generally not standing still waiting for the disc. Instead, you're running deep and the disc comes mainly from behind. Still, you have to accurately read the disc and time your run to be at exactly the right place at exactly the right time. This is hard. The best way to get a hang of this is through practice.

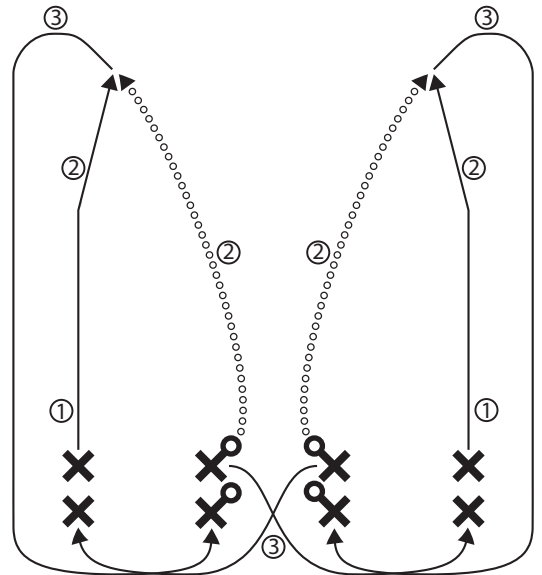
#### *Drill set-up*

We form four lines of players. (See the picture on the next page.) The inner two lines are the throwers. All players in these lines have discs. The outer two lines are the runners. The front players in these lines run deep (run 1), after which they get an outside pass from the adjacent line of throwers (pass 2). Afterward, the run-

ner joins the line of throwers which they got the disc from. The thrower joins the opposite line of runners.

### ***Points of attention***

- » Players should initially run deep (run 1 in the figure). Then, when the disc is thrown, they should read the disc and adjust their path in such a way that they catch the disc as quickly as possible (run 2). Ideally, the path of the runner consists of two straight lines. He should run at full speed, look briefly for the disc, adjust and run at full speed again.  
Instead, beginning players often run in a curve. This is because they constantly look at the disc. Ask these players to “guess” where the disc will land and run there in a straight line before looking at the disc again.
- » Encourage runners to get the disc in their hands as quickly as possible. In other words, they should catch the disc as high as possible, jumping for it if possible.
- » Ideally the runner doesn’t have to wait or slow down to catch the disc. Encourage throwers to throw passes such that the runner can just (barely) get it while running at full speed.



### ***Advanced extensions***

- » Instead of having players only throw outside throws, you can also have players throw strongly inside throws. In this case, make sure that the flight path of the disc still has the same curve. Otherwise players might collide with players from the other half of the field.
- » If this drill is going well, you can add a defender. Now players rotate in pairs. The offensive runner gets a head start of 2 meters on his defender, just like he did in drill 27.5.

## **37.3. Laying out - fragile hands/elbows**

### ***Theory***

Previously (in drill 15.5) we’ve already looked at layouts. In this training, we’ll extend that. In fact, where we’ve previously only done layouts from a stationary position, now we’re going to slowly build our way up to flying layouts. But before we’re going to fly, we first have to thoroughly practise our landing form.

The most common injuries after a layout are wrist, elbow and shoulder injuries. The first trick is to not land on either of these. The problem here is that this goes against human nature. When falling, your natural reaction is to break your fall with your hands and not your chest. After all, the chest contains some vital organs. On stone this natural reaction makes sense. On grass, however, your chest will be able to absorb the impact, so there’s no need to sacrifice your extremities. So with this drill, we want to unlearn our natural reaction.

### ***Drill set-up***

In this drill, we first of all find a place on the field where there’s long soft grass. We then get down on our knees. Next, we slowly fall forward, after which we land on our chest.

The trick here is to not break your fall with your arms. In fact, when you land, there may never (and I mean *never*) be a direct path of force from the ground up to your shoulders. After all, if you would have some more speed, this would break either your wrist, your elbow or your shoulder (collarbone).

Don’t get me wrong. It’s okay if your lower arms are the first parts of your body that hit the ground. In fact, that’s exactly what happens in a good layout. But you should always ask yourself, “what happens when I do this at high speed and the ground pushes back hard?” If the answer is, “All the force shoots up into my shoulder,” then you’re doing it wrong. If the answer is, “My arms are free to rotate upward,” then you’re doing fine.

### ***Points of attention***

- » Some players can do this drill well instantly. Others cannot, even after ten tries. For these players, the trick is to practise on a regular basis. Do this drill for a few minutes after every training.
- » This drill is not the most pleasant drill ever invented. Every landing knocks the breath out of you and hurts a little bit, but the pain will subside soon enough. If players mention that their chest continues to hurt, then you should recommend these players to stop participating in this drill. Their chest pain should disappear within a day or two. If it does not, refer them to a doctor.
- » Depending on the level of your team, not everyone will even be interested in laying out. You therefore might want to consider making this part of the training optional, and providing an alternative for players that don't want to learn to lay out.

### ***Advanced extensions***

- » Every player should try this drill for at least five times, but preferably ten. If players have done this and have gotten the gist of this drill, then you can continue with the next step of the landing form.
- » You can add a disc to this drill. One player holds out the disc, about half a meter above the ground, in front of another player. This player then falls forward from his knees and on his way down grabs the disc. The trick here is to rotate the disc in one hand such that the palms of both hands face down upon landing.

## **37.4. Laying out - the banana form**

### ***Theory***

After the wrist, elbow and shoulder injuries, the most common layout injury is a knee injury. So the second trick, when landing, is not to land on your knees. When landing, your body should be in a banana form. Now we'll briefly practise this banana form.

### ***Drill set-up***

Everyone should lie down on their belly. The feet should be straight backward and the hands should be straight forward. Next, players should enter the banana form: their arms and legs should be fully off the ground. This should be kept up for five seconds. Then there's five seconds of rest. This is repeated ten times.

### ***Points of attention and advanced extensions***

- » To improve your layouts, it helps if you regularly do this drill as well as other similar drills. See attachment C on fitness training for more information on this.

## **37.5. Laying out - fragile knees**

### ***Theory***

We now know the form which we should be in upon landing. It's time to put things together and actually lay out from a stationary position. When laying out, a third trick is to start low and stay low. By doing so, you reduce the impact which you will get upon landing. That's what we'll practise now.

### ***Drill set-up***

We start from a crouched position. Next, we push off forward - not upward - from one leg. This leg should be stretched as soon as possible and remain stretched during our flight and landing. The other (trailing) leg should also remain stretched. We land on our chest, in a banana form, just like we've practised.

### ***Points of attention***

- » Some players will have the tendency to launch themselves upward instead of forward. This will only make the landing more painful. Advise these players to stay closer to the ground.
- » Some players will fall back to their natural habit of breaking their fall with their hands. Advise these players to practise drill 37.3 after each training.
- » Some players will have the habit of landing on one of their knees. This will, some time during their career, probably result in a knee injury. The first thing you can do is encourage these players to keep their legs straight during the layout. If this doesn't work, you can tie a napkin around their knee. Then you should tell these players that their sole purpose during the layout should be to keep the napkin clean. There may be no grass stains on the napkin. Then let the players try the layout again. Most of the times this works.

### ***Advanced extensions***

- » Just like previously (in drill 37.3) you can add a disc to the drill.
- » Almost all players prefer to lay out from one leg. But when laying out in a match, you cannot always plan your steps to jump from your favorite leg. You should be able to lay out from either leg. So encourage players to vary the leg which they push off from in this drill.
- » If players have gotten the hang of this, you can continue with the next drill.

## **37.6. Laying out - flying**

### ***Construction of the slide***

For this drill we're going to build our own slide! We do need some equipment. We need one or more tarpaulins, together 2-4 meters wide and 6-12 meters long. We need stakes to pin the tarps to the ground. We need 5-10 liters of water. We need soap, preferably some kind of baby soap which doesn't hurt the eyes. And finally we might want to add some old mattresses or sleeping bags to put beneath the tarps. These mattresses may get slightly moist, but letting them dry for a day or so easily solves that problem.

To construct the slide, first spread out the old mattresses where the landing site will be. This will generally be two meters further than the place players will jump from. Then put the tarps on top and stake them to the ground. Especially the front should be properly fastened, as that's the part which will be pulled on most upon landing. Make sure not to put any stakes in the area where players will slide, for obvious safety reasons.

Next, spray lots of water onto the slide. Make sure to regularly add water too, as the water will be absorbed by the clothing of players. Also add a bit of soap, but not too much. Now your slip and slide is ready! And yes, you will get wet and soapy during this drill, so don't forget to tell players to bring dry clothes and a towel.

### ***Theory***

Now we know how to jump for a layout and how to land. The next step is to practise jumping while running at full speed. That's what this rather fun drill is for.

### ***Drill set-up***

We'll start by slowly running up to the slide. Before the slide, we lower our center of mass and lay out onto the slides, just like we practised. As we get the hang of this, we can start to run faster and faster. At the end we can do a small contest on who slides the furthest, or makes it to the end of the tarp the fastest.

### ***Points of attention***

- » Make sure that players stick to the principles practised earlier. Players should start low and stay low, keep their arms forward, their legs up and land in a proper banana form.
- » It's fun to take pictures, so don't forget to bring a camera. And don't keep it in your pocket during a layout.

### *Advanced extensions*

- » Just like in drills 37.3 and 37.5, you can have someone hold up a disc, which the runner can then catch. The player should hold the disc at about half a meter height, and roughly two meters past the point which the runner will jump from. Again, it's important for the runner to rotate the disc before landing.
- » If the previous advanced extension goes well, you can lay out after flying (thrown) discs. This does require good throwers that can put the disc in the air right above the slide. The best way to do this is to have the thrower positioned diagonally behind the runner. He should then throw upwind, such that the disc floats low in the air. Do make sure to tell players that they don't have to catch the disc if it is not thrown properly. After all, we wouldn't want players to lay out on top of a metal stake.
- » For advanced players, you can have someone hold the disc at a variety of heights and angles. For example, you can simulate a hammer throw that comes in almost vertically. Catching these kinds of discs might require different kinds of layouts, such as layouts in which you land on the back of your shoulder and subsequently roll onto your back while sliding. The main idea here is: try out whatever seems fun and safe.
- » If you ever have a warm but very rainy summer day, you can practise laying out without a homemade slide. You'll lay out on the wet grass instead. This is a reasonably safe and not too painful way of practising layouts which more resemble the actual layouts of a real Ultimate match.

#### **Training recap**

Deep hucks are preferably thrown inside. But when there's a defender in front of the thrower, he might have to throw an outside deep huck. Such a throw should be timed well by the thrower and read well by the runner.

When laying out, there are a few tricks to adhere to. You should preferably start low and stay low. You should land in a banana form such that your knees don't touch the ground. Finally, there should *never* be a direct path of force from the ground up to your shoulders. Instead, you should land on your arms such that, if more force is put on them, they are free to rotate upward.



## 38. Defensive intensity training

We're getting close to the end of the season. We know how to defend. It's time to put all the defensive things together. Which options do we shut down? Which do we give? And how do we put intensity into our defense?

### *Prior knowledge*

No real prior knowledge is required for this training. Okay, players should know the dump procedure to get a disc off the line, but that's all. This late in the season, that shouldn't be a problem.

### 38.1. Intense man defense drill

#### *Theory*

A good defense knows exactly which options they shut down and which they give away. A great defense also manages to put real pressure on the options which they give away, and get the defensive block any time the throw is slightly imperfect. This skill of putting pressure on the offense is what turns matches around.

To practise this defensive intensity, we're going to introduce the idea of "push-up points" in this training. Push-up points are points which you can earn during the training by messing up. They have to be redeemed at the end of each drill. A push-up point may also be exchanged for two sit-up points.

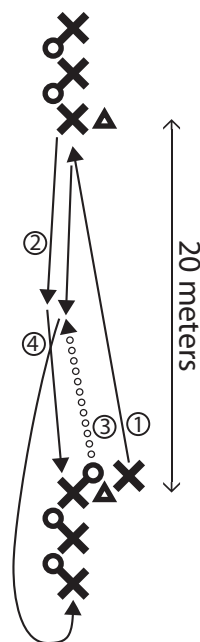
#### *Drill set-up*

We're going to practise defensive intensity with this throwing and running drill. It's done in groups of 6-12 players. We split each group up into two lines of players, about twenty meters apart. All players have a disc, except for the front player of each line.

At the start, the front player of one line (the offense) runs to the other side (run 1). Here, the other player (the defense) stands ready, holding out his hand. When the offensive player hits the defensive player's hand, both players run to the other line (run 2) to get the disc (pass 3). The offense needs to catch this disc. The defense needs to prevent this.

As to rotation (run 4): the offense keeps his disc and joins the line he originally came from. The thrower becomes the new defender and holds out his hand. The defender becomes the new offensive runner and runs to the (former) thrower to tap his hand.

To encourage players to do this drill intensely, the defense gets two push-up points if the offense wins. The offense cannot get push-up points. After all, this drill is about defense.



#### *Points of attention*

- » In this drill, when the defender wins, it's often not because he blocked the disc. It's because he forced the offensive player to run into the disc so uncomfortably fast that he couldn't properly catch the disc anymore. This is something you can tell players when you see them give up because they "can't get the disc".
- » It may happen that the feet of the two runners hit each other. This is (usually) a defensive foul. It happens because the defender gets in the path of the offensive runner. The trick for the defender is to try to get next to the offensive runner. The only body part that should enter the path of the runner is the defender's arm, and this should only happen briefly, to block the disc.

#### *Advanced extensions*

- » You can encourage the defense to lay out for discs. However, only do this if players already know how to lay out. After all, laying out on offense for a gently floating disc is hard, but laying out on defense, when there's an offensive runner nearby, is a lot harder, as well as more dangerous.

When laying out to get the defensive block, the trick again is to not lay out toward the disc. Then you'll

crash into the runner. You should aim your layout to be right next to the runner. The only body part that should enter the path of the runner is your arm, and this may only happen briefly, to block the disc.

## 38.2. Shutting off the dump

### Theory

Imagine you're on defense. A teammate has the disc trapped on the sideline and you're defending the dump. Your primary responsibility is to prevent the dump from getting the disc up the line. After all, this would give him a powerful position to huck the disc. At the same time, it's the primary responsibility of the marker to prevent the (around) dump pass to the middle of the field. But of course you, as the dump defender, should also put some pressure on this option. We're going to practise this scenario in this dump defense drill.

### Drill set-up

We have one thrower with a marker, trapped on the line, as well as one dump with a defender, somewhere near the middle of the field. (See the figure.) The thrower will look upfield up to stall count 3. Then he can turn to the dump.

If the dump manages to get the disc up the line (option 1), the dump defender gets 6 push-up points. If the dump manages to get the disc near the middle of the field, both defenders get 3 push-up points. If there is a turn, or if the dump gets the disc in the forbidden region near the line, then no push-up points are awarded. After all, getting the disc in the forbidden region isn't exactly an advantage for the offense. They're still stuck.

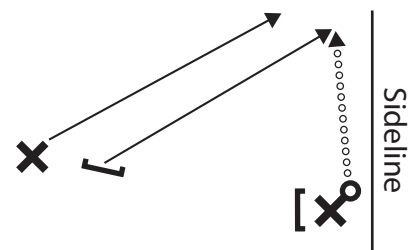
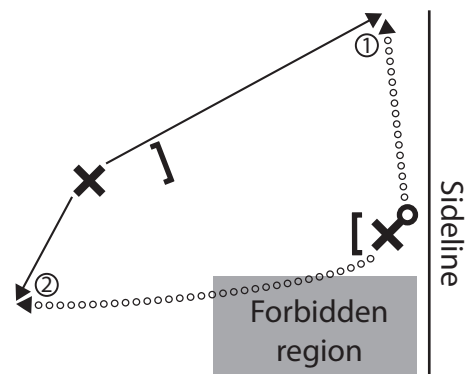
This drill is done three times in the same set-up. Then players rotate roles in any way that makes sense.

### Points of attention

- » In this drill, you can ask the dump defender to experiment with various ways to position and orient himself. One way, which is often used in high-level play, is that the dump is already facing upfield. (See the figure on the right.) The main advantage of this is that, when the dump runs upfield, the defender doesn't have to turn around to follow, thus saving time. Next to this, it also allows him to look upfield, giving him a better field sense. This method might feel uncomfortable at first, but it's useful to experiment with it.
- » The defense can also apply the shift (either called out loud or just agreed on silently) of drill 36.4. If you want to encourage this, allow the defense some time to agree on a strategy before setting up.
- » It's nice to loudly call out when push-up points are given. "And that's six push-up points for John!" By doing this, next to adding to the fun atmosphere, you make it clear to the respective player that he got beaten. This encourages him to change his play to not get beaten again.

### Advanced extensions

- » Depending on what kind of behavior you want to see in your team, you can vary the amount of push-up points given for each event. Is your team setting up sloppy marks, allowing the opponent to easily get the disc off the line? Then you might want to increase the number of push-up points given to a broken mark.



### 38.3. Trade-offs in cutter defense

#### *Theory*

Imagine you're defending a cutter. If you're always trailing him, then he can get the disc both in and deep. It's better if you decide which of these two options you really want to shut down. Usually, it's wisest to shut down the deep option. But if there's lots of wind, or the team doesn't have good deep throwers, then it may be better to shut down the in-cut. With this drill, we're going to practise this trade-off.

#### *Drill set-up*

We have one thrower with a marker, which is forcing to one side. Upfield we have a runner with a defender. It's the job of this runner to get the disc before stall count 10. It's the job of the defender to prevent this. When the runner manages to get the disc, push-up points are awarded.

- » Part 1: During the first part of this drill, catching the disc on an in-cut means the upfield defender gets 3 push-up points. Catching the disc deep gives him 6 push-up points.
- » Part 2: During the second part, things are reversed. In-cuts are now 6 points and deep throws 3.

Next to the cutter defender, also the marker can earn push-up points. Any break pass that's caught gives him 6 points. If the disc is dropped, or if there is a stall-out, no push-up points are given at all.

As to the rotation: the thrower becomes the marker, the marker becomes the upfield defender, the upfield defender becomes the runner and the runner either subs out (if players are waiting) or becomes the thrower.

#### *Points of attention*

- » The idea of this drill is that players start thinking, "What do I really want to shut down?" and then adjust their defensive style accordingly. If players do this, the drill is going well. If they don't, then encourage the offense to fake the option with the least push-up points and then take the option with the most.
- » In a match, players need to choose themselves which option to shut down and which to give. You can discuss with your players what that decision depends on. Answer can include "The speed of the runner", "The quality of the throwers", "The weather", "The position of other players", "The stall count", and so on.

#### *Advanced extensions*

- » Just like in the previous drill, you can vary the amount of push-up points given, based on the behavior you want to see in your team. If for example your team is having the problem of always being beaten deep, increase the amount of push-up points rewarded to a successful deep pass.
- » You can also do this drill with two upfield runners, such that the defenders can practise their switching.

### 38.4. Game with defensive push-up points

#### *Theory*

It's time to apply the things we've practised in a real game. We're going to play an Ultimate game in which the defense can earn push-up points if they mess up their responsibilities.

#### *Drill set-up*

The team simply plays a game. The sideline players keep their eyes open for any of the following things.

- » A successful break pass into the space which the marker should have shut down: 6 points for the marker.
- » A dump that successfully gets an up-the-line pass: 6 points for the dump defender.
- » A successful deep pass to a runner: 6 points for his defender.
- » A runner that successfully gets the disc on an in-cut, while being more than five meters ahead of his de-

fender: 6 points for his defender.

If the sideline players notice something happening, they call this out right away, “6 points for John!” Players are responsible for remembering how many points they’ve been given. Points can be redeemed between points or after the entire match.

### ***Points of attention***

- » The goal of this drill is twofold. First, players should start to think about which options they really need to shut down. Secondly, players should do all they can to really shut down these options. If players keep getting beaten in the same way, and keep accumulating push-up points, discuss with them how they can change their playing style to prevent this from happening again.

### ***Advanced extensions***

- » Again, you can vary the number of push-up points given to each event, or add events yourself. Alternatively, you can also give negative push-up points to defenders if they make a successful defensive block.

### **Training recap**

On defense, you always have to know which option you shut down and which option you give away. In addition, you should still be able to put some pressure on the option which you give away, if the throw is a bit off. Being able to do this well will get your team a lot of extra discs, which you can then convert.

## 39. Offensive safety training

In trainings you often try stuff out, and that's good. It's how you learn. But when the tournament time comes, that has to end. You should only throw the passes of which you are pretty sure they're safe. Doing this requires a certain "safe" mindset though. With this training, we try to get into this safe mindset.

### *Prior knowledge*

For this training players only need to know the basic offensive strategies, like the horizontal stack (training 6) and the endzone play (training 9).

### 39.1. Fake and run drill

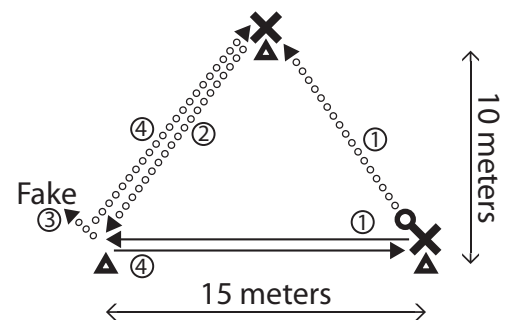
#### *Theory*

When you get the disc, the first thing you should do is make a fake. (Or throw, if there actually is an option.) This keeps your marker off-balance. If your marker overcommits, and flies past you to block your fake, then you can throw the disc in the other direction and run there, again keeping a lead on your defender.

#### *Drill set-up*

We're going to practise this with the rather tiring fake and run drill. It's done in pairs. First, make a triangle out of cones. (See the figure on the right.) The player at the top cone is stationary. He doesn't move. The other player has to run a lot though.

The runner throws the disc to the stationary thrower (pass 1) and immediately runs to the other cone (run 1) to get the disc back (pass 2). There, he makes a fake ("pass" 3), turns around, throws the disc to his teammate (pass 4) and runs back to the other cone (run 4), only to do the same there. The runner keeps doing this for 45 seconds. (Time is kept centrally by the trainer.) Then players switch roles. This whole thing is repeated three times.



#### *Points of attention*

- » It's important that players make the right fake and throw. For example, for a right-handed thrower, fake 3 should be a backhand fake, while pass 4 should be a forehand throw.
- » If players don't get the idea behind this drill, it helps if you run along with them as if you're a defender. Every time the runner has to fake out the defender (you) and then pass the disc back to their teammate.
- » The sooner a player runs after a throw, the better. In fact, it's best if the runner is already moving forward while he is still making his throwing motion. This is perfectly legal, as long as he keeps his pivot foot on the ground during his throwing motion.

#### *Advanced extensions*

- » Doing a "throw and run" is easy when throwing a backhand pass. In this case, by lifting the upper part of your non-pivot leg, you can already get quite some forward speed before your pivot foot leaves the ground. However, this is a lot harder for a forehand throw. In this case, it might be easier to apply a lefty backhand pass instead. So, in the figure above, pass 1 should be a righty backhand, while pass 4 is a lefty.
- » In a real match, when you're on offense, you generally move upfield. We can add that to this drill too. In this case, the stationary player isn't so stationary anymore. In fact, he's backpedalling. At the same time, the runner is not moving horizontally left and right anymore. Instead, he's diagonally moving forward.

## 39.2. Only throw to open players

### Theory

When you have the disc, it's your responsibility that this disc safely makes it to another player. If you throw to someone that isn't fully open, it's your fault if there is a turnover. The conclusion? You should only throw to open players.

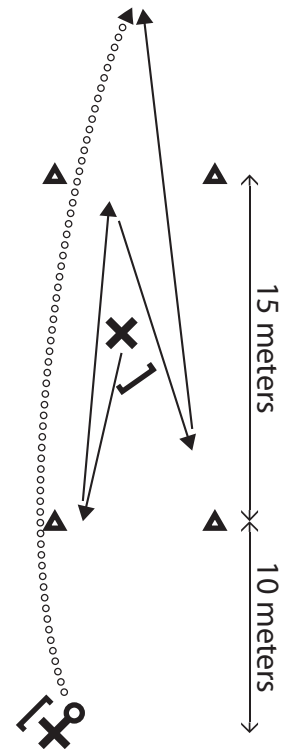
### Drill set-up

We're going to practise this in groups of four. We have one thrower, one marker, one runner and one defender. We also have two lines, positioned 10 and 25 meters away from the thrower. The runner is going to run back and forth between these lines until the thrower considers him open enough to safely throw the disc to. Then the runner may leave this area between the lines to catch the disc.

If there is a turnover, then the runner is awarded 3 push-up points while the thrower gets 9. After all, it's the responsibility of the thrower that his passes can be caught.

By the way, there is no stall count in this drill. If the thrower feels like the runner needs to run back and forth for half a minute before he throws the disc, then the runner just has to run back and forth for half a minute.

As to the rotation: the thrower becomes the marker, the marker becomes the defender, the defender becomes the runner and the runner becomes the thrower.



### Points of attention

- » You can subtly ask the defender: what would be more risky? A pass to an in-cut or a deep pass? The chance of a turn is maximized if the defender blocks the in-cut while putting pressure on the deep pass.
- » The goal of this drill isn't only to teach the thrower to throw safe passes. It's also to teach the runner to just continue running. During a real match, there are often moments later on in the match when the offense stagnates. This is because the runners get tired and stop running. This drill should teach them that the defense gets tired too. So if they just continue to run, they will eventually get open.
- » If the runner sees that the marker is nearly forcing straight, and is trying to cover the deep threat like this, he can also run to the closed side for an around pass. This should force markers to put up an honest mark.

### Advanced extensions

- » Instead of having one thrower, you can also set up two handlers that occasionally dump the disc to each other. Now both the upfield runner and defender need to react to a disc that changes position.
- » Alternatively, you can also continue to the next drill (39.3), which adds a potential poach.

## 39.3. Watch out for poaches

### Theory

When you're throwing to a teammate, you should of course make sure that that teammate has a lead on his defender. However, you should also keep an eye out for other players that are *poaching* for the disc.

What is poaching? Imagine you're on defense and you think the player you're defending will not get the disc. In this case, you can partly ignore him to try to get in the way of other options. This is called poaching.

Now imagine that you see a runner that is about to get open. In this case there are two ways of poaching.

- » You can do an *open poach* in which you move so much that it's clear to the thrower that he shouldn't throw the pass. In this way do you prevent the pass, putting some more pressure on the thrower.



- » You can also do a *hidden poach* in which you don't move so much, hoping that the thrower still throws the disc. When he does, you're busting forward, just in time to get the defensive block.

There's no general rule on which style of poaching is better. It all depends on the situation.

Now imagine that you're on offense. You're running, and all of a sudden you have two defenders with you. Someone is poaching on you. Should you change your running direction? The answer here is no. What happened is that you made such a dangerous cut, that one of the other defenders felt like he needed to help out. That's good! So keep doing what you're doing and trust that your teammate without defender will get open.

But what if you're poached on? If you notice that your defender left you behind, it's time to get moving. You need to get open. The easiest way to do this is to run away from your defender to get a pass there.

### **Drill set-up**

This drill is essentially the same as the previous drill (39.2) except now we add a cone, an offensive player and a defensive player. (See the figure.)

The offensive player has to stand still, just like the sideline player in a horizontal stack is. In the meantime, the runner and the defender do what they did in the previous drill. They run back and forth until there's an opening.

If the runner manages to get open, for example on a deep run (run 1), then the extra defender can help his teammate out (run 2). However, if this happens - if this defender is more than 5 meters away from his offensive player - then this offensive player is allowed to move. He can run away from his defender (run 3) to get an easy pass (pass 4).

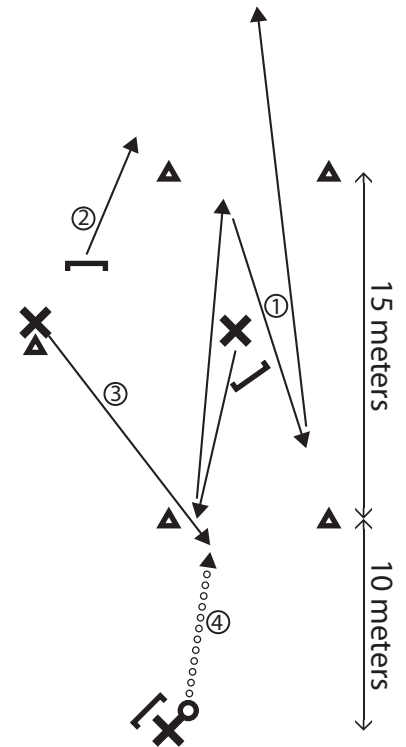
In this drill, the thrower has to see whether an option is open or whether it's poached on. When it's open, the thrower can throw the disc. If there is a turnover, then the thrower gets 9 push-up points. The runner whom the disc was thrown to gets 3 push-up points.

### **Points of attention**

- » Ideally, the stationary runner in this drill runs off at the exact moment that his defender leaves him. After all, this is the moment when the defender is looking elsewhere, so by the time he looks back at his own runner, the runner is long gone.
- » When a player notices that he's being poached on, he can also call out "poach!" This is a signal to the thrower saying two things: "Be careful. There might be a defender where you don't expect it." and "I'm open if you need me." Next to this, calling "poach!" often also helps to stop your defender from poaching.
- » Especially when throwing deep hucks to a runner, it's important for the thrower to check if the runner has passed all defenders on his way deep. If he has, the thrower can safely throw the deep huck. If not, and if the thrower notices that there is a defender poaching on the long throw, he can fake a deep huck. This usually gets the poaching defender off-balance, allowing his runner to get open on an in-cut.

### **Advanced extensions**

- » Just like in the previous drill (39.2), you can add another handler to this drill.
- » You can also add two more runners to this drill, so that you really have a horizontal stack. In this case, the pair of players that gets the disc leaves the drill and is replaced by the thrower/marker.
- » Instead of a horizontal stack, you can also set up a vertical stack. Initially, only one offensive player may run. The other players may run only when their defensive player starts poaching. Although in this case it might be wise to agree with the defense on who will poach, to prevent that everyone starts poaching.



## 39.4. Endzone play

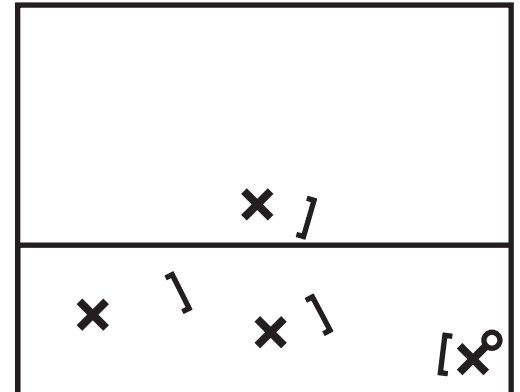
### Theory

The place where it's most important to be careful with the disc is near the opponent's endzone. After all, you just made it all the way across the field. It would be a shame if you would throw the disc away now.

### Drill set-up

This drill is done in groups of 8, with 4 offensive and 4 defensive players. For each group we need an endzone. To make this drill a bit harder for the offense, the disc starts on the trap sideline. The offense can set up in any way that they want, though it's strongly recommended to apply the endzone play. Their job is to score the disc, no matter how many passes it takes.

The offense gets six attempts to score the disc. For every turn that occurs, all players in the offensive team get 8 push-up points. After the six attempts, teams change roles and the (former) defense gets six attempts at scoring the disc. This is repeated for as long as there is time.



### Points of attention

- » In this drill, the offense needs to get the disc off the line first. Then they need to set up the basic endzone play. If executed properly, this should result in a simple and safe score. If anything else happens, analyze with the team why this happens and how it can be solved.

### Advanced extensions

- » If the offense is doing really well on this drill, you can make it harder by decreasing the stall count.

## 39.5. Game with offensive push-up points

### Theory

We're going to apply the idea of "safe playing" in a real match. With push-up points, of course.

### Drill set-up

The idea is simple. Every time there is a turnover, the whole offensive team gets 3 push-up points. And what's more: they need to redeem these points immediately. So when there is a turn, the entire offensive team drops down to the ground for 3 push-ups, while the defensive team can pick up the disc and start playing.

### Points of attention

- » Ask yourself how players play differently during this drill than during a normal game. Ideally, players should always be eager to prevent turnovers, so there shouldn't be any difference. If there is, what's the reason behind this difference? Is it a good reason? If not, how can you get rid of it?
- » This drill doesn't only practise safe playing. It also practises transitions. What do both teams do after a turn? The (new) defense should (after their push-ups) make it clear who is defending who and what the force is. The (new) offense should make this as hard as possible by getting the disc moving right away.

### Advanced extensions

- » You can vary the number of push-up points per player based on who caused the turn. If it was a throw-away, you can give more push-up points to the thrower. If it was a drop, you can give more to the receiver.
- » To make things even harder for the offense, you can reduce the stall count to for example 6.

### **Training recap**

In an Ultimate match, it's important to play the disc around safely. It's the responsibility of the thrower that their throws are catchable. He should only throw to a player that has got a lead on his defender and isn't poached on.

Playing the disc around safely is especially important when you get close to the opponent's endzone. Out there, every disc should be converted into a point.

# A. On giving trainings

A good trainer works on many levels. He knows the set-up of the full season, he knows what to do in individual trainings, he knows how to set up a single drill and he knows how to give individual feedback to players. This chapter pays some attention to each of these points.

## A.1. The season plan

### *The season plan of this manual*

The *season plan* says which subjects you treat in which week/training. Setting up a season plan is hard and very team-specific. Of course you can use the season plan from this manual. Simply do all the trainings in the order in which they are given. That's the easy solution.

Do keep in mind that the trainings from this manual follow a regular Dutch season. That is, the first nine trainings (trainings 1 to 9) are outdoor trainings. The next sixteen trainings (trainings 10 to 25) are indoor trainings. The remaining trainings are once more outdoor trainings. Are you following a different season set-up? Then you might want to set up your own season plan accordingly.

### *Setting up your own season plan*

Of course it may happen that the season plan in this manual isn't ideally suited for your team. In that case, feel free to mix up the order of the trainings in this manual. Keep in mind the following pointers while you do so.

- » *Treat fundamentals at the start of the season.* The start of the season usually is the time to get your fundamentals right. This will of course be very important for the new players, but it's also useful for the more experienced players. Advanced strategies can follow later in the season, when players have gotten to know each other a bit better already.
- » *Keep both offense and defense in mind.* Often trainers forget to train for defense. Make sure that, after every few weeks of training offensive strategies, also some defensive skills and strategies are treated.
- » *Plan ahead, but not too far.* Planning ahead is good. Planning too far ahead is not, since you then cannot adjust to unanticipated events. My advice is to plan ahead for roughly one month. Make sure you know exactly what subjects you'll treat in the coming few weeks. After that, it's okay if things get blurry. Furthermore, it's also okay to postpone your schedule an entire week to treat something urgent in-between.
- » *Regularly repeat important subjects during the season.* Some trainers think that, when they treat a strategy (like a horizontal/vertical stack play) at the start of the year, then players will know all its details for the rest of the year. Of course this isn't true. It's very important to regularly repeat important things from earlier in the season.

## A.2. Setting up a training

### *Parts of a training*

A good training always starts with a warming-up. (See the next section for details on how to set up a warming-up.) Next follow several drills. These drills can come in various types.

- » *Techniques/skills.* This mainly concerns throwing and catching technique, but also marking technique, running technique, jumping technique and so on.
- » *Tactics/strategy.* This concerns any agreements between players. Think of stack plays, defensive strategies, dumping plans, etcetera.
- » *Physical.* Think of endurance and strength training. This includes sprint training, push-ups, sit-ups and

all those things that get you really sore the next day.

*Every training should incorporate each of these three parts.* And it should preferably also be in this order. You want to practise techniques at the start, when you're still fresh enough to learn from it. On the other hand, you want to do physical trainings at the end, when you can go all-out without holding back. At the end of the training, players should be tired.

Of course, it's also possible to combine these three aspects in one drill. There are plenty of strategic drills with lots of sprints in it.

The trainings which you find in this manual all aim to apply this basic set-up.

### ***How much of each part?***

So how much do you need of each of those parts? That depends on the type of team.

- » Beginning players need a 50/40/10 distribution. That is, lots of throwing practice, but not so much physical training since the other drills are usually already tiring enough.
- » Medium-level teams need a 30/50/20 distribution.
- » High-level teams, due to the high physical requirements, will tend more to a 20/40/40 distribution.

The introduction trainings in this manual (trainings 1 to 4) are focused on beginning players. The remaining trainings focus on medium-level teams, but can potentially also be used by high-level teams.

### ***Using the trainings in this manual***

When you're giving a training, you need drills. One way to get drills is to just take one training (one chapter) out of this manual and apply it. Every chapter in this manual represents a training of roughly 90 minutes (including the warming-up) and can be given to any group of players that knows the basics of Ultimate, unless mentioned otherwise.

Is your training shorter than 90 minutes? Then you can also split up a training from this manual into two trainings. Give one half on one day and give the other half on the other day. In this case, it is often wise to repeat the most important drill of the first day on the second day as a refresher for your players.

### ***Setting up a training yourself***

If you'd rather not use the trainings as they are set up in this manual, you can also select or invent drills to make your own training. When doing so, it's wise to insert a *common theme*. Announcing this theme to players up-front will create a lot of clarity which increases their motivation.

For every training, also always make sure you have a list of three *learning points* which you want your players to remember. (Two or four learning points might also be okay, but preferably no more than that.) Clearly stress these points during your explanations. At the end of the training, and possibly at the start of the next training, repeat these points. Or better: ask your players to repeat them. This will encourage them to think about the training even after it ended, which makes them remember things better.

### ***Play a game after the training?***

At the end of the training, most teams play an internal Ultimate match. Should your team do so?

- » For beginning players, this is definitely a must. They want to know what it's like to play the game.
- » For medium-level teams, these games are usually good occasions to practise what has just been learned. For example, after practising a zone defense, players need to try out the zone defense in an actual match. That, and it's fun. So a game is most definitely recommended.
- » For very high-level teams, it depends on the type of training. After a normal training with strategical elements, a game is definitely strongly recommended. However, after a track work-out, or after a strength/endurance training, targeting specific muscle groups, then playing a game might not be the best thing to do.

Of course, whether to play a game also depends on the amount of available training time. If you only have one hour of training time, you may occasionally have to skip the game.

### A.3. The warming-up

#### *Why a warming-up?*

A warming-up is very important. It prevents injuries and improves performance.

- » It increases the heart rate and widens capillaries. This enables blood (and consequentially oxygen) to flow more freely through the body.
- » It releases lubricating fluids in the joints, allowing them to move more freely.
- » It increases the temperature of the muscles. This enables them to become more extensible and elastic, as well as increase the speed and force at which they can contract.
- » If done well, it mentally prepares players for whatever tasks lie ahead of them. Do not underestimate the necessity of this! Mental preparation is at least as important as physical preparation.

#### *Properly warming up for training*

First, a disclaimer. There are many ways to get warm. We'll introduce a simple warming-up here that's suitable for just about everyone. But if you've got your own warming-up that works, feel free to stick with that one instead.

An Ultimate warming-up for a training generally consists of three parts. The first part of the warming-up readies players for basic jogging. Do the exercises in the order in which they are mentioned. Intensity is low.

- » *Loosen up all joints.* Do this by kicking loose your legs, rotating your ankles and wrists, flexing your shoulders, twisting your upper body around, rolling your neck over your shoulders, and so on. This is especially important after sitting still for a long time, like after a long car ride. After some initial exercise, like a long walk or a bike trip, this is of course less important and might potentially be skipped altogether.
- » *Small jumps.* Make some small jumps on the spot, only using your ankles. Either jump on both feet (symmetrically) or shift part of your weight between your feet. (This exercise warms up your ankles.)
- » *Jogging.* Yes, now that your joints are loose and your ankles are warm, it's safe to start jogging. Start slowly and increase to an average pace. (This increases your heart rate and blood flow.)

The second part consists of some basic exercises, focusing on individual muscle groups. Feel free to vary with these exercises. Change the order. Skip a few. Add some jogging in-between. Intensity is medium.

- » *Swing arms.* While jogging, swing one arm forward. Then the other. Then do the same swinging them backward. (This loosens up your shoulders and arms.)
- » *Easy skipping.* Kick your legs out and loosely swing your arms. (This further loosens up almost every part of your body.)
- » *Lift knees.* You can do this at a steady pace, or accelerate as you go. (This warms up the hamstrings.)
- » *Lift heels (but-kicks).* You can do this at a steady pace, or accelerate as you go. (This warms up the calves.)
- » *High side-steps.* Swing your arms as you go. At every side-step you should lose contact with the ground. Make sure to regularly switch sides, like after every four steps or so. (This warms up the ankles and the shoulders.)
- » *Cross-steps.* Keep your arms on shoulder level for better balance. Also, make sure you never lose contact with the ground. (If you have a funny hop in your cross-step, you're not rotating your body enough.) Again, make sure to regularly switch sides. (This loosens up and warms up the upper body, like your hips and your shoulders.)
- » *Low side-steps.* Make sure to keep your upper body vertical. To get low, don't bend over but use your legs.



Also make sure to keep your arms wide, as if you're marking. This gets you in a marking mood. (This drill is especially suited to warm up your ankles, calves and hamstrings.)

- » *Backward running (normal)*. (This warms up your ankles and calves.)
- » *Backward running (low)*. Instead of normally running backward, you now make low side-steps in a (slightly diagonal) backward direction. You switch direction after every two steps. So, two low side-steps left-backward, two low side-steps right-backward, and so on. (This warms up your ankles, calves and hamstrings.)

Now that most muscle groups are mostly warm, it's time to crank up the intensity of the warming-up. Do a subset (two or three) of the following exercises to further increase the heart rate. Intensity is high.

- » *Rock-hopping/ice-skating*. Jump diagonally forward and land on one leg. Then jump diagonally in the other direction to the other leg. Continue this. Swing your arms left to right to generate extra sideways momentum. (This prepares your calf muscles and tendons for elastic effects (plyometrics).)
- » *Far skipping*. This is just like your average skipping, but then with every jump as big as possible. (This exercise is ideal for preparing your arms and upper body for sprints.)
- » *High skipping*. This is just like your average skipping, but then with every jump as high as possible. Use your arms to generate extra upwards momentum. (This is ideal for preparing your body for high jumps.)
- » *Brief accelerations*. Start off with normal jogging. Then, on a command, accelerate for five quick steps. Accelerations can be forward, backward, or by turning around and then running forward, like in a cut. (This prepares your calves for quick accelerations, like they often happen in Ultimate.)
- » *Long accelerations*. Slowly accelerate up to a set percentage of your maximum speed. Keep that up for 10 meters and then coast out. For this exercise, start off with calm accelerations (say, 60% of your maximum speed) and then proceed to faster accelerations (up to 90%). (This prepares your body for full speed sprints.)

Now you're ready for doing training drills with the right intensity.

## **Stretching**

Is stretching part of a proper warming-up? Not necessarily. Science has not been able to prove that stretching before exercise has a beneficial effect (or a harmful effect for that matter) on either performance or injury prevention. (Stretching after having done exercise does help with recovery though!) However, keep in mind that some players have stretching as a basic part of their regular warming-up routine. As such, it mentally prepares them and without stretching they might not feel ready. See if you can give these players one or two minutes of time to stretch as they see fit.

Stretching can be split up into two categories. There is *static stretching*, in which you stand still and stretch muscles. (Think of your average calf stretch, hamstring stretch, arm stretch, etcetera.) There is also *dynamic stretching*, in which you stretch while moving. (Exercises include caterpillars, Frankensteins, various kinds of lunges, and so on.) Discussing stretching in detail is outside of the scope of this book. If you do want to read more about it, there is plenty of information online.

## **Properly warming up for a match**

The drills mentioned so far warm you up for a training. To get ready for a match, you need to go one step further. First of all, you need to get your body ready for top intensity. This involves doing at least a few sprints and cuts at 100% intensity. Do enough of these to really get you breathing hard, but not so many that you get tired.

Secondly, you need to get *mentally* ready for the match. This is the most important part of a warming-up, but it is also most often overlooked. The most common way to get mentally ready is to do exercises focused specifically on the tasks which you are about to perform. For Ultimate, there are three levels.

- » The first step is some basic throwing. You should never play a match without having touched a disc be-

forehand. So, grab a disc, grab a partner and start throwing.

- » The second step is combining throwing and running. Do a drill which involves both.
- » The third step involves intense Ultimate play. Do a drill in which a defender is breathing in your neck.

However, it is important to keep in mind that every player has a different preference when it comes to mental preparation. Some players need to be all fired up. Other players want to be calm before playing a match. Some players want to do very intense drills to get ready for high-level Ultimate. Other players only want to visualize (possibly with the right music) how they're going to make that awesome play. Always give players some freedom to prepare themselves as they see fit.

A general rule for mental preparation is: *At the end of your mental preparation, you should be eager to play.*

### ***Properly warming up after a break***

On tournaments, you often have breaks between matches. It is important to dress up warmly during these breaks. This usually keeps the core of your body warm for another hour.

With the core of your body still warm, you therefore mainly need to warm up your outer muscles. (Think of your ankles, calves, hamstrings and arm muscles.) Do some basic exercises for this. Then try the high intensity stuff.

If the high intensity stuff goes well, you can usually quite quickly continue with the mental preparation. Small and fun Ultimate-related games often work well here.

### ***Group warming-ups or individual warming-ups?***

A common discussion in any sport is whether the players should warm up as a group, led by the trainer/coach, or do so individually. The answer to this depends on the situation.

- » When there are beginning players around, always do a group warming-up. Beginning players often don't know yet how to properly get warm for a match. Potentially, experienced players may do their own warming-up.
- » When you're starting up a training, do a group warming-up. This creates a better group atmosphere, which is something some players value a lot. Furthermore, it ensures that everyone is finished warming up at the same time, focused on the training at hand.
- » When you're preparing for a high-level match, always start off with some group exercises. This adds to the team bonding, which is valued a lot by some players. However, for the second half of the warming-up, every player needs to get mentally ready for the match, and how this is done best very strongly varies between players. Therefore, give players the space to get ready in their own way. Organize a group exercise for players that value this, but give other players the freedom to do what they think works best for them.

## **A.4. Doing drills**

### ***Setting up the drills***

Let's say you know which drills you're going to give. How do you set them up?

- » *Get people's attention.* Make sure that everyone is listening to you. Make sure that they know you're going to set up a drill. For most trainers, this seems trivial. However, especially for beginning trainers, players might not expect that you're going to give a training. If you don't have authority within the group yet, it works well if someone with authority introduces you.
- » *Explain the theory.* What you're telling here varies strongly per drill, but it's always very important to incorporate the "Why?" Players want to know why they're training for something. For a simple throwing drill, all you can say is "Practising your throws regularly is important." For a complicated zone defense drill, you might be explaining things for five to ten minutes.

- » *Explain the drill.* What is happening in the drill? Who should go where? Who should throw where? And (while this is very often forgotten) how does the rotation work? That is, where should players go after a single execution of the drill? At the end of the explanation, players should know exactly where to go, how to set up and what to do. That is, if you finish your explanation with a loud “go!” then the drill should run smoothly right away.

All the drills in this manual are also split up in this way. Every drill starts with a block “Theory.” I would advise you to slightly summarize this block, based on your players, and tell this story to the group. The drills in this manual then continue with a block “Drill set-up.” Also tell this (in a possibly summarized form) to your players. They are then ready to do the drill.

### ***Running the drills***

So you explained the drill to the group. You told players to get moving. What do you do next? Sit back and relax? Heck no! Being a trainer is a busy job.

- » *Sort out hesitant groups.* After you end your speech, players should start the drills. Some groups set up quickly. Others are much more hesitant or may even still have lingering questions. The first thing you should do is spot the hesitant groups and sort out their doubts. Get everyone working as soon as possible.
- » *Give individual feedback.* Once things are running smoothly, walk around, studying players. Are they doing the drill well? If there’s room for improvement, briefly pull a player away from the group and give him individual feedback. (This can either be to fix a personal error, or to give a tip which would make the drill more effective/challenging for a player.) Individual feedback is the key to quickly improving a player’s skills and, when given well, is also much appreciated by players. (If a lot of players have the same improvement point, it’s often more efficient and effective to stop a drill and inform everyone together.)
- » *Give compliments.* Trainers often only focus on what can be improved, but focusing on what has just been improved is much more powerful. If you see that something has improved, give a compliment right away. The more specific and personalized you can make the compliment, the better it works. After all, players work much harder for a tempting reward than an impending remark.
- » *Set out the next drill in advance.* Often drills require a certain set-up of cones. (Using cones wisely can make drills much more effective.) But, like I already mentioned, after a speech you want players to get moving right away. You don’t want to tell them “Please wait while I set out the cones.” That’s why you should set out your cones in advance, during the last minutes of the previous drill.

All drills in this manual have a block “Points of attention.” These are not points which you initially tell players. However, when you see that a player is not following a certain point of attention, you might briefly pull him away from the group and individually tell him about this point of attention.

Next to this, almost all drills in this manual also have a block “Advanced extensions.” When a player/group is doing particularly well at a drill, you might change the drill according to one of these advanced extensions. This doesn’t only make sure that these players learn more. It’s also very motivating for the players to hear from the trainer that they’re doing very well, and that they’re getting extra advanced drills because of it.

## **A.5. Tips and tricks for trainers**

When giving trainings, there are tons of things which you should keep in mind. These are things which experience can teach you, but trying to take them into account right from the start will turn you into an awesome trainer much faster.

### ***On preparing your trainings***

- » *Always make a drill schedule.* You should always know in advance which drills you’re going to do and how long each will take. The trick here is to make the drills not too short, but not too long either. Ideally, you stop a drill just before players feel they’ve practised something enough. This makes sure players keep on wondering, and are always eager to train more. The average drill duration is 10 to 12 minutes. But of

course this strongly depends on the drill.

- » *Schedule water breaks.* If you let players do drills hours on end, they will bail out from the drill to get water. This disrupts the flow of the training. To prevent this, schedule at least a short water break after every two to three drills. If you do this consistently, players will know that a break is coming. They won't bail out from drills anymore.
- » *Stay true to your schedule.* So you've made a schedule. Keep it! Running late on one drill often means skipping another drill, and you don't want to do that.
- » *Check for safety issues.* Before every training, inspect the field. Are there ways in which players can get hurt? (For example through objects lying around the field, or perhaps through an unsafe field itself.) And is it possible to reduce these risks? If both answers are yes, then you know what to do.

### ***On explaining theory and drills to the team***

- » *Work on your presentation skills.* Talking to your team is just like giving a lecture or a presentation. It should be clear, concise, motivating and most of all engaging. Rehearse your speeches when necessary.
- » *Keep your speeches short.* In trainings, it's mainly the drills that matter. When players are throwing plastic, they learn. So keep your stories short and get players moving as soon as possible.
- » *Keep your speeches clear.* To keep your speeches clear, make a list of what lessons you want to convey. Make this list as short as possible. Then, when giving the speech, make sure you mention the things you wrote down and only the things you wrote down. After all, the more you say, the less players remember.
- » *Demonstrate drills.* When explaining a complicated drill, it helps a lot if players can see how it goes. You could use complicated drawings, but it's often best to demonstrate the drill in life size. Use some experienced players for this. (Ask them in advance for this. Make sure it's clear what is expected of them.) Do keep in mind that you should *always* still be able to address the group. So never participate in this demo yourself, unless you can still address the group while doing so.

### ***On giving feedback***

- » *Only give feedback when players are ready to receive it.* The best place to give feedback is calmly on the sideline, when players are ready to listen, to think about it and to ask questions. Giving feedback in the heat of the moment - like during a match - generally isn't effective. Okay, unless perhaps when the feedback can be conveyed effectively in only one or two words, like "Good!" or "Too risky!" and you know the player will understand it. In any other case, wait with giving feedback.
- » *Feedback should be immediate.* Feedback should be given as quickly after the event as possible, while keeping in mind the rule above. It's much better to give feedback right after a match than at the end of the day. Players will remember the situations to which the feedback applies much better.
- » *Feedback should be specific.* Telling a player "You played really well today." is a great way to cheer him up, but it doesn't teach him much. If you want players to learn, be as specific as possible. "I see that you're starting to quickly dump a disc, right after you caught it. That's a great improvement in your game." Or, "Always keep on running until you have the disc. Especially when there's a defender nearby."
- » *Use a feedback structure.* When giving feedback, it is wise to apply the following steps.
  1. *Ready?* Check if the player is ready to receive feedback.
  2. *Situation?* Describe the situation. This can be a hypothetical situation or one that just happened.
  3. *Current action?* Tell the player what he did and what effects/consequences his actions had.
  4. *Desired action?* Tell him what you would have liked him to do, and what effects that would have had.
  5. *Check?* Check if the message came across. Also answer any lingering questions.

Going through all these steps significantly increases the effectiveness of the feedback.



## B. Advanced player tips

In Ultimate frisbee, there are many small details which you cannot really train on, but which are worthwhile to pay attention to. These details aren't mentioned in any of the trainings, but they are important for high-level Ultimate players to know. This chapter contains a couple of these tips.

Of course, this is by no means a complete list. Furthermore, opinions may differ on these points. The idea of this chapter is not to present a final judgement. It is to get you thinking about the small details of playing Ultimate. And, if necessary, you can share some of these ideas with the best players of your team and start up a discussion. What are their opinions?

### B.1. Throwing

#### *Change grips with one hand*

When changing the grip from backhand to forehand and vice versa, many players use their off-hand (that is, their non-throwing hand) to assist. Reasons they give for this are "It's safer - I never drop it", "It gets the disc in my hand better", "It's faster", and so on.

My advice is: learn to change grips without using your off-hand. With enough practice, any of these potential "advantages" can be negated. (Unless perhaps in really wet and windy weather. Then it's OK to occasionally assist with your off-hand.) And if you don't need your off-hand when changing grips, you can use it for extra balance instead. This allows you to step out faster and further, making you much more powerful as a thrower.

#### *Work on your lefty backhand*

Throwing and immediately running is very powerful. You often get a good lead on your defender. To do this well, you need to already be moving forward before you release the disc. Of course you should release the disc just before you lift your pivot foot, but at this point you should already have some forward velocity. Doing so with a backhand is easy. Doing so with a forehand (though possible) is very hard.

My advice is: practise your lefty backhand. It will make you much more dangerous as a speedy handler. And lefty backhands can be useful for lots of other things too.

#### *When throwing: visualize*

Many Ultimate players often throw a disc. Just doing so leisurely won't improve your skills much. When you're throwing, always visualize a game situation in which you might do that particular throw. Act as if you're in it. This will help you improve your throws much faster. Also, keep in mind to vary these game situations. Make sure you practise your low release throws, your high-release throws, your speedy passes, your floaty passes, your quick breaks and more.

#### *Keep on experimenting with throws*

When you're throwing a disc, never do the exact same thing ten times in a row. It's a waste of time. Your muscle memory only learns from the motion once. If you really want to learn, vary your throws. Try different release points, release angles, spin velocities, wind-ups, wrist orientations and so on. Experiment!

In fact, this doesn't only hold for throwing. Ultimate players never stop learning. If you always try new stuff you've never tried before, and if you're always busy with new techniques, you'll always continue to improve.

#### *Never say sorry before the disc hits the ground*

Imagine that you just made a bad throw. Probably the receiver won't be able to get it. In this situation you're likely to yell "Sorry!" But by doing so, you're actually telling your receiver, "It's not your fault if the disc hits the ground. I'll take the responsibility." What often happens next is that the receiver doesn't even fight for the disc. After all, no one will blame him if the disc hits the ground.

The rule here is never to say sorry before the disc hits the ground. Then, when the receiver makes that spectacular save, you can yell “Thank you!” instead. Or, if the disc hits the ground anyway, you can still say sorry.

## **B.2. Handling**

### ***Find the best option***

When a decent handler has the disc in his hands, he looks where he wants to throw to, checks if there is a safe option, and if there is, he throws it. If not, he goes for his back-up option. This is OK, but not ideal.

When an expert handler has the disc, he takes in all the options that are available to him. If there is any option that puts the disc in a better position/situation than where it is now, he immediately throws it. This works much better.

In fact, this is exactly why the best handlers so often pass a disc before they even have a marker or a stall count on them. There just was an option putting the disc in a better position/situation than they were at.

### ***Take in the field, but also keep your marker busy***

As a handler, you need to know what’s going on upfield. This of course means that you need to look upfield. However, it doesn’t mean that you should be stationary. Then you would allow your mark to be balanced, ready to make the hand block.

The best throwers are able to pivot and keep their mark busy almost without a conscious thought. In the meantime they still take in everything that’s going on upfield. Then, when the time comes to make a throw, the marker is off-balance and the throw should be easy.

### ***Pivot without losing sight of the field***

Let’s say you’re in a backhand ready position and want to switch to a forehand ready position. How do you turn? Do you keep facing the field or do you briefly turn your back on the field? The latter is a bit faster, but during your turn you lose sight of the field. The time you gain by this quick turn is a lot less than the time it takes for you to recover from this loss of field sense. Hence, always pivot without losing sight of the field.

### ***Step out perpendicularly to your receiver***

When throwing to an upfield receiver, many players step toward their target. Other players step out parallel to their marker. These directions of stepping out are not ideal. It’s more efficient to step out perpendicularly to your receiver. So if your receiver is north of you, you should step out (roughly) either east or west. (Note that this doesn’t depend on where your marker is, although you of course shouldn’t step through him.) By doing so, you maximize the distance between your pivot foot and the flight path of the disc.

## **B.3. Cutting**

### ***Don’t make a fake when you can get open without one***

Many cutters believe that, if they want to get open, they always need to make a fake first. This is not true. If your defender is behind you, then you can just run at full speed forward. If you do this with commitment, there is no way the defender will catch up and you can get that disc.

### ***Cut even if you won’t get open***

When you’re asking a player, “Why didn’t you cut?” the answer is very often “Because I was defended really well. I wouldn’t get open.” The misconception here is that you make cuts to get open. Of course it would be nice if you did. But even if you don’t, the cut isn’t wasted.

After a good cut, your defender is a bit more tired and has lost a bit of field sense. “But so do I!” Well, offensive players can recover field sense much more easily than defensive players. So if you make enough cuts,



after a while you will be able to lose your defender.

The lesson? Even if you'll never get open, still make those cuts as if you're going to get that disc.

### ***Never make short cuts***

Let's say a cutter starts running. When do you, as a thrower, decide to throw the disc to him? Probably after his first two or three steps, when you think he'll get open. This means that, as a cutter, you should *never* turn around after the first two or three steps of your cut. (Okay, unless you're 100% sure that the thrower won't throw the disc.) Doing so will only risk miscommunications.

So what should you do? Make longer fakes. These are also much more effective. By taking 5 to 10 steps, you nearly get up to full speed. This means that your defender will have to do so as well. If you then suddenly turn around, you'll have lost him. *A cut of three steps fakes out the thrower. A cut of six steps fakes out the defender.*

Alternatively, you can also throw in an occasional shoulder/hip fake, or a very quick one-step fake known as the *jab step*. These fakes are faster than any thrower can react to, so there's no risk of miscommunication.

### ***After a layout: dump***

Imagine you just made a layout catch. You quickly get up, all excited. You see a teammate running deep, you throw the huck, and it turns out that your teammate wasn't so open after all. Ever happened to you? You wouldn't be the only one.

After a good layout, your whole body is filled with adrenaline. It feels as if you can conquer the world. Everything seems possible. But everything isn't possible. The adrenaline clouds your judgement! Top players know this. That's why, the four seconds after an insane layout grab, they only go for safe options. In other words, the best thing you can do after a layout is dump the disc to a teammate with slightly lower levels of adrenaline.

### ***Don't call for discs***

Imagine you are wide open but the thrower doesn't see you. What do you do? Call his name? Many players do. The problem here is that the thrower needs a second to process the call. He then also needs a second to throw the disc. After these two full seconds, you're quite likely not open anymore. Still, the thrower believes he can throw the disc to you, since you just called out his name. The result often is a defensive interception.

The solution here is simple: don't call for discs. Okay, only if you are 100% sure you are open, and you are also 100% sure you will be open in two seconds, no matter what the defense does, then you can call for the disc. In any other situation, don't call for the disc. You'll only distract the thrower and help out the defense.

## **B.4. Defense**

### ***Catch or block your Ds***

Many defenders, when getting close to a flying disc, slam it to the ground. It's a great way to vent adrenaline. But to be honest, if you can slam a disc to the ground, you can catch it too. In fact, catching is faster and you can be certain that the offense can't still catch it. So if you can, always catch your Ds.

But what if you can't? What if the disc is only within reach of your fingertips? Do you try to slam it down with the tips of your fingers? No. If you do that, chances are the disc will still go up. The best thing you can do is block the disc. That is, alleviate it from its velocity. If a disc stops flying forward, it'll fall down by itself.

### ***Defend the offensive player, not the disc***

Let's say that you're on defense. The player you're defending is in the endzone and suddenly gets a high pass. The disc is coming quickly, but you don't know where it is. What do you do? Quickly try to read the disc? Many defenders do, misread the disc and subsequently allow a score. So this doesn't work so well.

Instead, you should try to read the offensive player. Make sure you see in his eyes when the disc is coming. When it is, jump as high as you can, and do so while being as close as possible to the offensive player. If you

do this well, you either block the disc or it will fly over the both of you. Only if the offensive player is positioned extremely well will he manage to score. But in that case he would've had it anyway.

### ***After a turn, move the disc***

Let's say that you were on defense and you just caused a turnover. What do you do? What many players do is pick up the disc and try to get it forward. But this is exactly what the defense expects and tries to shut down!

It's usually a lot easier to pick up the disc and move it first. Any direction is fine, but moving the disc horizontally across the field works best. If you do this - especially if you do this quickly - the defense will be out of position. Now it's actually a lot easier to move the disc upfield and perhaps score.

### ***Use loud stall counts***

Teams in which players use loud stall counts have an advantage over teams that don't. First of all, loud stall counts often add some extra psychological pressure to the thrower. But more importantly, it tells the whole defensive team at what stall count the thrower is. The defense can use this knowledge to adapt how they defend. However, the most important reason to put up a loud stall count is to help cutter defenders. If the stall count is loud, the upfield defenders always know where the disc is and are a lot less likely to be caught out of position.

## C. Fitness training

When you're starting to play Ultimate on a higher level, it's important to also start spending time on your fitness. A good fitness training for Ultimate contains four parts: stability, speed (agility), strength and stamina (endurance). This appendix lists various drills for each of these blocks (sections C.1 to C.4), as well as a few examples (section C.5) of how to assemble them into actual fitness trainings. Keep in mind that you can do almost all these drills without needing any equipment, so there's no excuse not to try them.

### *Disclaimer*

The drills in this appendix will improve your fitness if you do them in the right way. They will give you injuries if you do them in the wrong way. Therefore, I must ask you to pay careful attention to the instructions. But even with these instructions, I cannot guarantee that you do the drills correctly.

- » If something “hurts in an unfamiliar way” or “just feels wrong”, stop doing the drill immediately.
- » Don't overtrain. Especially when you're not in a very good shape, start off easy and steadily build up intensity and duration during the season. Also make sure to take a proper rest after each training.
- » When things are starting to hurt, and the pain doesn't subside after 2-3 days, consult a professional.

Finally I want to note that you're doing these fitness drills at your own risk. Use your own sane mind to decide what's wise and what's not. You and only you are responsible for your own actions.

### C.1. Stability (including warming-up)

#### *Theory*

Let's do a small test. Go stand on one leg. Now slowly start bending the knee you're standing on, lowering your ass as if you're sitting down. Then do the same with your other leg. While doing so, pay specific attention to your knee. Is it shaking a bit from side to side? Or is it nice and steady? If it's shaking, then stability drills will definitely be useful for you.

The idea here is that there is a certain “neutral” position in which your knee or ankle can best convey force. When you jump from one leg, you want your knee (and ankle) to be in this neutral position. However, this position is unstable. When you put more force on your knee, your knee will automatically twist either left or right. This is bad for two reasons. First of all, it reduces the effectiveness of your jump, since you can convey less force. But more importantly, it puts lots of strain on your ligaments, which may result in injuries.

The solution is to train for stability. There are lots of small muscles around the knees and ankles, which constantly try to keep them in their neutral position. Specifically training these muscles will improve your stability. This can prevent injuries, as well as make your jumps and cuts more powerful.

#### *Drill set-up*

For the drills in this block, you make two lines, roughly 10 to 20 meters apart, depending on the fitness of the players. Every time, participants do a drill to the other side, after which they jog back.

If available, you can also give players weights (dumbbells or medicine balls) to hold during these drills. Start off with light weights and slowly build up over the season. If weights are not available, you can also do the fitness training without them. Now drills can be made harder by simply doing them with more intensity.

#### *Warming-up drills*

We start off with some warming-up drills. You don't have to do all of them. About half will do.

1. *Lift knees.* Pay attention that players use the proper arm motion. When players are already a bit warm, you can ask them to lift their knees as high as possible.

2. *Lift knees sideways.* Do this first facing one way and then facing the other way. Make sure that the legs of players are always next to each other. One leg shouldn't cross over the other.
3. *Lift knees backward.* Again pay attention that players use the proper arm motion.
4. *Lift knees with one leg.* That is, you only lift one knee, while the other just does a normal running motion. Do this with one knee first and with the other knee later on.
5. *Lift heels.* During this, players can lean forward a bit, their arms hanging loosely from their shoulders.
6. *Knee/heel lift variations.* Come up with something yourself. Perhaps lift the right knee and the left heel? Do three knee lifts and then take a normal step? Things are going well when players are having trouble with this. It means that they're not only getting warm, but are also training their coordination skills.
7. *Side-steps.* Swing the arms to gain some more height during a side-step and to loosen up the shoulders.
8. *Cross-steps.* Keep the arms at shoulder level and rotate at the hips.
9. *Skipping variations.* Doing some skips can also be nice during the warming-up. It's even more fun when you vary the type of skips you're doing. Lift up the knee very high during a skip. Kick out the lower leg during a skip. Do very small and fast skips, in which both feet are put together very closely. Do zigzag skips in which you skip left, then right, then left, and so on. Or come up with something else yourself.

### ***Stability drills - lunges and variations***

Lunges are especially important in Ultimate, because we do one every time we step out for a throw. Training your lunges will therefore definitely help you in your throws. But they're useful for much more than that.

10. *Lunges.* Stand straight, lift up one knee and then place that leg on the ground far ahead of the other. While doing this, both knees should be at a right (90 degree) angle, your front shinbone should be vertical, the knee of the other leg should almost be touching the ground, your upper body should be upright and your arms should be horizontally pointing forward. Repeat this until you reach the second line.

During the first set of lunges, it's important not to go too low into your lunge. After all, your hamstrings aren't warm yet. If you have serious muscle aches the day afterward, then this might be the cause.

During the lunge, players should pay attention to their front knee. Players with little knee stability will see it swiveling a lot. By focusing on getting the swiveling out, players will build up (knee) stability.

11. *Lunges with turn.* Do a lunge, in which you keep your hands pointing forward. After this lunge, rotate your upper body sideways, in the direction of your front leg. (So if your right leg is up front, rotate to the right.) While doing so, keep your legs stable and your upper body vertical.
12. *Lunges with lean.* Instead of pointing your hands forward, point them up toward the sky/ceiling. Now, when you do a lunge, you slowly lean over to the side of your front leg. (If your right leg is up front, lean to the right.) This will stretch your hips on one side. Make sure to remain balanced during the ordeal.
13. *Lunges with folding up.* Instead of pointing your hands forward, keep your hands on/near your chest. Now, when you do a lunge, you bend forward, letting your elbows (nearly) touch the ground. Your shoulder should be close to your front knee.
14. *Lunges with touching the ground.* Do a lunge onto your right leg. Then, use your left hand to touch the ground as far as possible in front of your right leg. In the meantime, your right hand should point backward. Repeat, but then with everything mirrored.
15. *Lunges backward.* Steadily lift up one leg backward. Use it to take a big step backward. Then go into lunge form, with your back knee nearly touching the ground and with your upper body vertical. Repeat.
16. *Lunges backward with touching the ground.* Do a lunge backward and then touch the ground in front of you. If your right knee is in front, touch the ground with your left hand. Repeat.
17. *Airplane/superman into lunge backward.* Go into an airplane/superman mode. That is, lift your left leg backward. For the airplane mode, spread out your arms as if they're wings. For the superman mode, put your left arm forward and your right arm backward along your body. Next, put your back leg down to

go into lunge form.

### ***Stability drills - squats, frog hops and variations***

Through squats and frog hops, you train for stability, but also for explosivity. Doing lots of them can help you jump higher or accelerate faster.

18. *Sideway squats. (Step over the log.)* Face to the side. Take a big step sideways with one leg, as if you're stepping over a log. Next, lower your ass as if you're sitting down on the log. Come back up, lift up your other leg as if that leg too has to go over the log. Repeat this until you reach the other side. Then do the same, but facing the other direction. All the time, keep your arms in front of you, pointing forward.
19. *Frog hops.* Put your feet a shoulder's width apart. Keep your arms in front of you, pointing forward. Lower your ass, such that your upper legs are nearly horizontal. Next, take a big leap (frog hop) forward. Upon landing, immediately get back into your former frog form for a full second, making sure you're balanced. Repeat this until you reach the other side.

During your jumps, pay attention to the stability of your knees. Try to reduce the amount of swiveling.

20. *Frog hops sideward.* Do frog hops, but now sideward. Try to have both feet lift off simultaneously, as well as land simultaneously. After doing this once, do it again, facing the other way.
21. *Frog hops backward.* This is extra tough because you can't really jump very far backward with a frog hop.
22. *Quick frog hops.* Do normal frog hops, but instead of being balanced for a full second after each hop, you can immediately continue hopping. Try to minimize the time you're in contact with the ground.
23. *Small frog hops.* Do quick frog hops, but now take many small hops.
24. *Extra low frog hops.* Go so low that your upper legs (hamstrings) are touching your lower legs (calves). Do small and gentle frog hops from this form, all the while staying low.

### ***Stability drills - one-legged stability***

One-legged stability is very important for Ultimate, especially when you're prone to knee injuries. It also helps you to jump higher or turn around faster.

The next couple of drills are not done "running between two lines". They're done on a single place. For each drill, it's sufficient to do about 5 repetitions per leg for the squats, or 10 repetitions per leg for the hops.

25. *One-legged squats, leg forward.* Stand on one leg. Stretch the other leg in front of you. Put your arms in front of you, pointing forward. Now gently lower your ass, as if you're sitting down, until your upper leg is nearly horizontal. Then go back up and repeat this. Try to reduce knee swivels.
26. *One-legged squats, leg backward (skater squat).* The same as the previous drill (25), but then with the second leg behind you. This is actually a bit harder but also a bit more useful than the previous one, so if players have mastered the previous one, start applying this one instead.
27. *One-legged hops.* Start off in the one-legged squat form with the other leg backward. (See drill 26.) Then quickly lift the knee of the other leg up as high as possible, making a small hop. Land on the same leg you hopped off from and immediately go low again. This smoothly absorbs the impact.

When this goes well, and the knee is stable during the landing, you can steadily start hopping higher and higher. When doing this, also the swinging of the arms becomes important, so add that too.

28. *Stationary rock hopping/ice skating.* Start off in the one-legged squat form with the other leg backward. (See drill 26.) Then jump as far as you can to the side. Land on the other leg and immediately go into the one-legged squat form again. Repeat this.
29. *Low cone hopping.* Stand on one leg, right next to a small cone. (Or imagine that there is a small cone.) Then, by using small hops on one leg, start hopping sideways back and forth over the cone. Left, right, left, right, and so on. (Note that, with small hops, it's not needed to go into the one-legged squat form.)
30. *High cone hopping.* Stand on one leg, right next to a big cone. (Or imagine that there's a big cone.) Then



start hopping sideways back and forth over the cone. When this goes well, and the knee is stable, try to jump higher and higher. (Note that, due to the big hops, you will have to apply the one-legged squat form now.)

The next couple of drills are again done by moving between two lines, 10 to 20 meters apart.

31. *Rock hopping/ice skating.* Jump diagonally forward, onto one leg. Then, without putting the other leg down in-between, jump diagonally forward onto the other leg. Continue zigzagging across the field. Use the swing of your arms to shift your momentum during your jumps.
32. *Rock hopping with a second of balance.* Do rock hops, but every time you land, make sure that you're balanced for a full second. Pay specific attention to the stability of your knee.
33. *Rock hopping with an in-between hop.* Do rock hops, but now every time you land, you make an additional small hop forward on the leg which you just landed on.
34. *Plyometric rock hopping.* (Do this only if your team is in reasonable shape already.) Do rock hops, but try to minimize the amount of time which you have contact with the ground. The trick here is to not let your heel touch the ground. Use the elasticity of your ankle (among others) to do quick hops.
35. *Backward rock hopping.* Do rock hops backward.

### ***Remaining warming-up drills***

To finish the warming-up, I often throw in one or two extra drills that focus less on the legs and more on the entire body, completing the warming-up. These drills can also be used in the strength block (C.3) though.

36. *Caterpillars.* Keep your legs straight. Put your hands near your toes on the ground and slowly, with small steps, walk out on your hands, until you're in a push-up position. (Optionally, you can do a push-up now.) Then, again while keeping your legs straight, walk up on your toes until your toes reach your hands again. You'll feel the stretch in your calves. Repeat this for 5 to 10 times.
37. *Frankensteins.* Stand up straight and stretch out your left arm horizontally in front of you. Then, with your right foot, kick your left hand. Next, as your leg falls back down, continue swinging it backward. When doing this, you can even use the backward momentum to make a small hop. Next, take a step forward and repeat this, but now with everything mirrored. Do this for 5 to 10 times.
38. *Sideward shuffle.* Start in a push-up position, with your body parallel to the starting line. Step out to the side with your right arm and right leg. (Lift both of them simultaneously.) Next, close again by moving along the left arm and the left leg. Continue doing this until you reach the other line. Repeat this, going the other way. (Optionally, to make this drill a lot tougher, you can do a push-up in-between.)
39. *Spidermans.* Start in a push-up position, with your head pointing in the direction you want to move to. Step forward with your right arm and your left leg. Next, step forward with your left arm and your right leg. Continue doing this until you reach the other line. All the time, keep your chest as close to the ground as possible.
40. *Shoulder walk.* Lie down on your back, with your head pointing in the direction you want to move to. Next, by walking on your shoulder blades and your heels, move to the other line. Try to keep the distance between your heels and your shoulder blades as big as possible. Otherwise the drill is too easy.

## **C.2. Speed (agility)**

### ***Theory***

Imagine you're the most fit athlete that ever existed. Your sprints are lightning fast and your jumps sky high. This fitness is wasted if you're always on the wrong leg, unable to sprint off in the first place.

The key is to train your footwork. How can you position your feet and apply the right steps to put as much force into the ground as possible? Teaching that to your legs is the goal of this speed (agility) block.



## *Agility ladder set-up*

The best way to practise agility is with an agility (rope) ladder. If you have one, spread it out on the ground. If you don't, an alternative is to use cones. These cones represent the wooden rungs of the ladder. Spread out ten cones with half a meter in-between each. Use one ladder (or one set of cones) for every 4 to 8 players.

## *Agility ladder drills*

There are many footwork patterns you can do on an agility ladder. I've listed a few of the most common examples. If you want to learn more, just search the web for "Agility ladder drills."

For each of these drills, it's best if you let players first get used to the stepping pattern on a somewhat slower pace. Once they've got it, encourage them to go through the pattern as fast as possible for two or three times.

41. *One foot each run through.* Put one foot in each ladder square. So it's "left, next square right, next square left, next square right," and this is repeated.
42. *Two feet each run through.* Put two feet in each ladder square. So it's "left, right, next square left, right, next square left, right," and this is repeated.
43. *Three forward one back.* Put two feet in each ladder square, but after going forward three squares, go back one square. So it's "left, right, next square left right, next square left, right, previous square, left right," and this is repeated.
44. *Lateral run through.* Rotate so that the ladder is on your side. Then put two feet in each ladder square. So, when the ladder is on your left, it's "left, right, next square left, right," and this is repeated. You can do this going in either direction, but when you go to the right, you should start off with your right foot.
45. *Ickey Shuffle.* Put two feet in each ladder square and then put one foot next to the ladder. So it's "left, right, left next to the ladder, next square right, left, right next to the ladder," and this is repeated.
46. *Lateral Ickey shuffle.* (This is my personal favorite.) Rotate so that the ladder is on your side. Now apply exactly the same steps as in the Ickey shuffle, but then while moving to the side.
47. *Backward Ickey Shuffle.* This is the Ickey Shuffle, but then backward.
48. *Reduced Ickey Shuffle.* Put two feet in each ladder square, but only after the second square do you put one foot next to the ladder. So it's "left, right, next square left, right, left next to the ladder, next square right, left, next square right, left, right next to the ladder," and this is repeated.
49. *In and out.* Put two feet in each ladder square and then put one foot on each side. So it's "left, right, left next to the ladder, right next to the ladder, next square left, right, left next to the ladder, right next to the ladder," and this is repeated.
50. *Backward in and out.* This is the in and out, but then backward.
51. *Line drill.* Rotate so that the ladder is on your side. Then put two feet in each ladder square followed by two feet in front of the ladder. So it's "in the square left, right, in front of the ladder left, right, in the next square left, right, in front of the ladder left, right," and this is repeated. You can do this going in either direction, as well as starting with either foot.
52. *Double line drill.* This is the same as the lateral in and out, but now, when you put your feet next to the ladder, you vary the side on which you do this. So it's "in the square left, right, past the ladder left, right, in the next square left, right, in front of the ladder left, right," and this is repeated. Again, you can do this going in either direction, and starting with either foot.
53. *One foot hop through.* Hop through the ladder on one leg, placing it in each square. So it's "left, next square left, next square left," and so on. You can (and should) of course also do this with your right foot.
54. *High one foot hop through.* Do the one foot hop through, but then imagine that every ladder spoke (or every cone) is thirty centimeters high and you need to jump over. Try to minimize ground contact time.
55. *Two feet hop through.* Hop through the ladder on both feet, where your feet always land simultaneously.

56. *High two feet hop through.* Do the two feet hop through, but then again with “very high” ladder spokes.
57. *One foot slalom.* Hop through the ladder on one foot, placing it first in and then next to each square. So it’s “left, left next to the ladder, next square left, left next to the ladder,” and this is repeated.
58. *Two feet slalom.* This is the same as the previous one, but now you hop on both feet. Again, the feet always land simultaneously.

### ***Points of attention***

- » You will often see that players are uncomfortable with the agility ladder drill. This is a good thing. It means that they learn. If a player never tries something new or never makes a mistake, he never learns.
- » The idea is to remain balanced with minimal effort. To do this, it helps if your center of mass is low and stays low. If you see a player that bounces up and down a lot, advise him to keep his center of mass steady.
- » Another sign that a player does this drill well is if his steps have a constant rhythm. If a player puts down his feet with a varying rhythm, there’s probably a moment when he has no contact with the ground. At that moment he’s out of balance. Therefore, encourage players to get a constant rhythm.
- » Some players always start the drills with the same foot. If you see this, ask players to vary the foot they start with. Players should ideally be symmetric in their footwork.

### ***Advanced extensions***

- » The idea is that players learn how to apply proper footwork in unexpected situations. If you always do the same drills, then players just learn to do those drills and will not learn how to deal with surprises. So always keep varying the running patterns. If you went through the full list a few times, think of some fancy patterns for yourself or look up some new ones on the internet.
- » After players have gone through the agility ladder with some footwork pattern, you can let them do some sprints before they join the waiting line again. A simple example of this was given in drill 22.1, but you can think of other more complicated variations too, like runs involving sideshuffles (like drill 22.2), backward running, quick bursts forward and so on.

## **C.3. Strength**

### ***Theory***

Ultimate contains many explosive motions, like high jumps, quick sprints and layouts. During these motions, you use lots of different muscles. For example, during jumps, you gain momentum by flinging your arms upward. During sprints, you need to use the core of your body to transfer momentum. During layouts, you need your lower back to stretch out in mid-air. And these are just a few examples of the muscles you use.

Doing strength training will significantly improve these explosive motions, allowing you to jump higher, run faster and lay out further with less chance of injuries. It’s important here not to forget any muscle groups. The whole core of your body should be targeted, from your hamstrings all the way up to your shoulders.

### ***Drill set-up***

To do the drills in this block, players only need some space, so ask them to spread out a bit. For some drills players also need a partner and possibly a disc. If this is the case, inform them of this in advance.

For this strength block, you should select about 6 to 12 drills, depending on the fitness level of your team. Make sure to vary the type of drills. You don’t want to do two “ab drills” (or any of the same type of drills) in a row, but making every second or third drill an ab drill is not a problem.

You then briefly explain the first drill and let the group do that drill for 40 to 60 seconds. After this, you immediately continue explaining the next drill and let players do that for 40 to 60 seconds too. This repeats. Try to minimize the amount of rest players get between drills. Ideally, they go straight from one drill to the next.

## ***Ab muscle drills***

These drills target your abs. Ab muscles are muscles with lots of blood flow, meaning they recover quickly. You can therefore train them pretty often. Training your abs can make you sprint faster or jump higher.

Remember that, for this entire section, drills are all done on a single spot. The duration is 40 to 60 seconds.

59. *Minor abs.* Lie down on your back. Put your feet flat on the ground and put your hands on your chest. (Don't fold them behind your neck! By pulling on your neck, you can get neck injuries. Instead, you may put them behind your ears.) Lift your shoulder blades off the ground. Now start making very small motions. All the while, you should keep the tension in the abs. Never let your shoulder blades touch the ground and never go up so high that the tension in your abs decreases. Smaller motions are better.
60. *Sit-ups with boxing.* Lie down on your back. Put your feet flat on the ground and start doing sit-ups. Every time you get up, hit the air in front of you with both fists. Alternate with which fist you hit first.
61. *Sit-ups with throwing.* Get a partner. Together, you get one disc. Sit down opposite to your partner, with about a meter in-between. Now both players start doing sit-ups in the same rhythm. Every time you go up, one player throws the disc to the other player. (Use a backhand throw. If possible, vary righthanded and lefthanded backhands.)
62. *Canooing.* Sit down and lift your feet off the ground. Now touch the ground on your left with both hands, touch the ground on your right with both hands and repeat. Make sure that you properly rotate your upper body with each touch.
63. *Canooing with disc.* Get a partner. Together, you get one disc. Sit down next to your partner and start canooing, but instead of touching the ground where your partner is sitting, you hand over the disc. Note that, when you just handed over the disc, you don't sit still. You again touch the ground on your other side. Halfway through the drill, both players should rotate 180 degrees and continue.
64. *Reverse crunches.* Lie down on your back. Lift your legs straight up in the air. Next, push your legs upward, such that you're only lying on your shoulder blades. Then go down again and repeat. Make sure to keep your legs vertical all the time.
65. *V-ups.* Lie down on your back. Next, fold up from your waist. That is, lift both your feet and your upper body, such that they're both nearly vertical. Briefly touch your toes with your hands. Then go back to the starting position and repeat. Make sure to keep your legs straight during the entire process.  
  
By the way, this drill will initially be hard for players because it requires some coordination. Most players will quickly get used to this. If you want to make this drill even tougher, you can also make sure not to let your feet (and possibly also your shoulder blades) touch the ground upon going down.
66. *Touching toes.* Lie down on your back. Lift your legs straight up in the air. Next, briefly lift your upper body to touch your toes with both hands. Then go back down and repeat. Make sure to keep your legs straight all the time. Also, to make this drill even harder, you can try to keep your shoulder blades off the ground all the time.
67. *Touching ankles.* (This drill is nearly the same as the touching toes drill (66).) Lie down on your back. Lift your legs straight up in the air. Next, briefly lift your upper body and touch the outer side of your right ankle with your left hand. Go back down and touch the outer side of your left ankle with your right hand. Repeat this.

## ***Core muscle drills***

These drills focus on the core of your body, which more or less means everything between your hips. Having a strong core can help you turn faster, run more efficiently, stretch out better during layouts and most importantly prevent injuries in the case of collisions or bad landings.

68. *Plank.* Get down on your elbows and on your toes. Keep your entire body straight, from your heels up to your shoulders as if you're a plank. Keep up this stationary position.
69. *Plank with diagonal stretch.* Go in plank form. (See drill 68.) Then stretch out your right arm and your

- left leg for a few seconds. Place them back and do the same with your left arm and your right leg. Repeat.
70. *Plank with walking on feet.* Start in a push-up form. (In plank form, but then on your hands.) Keep your hands in place and walk on your toes clockwise, around your hands. Halfway through, switch direction.
  71. *Plank with walking on hands.* Start in a push-up form. Keep your feet in place and walk on your hands clockwise, around your feet. Halfway through, switch direction.
  72. *Inchworm.* Start in a push-up form, leaning on your hands with your body straight. While keeping your feet stationary, slowly walk forward with your hands until you almost collapse to the ground. Keep this up for a second and then slowly walk back. Repeat this.
  73. *Side-plank.* Get down on your left elbow and on the outside of your left foot, facing sideward. Put your right hand on your hip. Keep your entire body straight, as if you're a plank. (For the first few times you do this drill, the outside of your lower leg (your calf) may also touch the ground.) Keep up this stationary position. Later on, do this drill again, but now on your right elbow.
  74. *Side-plank with small hip motions.* Get in a side-plank form. Then make small motions up and down with your hips.
  75. *Side-plank with small leg motions.* Get in a side-plank form. Then make small motions up and down with your upper leg. Don't let it touch the lower leg.
  76. *In and out side-plank.* Get in a side-plank form on your left elbow. Stretch out your right arm above your head. Bring your right elbow and your right knee together. Then stretch out again and repeat.
  77. *Hip-lifts with leg-stretch.* Lie down on your back. Put your feet on the ground, right behind your ass. Put your arms straight up, with your hands pointing to the sky. Then lift your hips off the ground, such that your upper body and your upper legs are in a straight line. (This is the hip-lift form.) Next, lift off one foot and extend that leg, keeping both upper legs parallel to each other. (You might get cramps in your calves when doing this. This is a sign that you're training hard.) Halfway through this drill, switch legs.
  78. *Hip-lifts with shoulder turns.* Lie down on your back. Put your feet on the ground, right behind your ass. Put your arms straight up, with your hands pointing to the sky. Then lift your hips off the ground, such that your upper body and your upper legs are in a straight line. (This is the hip-lift form.) Next, while keeping your arms straight, gently rotate your hands to the right, until they're almost touching the ground. You're lying on your right shoulder now. Gently go back to the basic hip-lift form and do the same on the left side. Repeat this.

### **Back muscle drills**

These drills train the muscles in your lower back. These muscles are especially important when laying out, but they're also useful for lots of other stuff. Because of this, I can recommend always doing one of these drills in any fitness training.

79. *High/low bananas.* Go into a (low) banana form. That is, lie down on your belly and stretch your arms in front of you. Always keep your arms, your knees and your feet off the ground. Next, go into a high banana form: lift your hands and your knees off the ground as high as possible. Keep this up for 3 to 5 seconds. Then reduce the tension, going back to a low banana form for 3 to 5 seconds. Repeat this.
80. *Rotating bananas.* Go into a (low) banana form. While keeping your arms stretched, slowly let your right hand float to your right knee. Let your hand float back and do the same on the left side. Repeat this.
81. *Throwing bananas.* Get a partner. Together, you get one disc. Lie down opposite to your partner, roughly 2 meters apart, and go into a (low) banana form. Next, throw the disc to your partner. Your partner should catch the disc (with a two-handed rim catch). Your partner then throws it back for you to catch. Repeat this. The idea is that with every throw and every catch, you briefly go into a high banana form.
82. *Push-up bananas.* Start in a push-up form. Lower yourself down to the ground until you lie on your belly. Then lift your knees and hands as far above the ground as possible. Next, put your hands and feet down on the ground again and do a push-up. Repeat this.



## ***Arm muscle drills***

83. *Push-ups.* Start in a push-up form. That is, while facing down, put your hands and your toes on the ground, keeping your entire body straight from your heels up to your shoulders. Your hands should be directly below your shoulders. Then start doing push-ups. That is, while keeping your body straight, bend your elbows and shoulders until both your upper legs, your chest and your nose almost touch the ground. Then push back up. Repeat this.
84. *Push-ups with partner clap.* Get a partner. Go into a push-up form, facing each other. Do a push-up, and then you raise your right hand to clap the right hand of your partner. Do a push-up again, and then do the same with your left hand. Repeat this.
85. *Push-ups with rotation.* Start in a push-up form and do a push-up. Then lift up your right arm and start rotating your body until you're facing to the side, with your right arm pointing straight up toward the sky. Rotate back, do another push-up and then do the same with your left arm. Repeat this.
86. *Sideward shuffle.* (This is almost the same drill as drill 38.) Start in a push-up form and do a push-up. Then lift your left hand and your left foot simultaneously, stepping to the left. Next, lift your right hand and your right foot simultaneously, stepping along. Do a push-up again, and then do the same but in reverse direction. That is, step to the right and step along with the left. Then repeat everything.

## ***Leg muscle drills***

87. *Jumping jacks.* Start off standing straight, with your feet next to each other and your arms by your sides. Now jump up, putting your feet wide and slinging your arms up, such that your body is in an X-shape. Next, jump up again and return to your starting position. Repeat this.
88. *Low jumping jacks.* Do a jumping jack, but now every time you return to your starting position, you crouch down and touch your ankles with your hands. Make sure to do the crouching from your legs and not from your back: your upper body should stay upright during the process. From the crouched position, again jump up into an X-shape, like you normally would in a jumping jack. Repeat the whole thing.
89. *Back rolls.* Do a low jumping jack, but now every time you're low, roll onto your back and push your legs up vertically until you're lying fully on your shoulder blades. From here, roll back up to your feet and continue the low jumping jack. Repeat this.

Note that, when coming back up from the roll, you should sling your arms forward. If you do this well, you gain enough momentum to get back up to your feet right away. If not, you could try rolling again, or just put a hand on the ground and push yourself up, but neither of these is preferable. Ideally, during this entire drill, your hands never touch the ground.

90. *Jumping for discs.* Get a partner. Together, you get one disc. Stand opposite to each other with about 3 meters in-between. Lower your center of mass such that you can almost touch your ankles, but keep your upper body upright. (Don't let your upper legs rest on your calves. That would be too easy.) Make sure to put your weight on your toes, with your heels slightly off the ground.

To start the drill, throw the disc up high to your partner. Your partner jumps up to get the disc as high as possible. He then immediately returns to and stays in his low posture. Next, roles are reversed: your partner throws the disc and you catch it, immediately returning to your low posture. This is repeated.

91. *Jumping for discs with back rolls.* This is the same as the previous drill (90), but now, every time you catch a disc, you first do a back roll (drill 89) with the disc in your hands. When you get back up on your feet, you stay in your low posture and only then do you throw the disc up high to your partner again.
92. *Scissor jumps.* Start in a lunge, with one foot far in front of the other and with both knees at a right (90 degree) angle. From this lunge, jump up and land in a lunge again, but now with your other foot forward. Make sure not to go too low in your lunge, to prevent overstretching your hamstring. Repeat this.
93. *Scissor jumping for discs.* Get a partner. Together, you get one disc. Stand opposite to each other with about 3 meters in-between. Go into a lunge. Now throw the disc up high to your partner. Your partner

jumps up to catch the disc as high as possible. Upon landing, he lands in a lunge again, but now with his other foot in front. He then throws a high pass back to you and you do the same. This is repeated.

94. *Burpees*. Do a jumping jack. Then put your hands on the ground and jump backward with your feet, landing in a push-up position. (If this drill is too tough, you can jump less far backward.) From there, jump with your feet in-between your hands again. From this position, repeat everything, starting with the jumping jack.
95. *Burpees with push-ups*. Do burpees, but now every time you're in a push-up form you do a push-up.
96. *Standing low and jumping*. Stand in a low posture. That is, with your center of mass low and your upper body upright. When the trainer shouts "go!" you touch your ankles and jump up as high as you can with your arms pointing upward. You do this a total of three times in quick succession. You then immediately go back to your low posture and keep this. (The trainer calls "go!" roughly every 10 to 15 seconds.) You keep this up until the trainer calls "stop." (As the season progresses, you can increase the length of this drill from 1 minute to 2 minutes or even up to 3 minutes.)

### ***Points of attention***

- » These drills are meant to be tough. Players often say, "There were so many times when I felt like quitting." Players also often involuntarily pause a drill because they just can't keep up. That's perfectly normal. In fact, it's good, because when players are feeling like this, it means they're at their limits, expanding those limits. So, as long as people are still able to breath properly, you don't have to worry about any of this.
- » During these drills, many players find "tricks" which make the drill easier for them. Like the minor abs drill (drill 59) where they put their shoulder blades on the ground, or canooing (drill 63) where they hardly rotate their upper body, or the plank (drill 68) or push-up (drill 83) where they put their ass up too high (standing bridge) or too low (sagging bridge), or the side-plank with small leg motions (drill 75) where they put down their upper leg on their lower leg all the time, or the banana (drill 79) where they put their knees on the ground. Often these tricks prevent the drills from being effective, but sometimes (like for push-ups) they can also cause injuries.

Try to see when players do such tricks and encourage them not to. Most of the times, just pointing out the flaw to the respective player will suffice. After all, players are doing the trainings not because they have to, but because they want to get stronger themselves.

## **C.4. Stamina (endurance)**

### ***Theory***

So now we know how to put our feet in the right position (agility), such that we can put force into the ground (strength) without breaking or tearing anything (stability). The next step is to be able to do this many times, for as long as a point in an Ultimate game lasts. After all, what good is having strength when you're lying down on the field, gasping for breath, ten seconds into a point?

### ***Drill set-up***

Training endurance can be done in infinitely many ways. We'll look at a couple of examples, but I encourage you to experiment with some of your own inventions as well.

The idea is that players are pushed to the brink of exhaustion. At the end of the training, players should be so out of breath that they have trouble to remain standing. Encourage players to remain standing though, because when standing up straight, your body can more easily gulp in huge amounts of air than when crumpled up on the ground.

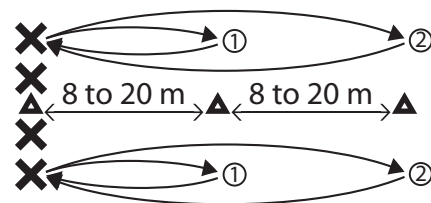
Do note that players should not be so out of breath that they have trouble breathing in the first place. In this case, the respective player went just a bit too far and should have quit the drill earlier.



## Force sprints

Set out three lines, 8 to 20 meters apart each. Let the exact distance depend on the fitness of the players. (That is, the first time you do this drill, start with a distance of 8 meters.) Players start all the way on one side.

Upon the start sign players sprint from the first (starting) line to the second line and back (run 1 in the figure), and then to the third line and back (run 2). This whole set of sprints is known as a “run”.



The whole drill now consists of the following.

- » One run, followed by 10 sit-ups.
- » One run, followed by 8 push-ups.
- » One run, followed by 6 burpees.
- » One run to end it all.

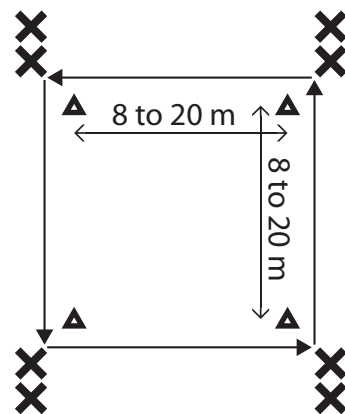
When players have finished this, give them about 60 seconds of rest. Then do it all again. Do it a total of 2 times (early on in the season) or 3 times (later in the season).

## Square sprints

This drill is ideally done in groups of 8, though it's also possible to have a group of 6. Make a square of cones with side of 8 to 20 meters. (Early in the season use smaller squares.) Let players make pairs. Each pair starts at one cone.

Each pair of players chooses one starting player. At the start, this starting player runs (counter-clockwise) to the next cone. There he does a drill. Every time he finishes a drill, he runs to the next cone and does the next drill there.

- » 10 sit-ups.
- » 8 low jumping jacks.
- » 8 push-ups.
- » 6 burpees.



When the runner has finished his 6 burpees, his partner runs off to do the exact same round. In the meantime the runner can catch a breath. This whole set is then repeated 3 or 4 times.

The fun part about this drill is that pairs can catch up or even surpass on other pairs. Try to get an atmosphere in which partners cheer each other on to beat the players from other pairs.

## Resistance training

If you have any kind of bands or ropes of roughly 3 meter long available, you can do a resistance training.

First, set out two lines 20 to 30 meters apart. All players start at one line, facing the other line. Next, divide the group into pairs. Each pair gets one band. One player (the runner) has the band around his waist, while the other player behind him (the resistor) holds both ends in his hands.

Upon the start of this drill, the runner starts high-frequency knee-lifts, going forward. The resistor makes this a bit difficult, by pulling the runner back a bit. It's important here that the runner continues to take small steps and make proper arm motions. In this drill, technique is more important than strength.

Note that this is *not* a tug-o-war contest. The resistor shouldn't apply as much resistance as he can. He should apply just the right amount of resistance to make things just a little bit tough for his partner. It's also important for the resistor to take small steps, because this prevents “bumps” in the amount of resistance applied.

When the pair reaches the opposite line, they turn around and interchange roles. That is, the resistor becomes the new runner and the runner becomes the new resistor. This is repeated for a total of 4 to 6 minutes, depending on the team fitness. Also depending on the fitness, you can repeat this after 2 to 3 minutes of rest.

## Cooling down

After the players are totally exhausted, it's good to do a cooling down. If you don't do a cooling down, the bodies of players will remain in "high activity mode" for a while, causing players to keep a high heart rate and blood flow. Through a cooling down, you gently reduce the heart rate of the players, which starts up the recovery process right away. For trainings late in the evening, it also helps players to sleep.

The first part of a cooling down is a very gentle jog. Let players jog slowly, in their own pace, once around the field. (Or twice for indoor fields.) This jogging serves as a transition from "high activity" to "no activity".

The next part is some gentle stretching. I've given some stretching drills which you can do. Note that this is by no means a complete list of stretching exercises. It's just a set of examples. Choose a representative subset of 5 or 6 stretching drills. Do each of these stretches for about 20 seconds per side. Oh, and do these stretches gently. Don't go for a "bouncing" stretch, because that can cause injuries.

97. *Calf stretch.* The calf muscle runs along the back of your lower leg. To stretch it, find a wall, a tree, or perhaps a partner to lean against. Put your hands against it. Place your right foot a step behind your left foot. While keeping your right leg straight and your right heel on the ground, slowly start to push your hips forward. You should feel a stretch in your calf.
98. *Quadriceps stretch.* The quadriceps muscle runs along the front of your thigh. To stretch it, use your right hand to grab your right ankle. (Don't grab your toes. You don't want to stretch one of the biggest muscles of your body through one of the smallest.) Pull this ankle up behind you. While keeping your knees together, slowly push your hips forward. You should feel a stretch in your quadriceps.
99. *Shoulder stretch.* To stretch the muscles at the back of your shoulder, stretch out your left arm horizontally in front of you. Next, use the lower part of your right arm to gently pull your left elbow to your right shoulder. You should feel a stretch in both your shoulder and your left upper arm.
100. *Symmetric hamstring stretch.* The hamstring muscles run along the back of your upper legs. To stretch them, sit down on the ground. Stretch both your legs out in front of you. Now lean forward, trying to touch the toes of both your feet with both your hands. (Flexible players may touch the soles of their feet.) You should feel a stretch in both your hamstrings.
101. *Asymmetric hamstring stretch.* Sit down and stretch both your legs out in front of you. Now move your right foot to your side, putting it as far backward as possible. Next, try to touch the toes of your left leg with your right hand. You should feel a stretch in your left hamstring.
102. *Knee-to-chest stretch.* Lie down on your back with your legs flat on the floor. Now pull up your right knee to your chest. (It's allowed to also slightly bend your left leg here.) Use both your hands to pull the knee closer to your chest. You should feel a stretch in the right half of your lower back.
103. *Leg-over stretch.* Lie down on your back in a T-shape, so with your legs straight and your arms straight to the side. Next, lift your right knee, grab it with your left hand and pull it to the left, toward the ground. While doing so, keep both your shoulder blades and your entire right arm on the ground. You should feel a stretch in your lower back.
104. *Knee-over stretch.* Sit down and stretch your left leg in front of you. Put your right foot flat on the ground, left of your left knee. Next, use your left elbow to push your right knee to the left. By doing this, you also rotate your upper body to the right. When doing this well, you should feel a stretch in your hips.
105. *Hip flexor stretch.* The hip flexors are located on the upper thighs, right below the hipbones. To stretch them, put your right knee on the ground. (When doing this indoor, you might want to use something soft like a towel to put beneath your knee.) Your left foot is planted firmly on the ground in front of you. Both your knees are at a right (90 degree) angle. Your hands are placed on your hips. Next, while keeping your upper body straight and vertical, slowly start pushing your hips forward. You should feel a stretch in your right hip flexor.
106. *Iliotibial (IT) band stretch.* The IT band is a band of tissue that runs along the outside of the hip, thigh and knee. To stretch it, put your right foot on the left side of your left foot, crossing your legs. (Your right

leg should be in front.) Next, while keeping both legs straight, extend your right arm over your head and slowly start reaching with it to the left. You should feel a stretch of your IT band near your hips.

## **C.5. Some example trainings**

We've given over a hundred drills so far. Doing them all in a row is not the best idea ever. It's better to make a selection for each training. I've set up a few examples which provide a decent balance between the various types of drills. If you give a fitness training like this and keep the pace high, it'll last about 30 to 40 minutes.

### ***Example training 1 - a nice and tough "introduction" training***

- » *Warming-up.* 1, 2, 3, 1, 5, 6.
- » *Stability.* 10, 11, 14, 16, 18, 19, 23, 31.
- » *Speed.* 42, 43, 45, 55, 56.
- » *Strength.* 59, 71, 88, 66, 74, 92, 62, 82, 94.
- » *Stamina.* Force sprints.
- » *Cooling down.* 97, 98, 99, 100, 102, 105.

### ***Example training 2 - lateral ladder drills and strength drills with partners***

- » *Warming-up.* 1, 5, 6, 7, 8, 9.
- » *Stability.* 10, 12, 13, 19, 20, 21, 19, 39.
- » *Speed.* 44, 51, 52, 46.
- » *Strength.* 59, 75, 90, 63, 81, 93, 61, 84, 91.
- » *Stamina.* Resistance training.
- » *Cooling down.* 97, 98, 101, 103, 106.

### ***Example training 3 - one-legged stability drills and strength drills that cramp up all extremities***

- » *Warming-up.* 1, 4, 5, 6, 9.
- » *Stability lunges.* 10, 15, 17.
- » *One-legged stability.* 25, 26, 27, 29, 30.
- » *Speed.* 41, 49, 50, 53, 57.
- » *Strength.* 59, 77, 88, 64, 80, 94, 65, 76, 96.
- » *Stamina.* Square sprints.
- » *Cooling down.* 97, 98, 99, 100, 104, 105.

### ***Points of attention***

- » The trick is to minimize the amount of rest in-between drills. A minute or two of rest between the speed and the strength block as well as between the strength and the stamina block is good. This allows the players to gulp down huge amounts of water. Try to get rid of any resting time in the rest of the training.
- » Oh, and keep in mind that these trainings are tough. Is your team just starting to focus a bit on fitness, then make sure to keep the training light and easy. That is, keep distances small and drill durations short. Otherwise you risk injuring your players right at the first fitness training.

## **C.6. Basic principles for creating your own fitness trainings**

As you get more involved in fitness training, and start to do it regularly, there are some principles which you

should know about. Okay, in reality there are tons of principles which you should know about. If you are interested in this, get yourself a couple of books on this topic or read up on this online.

This small section only serves as an introduction into fitness trainings and the principles that matter in them. It lists the most important principles that will help you most in putting together your own fitness trainings.

### ***Variability - on doing the right things when training***

I once saw a team that always did the same fitness drills. As a result, the players optimized their bodies to do these fitness drills. They looked to be in great shape. But when they were on the Ultimate field, and the motions were just a slight bit different, they suddenly lacked the coordination and strength to perform well.

This example taught me the principle of *variability*. You should always vary the stuff you're doing. This doesn't always have to be in a big way, as long as it's a little bit different. (There is a reason why I've listed 8 slightly different ways of doing lunges. And I'm quite sure you can think of a few more ways yourself.) Oh, and this actually holds not just for fitness but for all aspects of training, and especially for throwing practice.

By making your drills just a bit different, you challenge your players to adapt to changing situations. They never get comfortable doing a simple task. They're always busy adapting to whatever uncomfortable situation you put them in this time. And it's this skill of "adapting", both mentally and physically, which is so valuable in an Ultimate match. It's the skill which we want to train.

To conclude, no matter what you do, always make sure to do things a little bit different than the last time.

### ***Supercompensation - on timing your trainings right***

You train to get stronger. But when do you get stronger? During the training? Or afterward?

What really happens is that, during the training, you "damage" your muscles. Tiny tears appear in them. During the so-called *recovery phase*, your body heals these tears. But it doesn't stop there. It continues by adding a bit of extra strength to the muscle, so that it can cope better with the strain the next time. The time in which it does this is known as the *supercompensation phase*. After this, if you don't use the extra strength of your muscles anymore, your body slowly removes the extra strength again. This is called the *decline phase*.

So what can we learn from this? First of all, we learn that if we don't allow the body to recover, then there will not be any supercompensation. We don't get stronger! Recovery is crucial after a training. The length of the recovery does depend strongly on the type and intensity of the training. For example, ab muscles recover really quickly, so you can train those almost daily. Legs often need 2 to 3 days of recovery. Doing intense sprint trainings on two consecutive days therefore isn't the wisest of things to do.

So the first thing we learned is that the next training shouldn't be too soon. The second thing is that the next training also shouldn't be too late. In fact, if you only train once a week, then most of your extra strength will have decayed by the time you get to your next training. It will help a bit, but not too much. Training two or three times per week will get your fitness up at a much higher pace and/or keep it at a much higher level.

To conclude, you should time your trainings appropriately. Don't train too often, but don't put too much time between your trainings either.

### ***Energy systems - on training at the right intensity***

Where do muscles get their energy from? And can we use that knowledge in our training? Yes we can. In fact, there are three different types of energy systems in our muscles, and it's important to train the right ones.

The most short-term energy system is the *anaerobic alactic system* (meaning "with no air and no lactic acids"). The main way of providing energy to the muscle is through a chemical called ATP (adenosine triphosphate). This chemical splits up into ADP (adenosine diphosphate), Pi (inorganic phosphate) and energy. This energy is then used by the muscles.

The splitting of ATP can be done very fast. The only problem is that the supply of ATP is limited. You only have enough ATP for up to 10 seconds of high-intensity exercise. This is the reason why trained athletes can do up to 10 seconds of high intensity drills without seemingly breaking a sweat.

The second energy system is the *anaerobic lactic system* (meaning “with no air but with lactic acids”). After a while the ATP runs out and the only way to get it back is to remerge the DTP with the Pi. This of course requires energy again. (No, you can’t get the energy directly to the muscle. You have to do it through ATP.)

This energy comes from burning up food energy. That is, the glucose out of carbohydrates, fats, and proteins. This burning requires oxygen though. In high-intensity exercises, there generally isn’t enough oxygen available. As a result, the burning is done only partially. The leftovers from this partial burning are lactic acids.

The anaerobic lactic system can provide energy for up to roughly 60 seconds. Often, after 30 seconds of high intensity running, you start to feel the acid forming in your legs already. As you continue to run, the amount of acid increases, until your muscles just don’t work anymore as they should due to too much acid build-up.

The third system is the *aerobic system* (meaning “with air”). This system is for any exercise longer than a few minutes. In this energy system there’s a sufficient supply of oxygen to your muscles, so your muscles can fully process your food energy without leaving lactic acids. Of course you cannot use this system when doing exercise at full intensity. There’s only so much oxygen your body can process. (This is called the  $VO_2$  *max limit*.)

So which system is used most in Ultimate? In Ultimate, points often last about two minutes. (This also depends on your level of play.) If you take into account breaks (for calls and such), this means you mainly operate on the anaerobic lactic system. If you want to train, you want to be training that energy system. So while marathon running may be fun, it won’t help you on the field. Or at least, not as much as other stuff.

But then how should you train? You should train such that you use your anaerobic lactic system. The magic word here is *interval training*. Do high intensity exercises for up to one minute. Then take one minute of rest, allowing your body to process the lactic acids. Repeat this a few times. By doing this, you train your body to deal with and process lactic acids, and that will turn out to be very useful later on in an Ultimate match.

To conclude, by training on the right intensity, for the right duration, you train exactly those energy systems in your body which you need during an Ultimate match.

### ***Plyometrics - on training to become just a bit more explosive***

“Plyometrics” is a term which is often used in fitness training for Ultimate. But what exactly is it? To be honest, there are so many different definitions out there that I doubt anyone knows for sure. Most definitions incorporate one or more of the following.

- » It’s about putting as much force into the ground in as little time as possible.
- » It’s about going from rapidly extending your muscles (when hitting the ground) to rapidly contracting them (to push off).
- » It’s about jumping higher and changing direction faster.
- » It’s about using the inherent elasticity of your muscles and tendons to create more force than your muscles on their own can do.

Summarizing, by doing plyometrics trainings, you will be able to put more force into the ground in a shorter amount of time. As a result, you will be able to jump higher and change direction faster.

To train for plyometrics, an important principle is to “land and immediately jump off again, minimizing ground contact time.” Some of the drills in this fitness manual already focus on this. See drills 22, 30, 34, 54 and 56.

There is a very important caveat here. Plyometrics drills put huge strains on your legs. Doing too many is likely to result in an overtraining injury, like a jumper’s knee, shin splints or something similar.

A rule of thumb to prevent this is to have at most 100 high-intensity plyometric ground contacts during a single training. So, if you do two-legged drills (like drill 56), you should do at most 100 jumps. If you do one-legged jumps (like drill 54), you should do at most 50 jumps for each leg.

Note that, as you train more and your body becomes used to the plyometrics drills, you may slowly start to increase this limit. You should always pay careful attention to what’s going on inside your legs though. If things start feeling funny, and the feeling doesn’t go away in 2-3 days, you might be close to overtraining.



## D. Experiences with this manual

I'm looking for some stories of people that have used the drills in this manual. Are you such a person? In that case, it would be very helpful if you could write a short story - just three short paragraphs or so - about your experiences. What was the situation? What did you do? What worked well? What didn't work well? What was the result? Both success stories and tales of epic failure are welcome.

I'm especially curious about the stuff which you did next to just giving trainings. Did you work a lot on team-building? Did you arrange extra throwing sessions? Did you do insane amounts of fitness trainings? Or did you just focus on these drills and nothing else?

If you have a story, then please send it to [hildobijl@gmail.com](mailto:hildobijl@gmail.com). There's a good chance that you'll find it (perhaps slightly abbreviated) in this appendix in a next version of the Ultimate Trainer's Manual.



# Drill index

This drill index gives an overview of which topics are treated in which drills. It's useful if you're looking for a drill to train a particular technique or strategy.

Keep in mind that the higher the number of the drill is, the later we treat it during the season. So drill 1.1 is very basic, while drill 39.5 is the last drill we do before our most important tournament.

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