

The Floorball Book

Equipment and Maintenance

Table of Contents

Table of Contents	1
Buying the Right Equipment	1
Stick	1
Shoes	7
Player Accessories.....	7
Goalkeeper Equipment.....	8
Goals	10
Board.....	10
Kits.....	11
Balls	11
Cones and Accessories	11
Total Cost.....	12
Where to Buy.....	12
Maintenance	12
Changing the Grip	12
Changing the Blade	13
Hooking the Blade.....	14
Shortening a Stick.....	17
Goal Nets	18
Costs.....	19
Licence	19

Buying the Right Equipment

Since the beginnings of floorball, the variety and quality of equipment has continually improved. Where once most sticks were the same, today a floorball player is faced with a large variety of choices. This is a positive development, as every player can now purchase the equipment best for his or her needs.

Because of the large number of different sticks and accessories, it is important to make the right choice. The most expensive stick is not necessarily the most suitable one for you. In this chapter you will learn how floorball equipment differs, and how you can choose the best equipment for your needs.

Stick

When choosing a floorball stick, there are a lots of thing you may want to consider. This section should help you do so. Not all points you can consider are equally important.

However, it is absolutely essential that you choose the right blade (left or right). The second most important point to consider is probably the stick length. The good news is that you are allowed to shorten a stick. This means that if you buy a stick that is too long, you do not necessarily need to buy a new one. Next up, think about the flex (how stiff the shaft is). Having covered these three points, you should have come up with a pretty good choice already.

Make sure you always buy floorball sticks with an official IFF certificate. Such certificates are not only required if you want to play in the league or official competitions, but are a sort of safety certificate. Sticks only carry the IFF certificates when they comply with the strict regulations and have passed independent safety tests.

If you are concerned about one of the features, but your point of sale does not state the values, you often get the answer when asking. Moreover, many manufacturers themselves list a large amount of useful information about their sticks on their web site. If you are serious about choosing a stick, and you also wish to consider the less important features, these web pages are well worth a visit.

What We Are Talking About

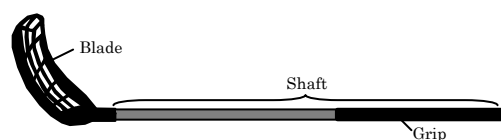


Figure 1: Parts of the stick: blade, shaft, grip.

First off, let us establish what we are talking about. Figure 1 should help you understand what the different parts of a floorball stick are called. The whole thing is the floorball stick. The blade is the part the ball is played with. The shaft is the long cylinder where the stick is held. The upper end of the shaft is usually covered in a grip. The grip helps you handle the stick better.

Blade: Left or Right

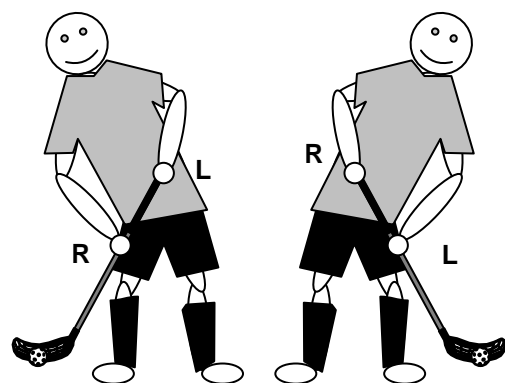


Figure 2: Left and right: the player on the left of this illustration shoots right, the other on the left.

This is the most important choice when it comes to choosing a floorball stick. It is essential that you choose what feels right. Do not choose left or right depending on whether you are left-handed or right-handed, nor should you be influenced by what the better players use: this is purely about you, and making the wrong choice will disadvantage your play enormously.

To find out whether you play left or right, pick up any stick. You should find out in seconds what feels more natural to you. If not, try a stick with a left blade and one with a right blade for a few moments, trying to pass and shoot. The terms left and right refer

to which side of the body you shoot. If you shoot left, your right hand is placed on top of the shaft. If you shoot right, your left hand is placed on top of the shaft (see figure 2). In countries where field hockey is common, players tend to choose right. In countries where ice hockey is common, players tend to choose left. However, you should not be guided by what the other players choose: choose what feels right to you.

Being right-handed, shooting on the left will generally give you better stick handling. Some players find they can change from shooting right to shooting left within a few weeks, others find it awkward even after a very long time trying. You should never feel forced to change the side on which you shoot; even if all your mates do it differently from you, or that brilliant player you know shoots on the other side than you. There is a good reason why blades are produced for both left and right shooters. However, players who are right-handed, more generally shoot on the left. The reason is that the right hand is on the top, and thus allows you better control over the stick. Conversely, being left-handed, shooting on the right allows better stick control.

Stick Length

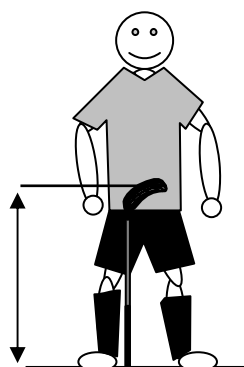


Figure 3: Stick length: a stick should reach to the belly button.

The length of your floorball stick is probably the second most important choice. If possible try out sticks of different length, because the guides provided here are only of general nature. If you feel more comfortable with a longer stick than generally recommended, use a longer stick.

You are allowed to shorten your stick at the end (see page 17). This is important to know, since some manufacturers sell their sticks only in a rather long version. Never shorten the stick at the bottom where the blade is attached. This is not only prohibited by the rules, but can also be dangerous.

As a general rule, your floorball stick—including the blade—should reach your belly button (or up to 5 cm above). Figure 3 illustrates this length. Children and youth players sometimes play with significantly longer sticks, reaching up to the chest.

Even small children should not play with sticks longer than that. They might get used to the wrong moves, and harm their back.

Body Height	Shaft Length
Under 1.30 m	70 cm
1.30 m to 1.45 m	75 cm
1.45 m to 1.55 m	80 cm
1.55 m to 1.65 m	87 cm
1.65 m to 1.75 m	92 cm
1.75 m to 1.95 m	95 cm to 100 cm
Over 1.95 m	100 cm

Longer sticks give you a better range. This means that the area you can easily reach with your stick is larger. They are also thought to be kinder on your back. Defenders frequently choose slightly longer sticks. However, you should choose your stick length based on what you are comfortable with, not based on what others tend to use. Shorter sticks, in contrast, give you quicker ball handling. This may be

the essential split second when doing a trick, or turning when running. They are also thought to give you more powerful shots.

When you buy a floorball stick, normally given is the length of the shaft. The table in this section is a rough guide to how long your stick should be. How tall you are is the most important factor; your preference is secondary, but not unimportant.

Stiffness (Flex)

Here is an important piece of floorball jargon. The flex simply states how stiff the shaft is. Choosing the right stiffness will benefit your play. The flex is probably the third most important criterion to choosing a floorball stick. If in doubt, go with a slightly softer stick to begin with.

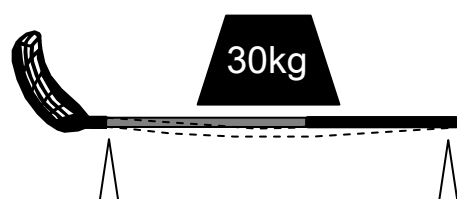


Figure 4: The flex is measured by applying 30kg.

Heavier players tend to use stiffer shafts. This is the case because they normally put more power on the stick, and therefore bend it more easily. Stiffer sticks are sometimes heavier, but this is not necessarily the case. If the stick is too stiff—that is the flex is too low—you lose power in the shot. This is not noticeable when you literally hit the ball, but with any other

kind of shot, shooting becomes more difficult.

The stiffness of a floorball stick is usually written straight on the shaft. Look out for small letters. 24 mm is very stiff; 27 mm is stiff; 30 mm is regular; 35 mm is soft. Typical values are 26 mm to 32 mm for female players. Typical values for male players are 24 mm to 28 mm. Youth players normally play with a flex of over 30 mm. This means that children and youth players should not normally play with top-range sticks: these are normally much too stiff, and adversely affect the play and development of the aspiring floorball player.

In technical terms, the flex simply states how much the shaft bends when 30 kg are applied (see figure 4). A small number of sticks have two flexes, depending on the direction the pressure is applied. For example there are sticks with a different flex for the forehand and backhand.

Weight

Most players like lighter sticks. The lighter the stick, the easier to handle it is. Unfortunately, very light sticks may break more often, and usually come with a higher price tag. This is the case because more expensive materials are used to make the sticks lighter. Fortunately, improvements in materials mean that breaking floorball sticks are rarer these days.

You should choose a light stick for better ball handling. A heavier stick might give you stronger shots, but only if you are strong enough to make use of the additional weight. There are other aspects, such as technique or the blade, which are more important when it comes to shooting power than the weight of the stick. If the stick is too heavy, your hands and wrists tire more easily, meaning that you feel tired more quickly. The weight of the stick is often given when you buy the stick. Make sure whether the stated weight is for the shaft only, or the whole stick (including blade and grip). A complete stick is often between 250g and 300g.

There are different materials used for the shafts, such as fibreglass, polycarbonate, or carbon fibre. Usually, the material used is directly reflected in the price. Composite materials are very common these days, such as carbon composites. Graphite and carbon-based sticks tend to be the more expensive ones. Fibreglass is only suited for beginners and schools, if at all.

Shape of Shaft

The shape of the shaft is often stated when you buy a stick. If not, it should be obvious to you when you take the stick in your hand. Choose a round or oval stick, depending on your personal preference. There is nothing inherently better in either shape. What is more, you will normally get used to a different shape in a few training sessions only. There are many players who happily switch back and forth between round and oval sticks.

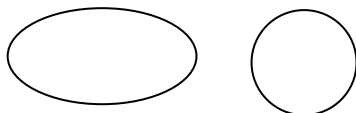


Figure 5: Shapes of the shaft: oval on the left, round on the right.

Semi-oval is a common choice. It means that the stick is oval at the top, and round at the bottom. There are also special shapes, such as bubbles and curved shafts. Bubbles, like the kickpoint technology, should increase the power of your shots. A number of bubbles may be included; anything between one and nine is common (see figure 6). Although bubbles may look a bit particular, they should not negatively affect your play in any way. Curved shafts exist to improve ball handling. For most players, the improvement is not as significant as what a few training sessions can do. Advanced players may find such special shapes more beneficial.

Stiffness and Material of the Blade



Figure 6: Bubbles are found in some shafts.

Having covered the shaft, you might want to pay attention to the blade. Blades are made of plastic or nylon compounds. Different materials are sometimes added to add stiffness, or make a blade softer or harder whatever is desired by the manufacturer. Colour is no indication of stiffness at all; in

fact, many blades of the same stiffness come in different colours.

Soft blades are better for ball handling, as the ball bounces off less. Soft blades are also good for accurate passes and wrist shots. Hard blades, in contrast, give you more

powerful shots, and allow you to hit faster passes. Like with almost all criteria, personal preference plays a strong role. Most players seem to settle somewhere in between the softest and hardest blades. Generally, PA and PE plastic are hard, whereas HDPE is soft. The added materials usually make a great difference.

Open Face

Open face describes the shape of the blade, as outlined in figure 7. A blade is said to have a more open face when the bottom part of the blade (where the blade touches the floor) comes forward, when the stick is held upright. Even though the amount of open face affects your ball handling a great deal, it is not very often stated. Where it is stated, it is given as a percentage, such as 3%. The higher the percentage is, the more open face the blade has.

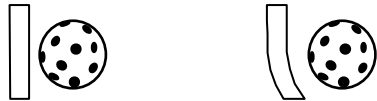


Figure 7: The blade on the right has open face

A blade with more open face makes it easier to lift the ball, to let the ball roll onto the blade, or to hit high passes. If the blade is too open, however, it is difficult to keep the ball on the floor when passing. When shooting with too much open face, you will shoot over the

crossbar most of the time. One reason that the open face of a blade is not very often given when you buy the stick, is that you can adjust it yourself, by shaping the blade accordingly. See page 15 for more details on how to shape a blade. Most players choose some open face, but you might need to experiment a bit to find how much is right for you.

Cavity

Whereas the open face of a blade can be adjusted by shaping a blade, the cavity of a blade is essentially a feature of the blade. It describes the extent to which the blade is formed in a way that increases contact with the ball. Figure 8 illustrates cavity. Cavity is achieved by building blades that are thinner in the middle than at the bottom and the top. There are, however, limits in the rules on how thin a blade can be.



Figure 8: The blade on the right has cavity

A blade with greater cavity means faster wrist shots, and a better feel for the ball. In contrast, less cavity means more precise passing. However, with good technique, cavity does not significantly decrease the precision of passing.

The cavity of a blade is not very often given. Where it is given, it is given in millimetres. It is more common for manufacturer to state that the blade comes with cavity (as opposed to flat blades), or that it comes with increased cavity (as opposed to blades with just a little). Some blades are designed for tricks, and these often come with a great deal of cavity. Indeed, blades designed for airhook and zorro moves often come with as much cavity as allowed. Whilst these blades make the tricks easier, they often make other aspects of the game—such as passing—more difficult.

The effects of cavity can be mimicked when the blade is shaped. A blade with little cavity can be shaped as if it had much more. Care must be taken not to exceed the maximally allowed hook (30 mm). See the section on hooking on page 14 for more details.

Shape

There is a surprising variety in the shapes of blades available. Not only do the shapes of blades differ between different manufacturers, but the same manufacturers usually produce different shapes. Smaller blades are designed with quicker ball handling in mind, larger blades in order to increase the contact with the ball. Thinner blades give you a better touch, but conversely a thicker blade is more stable when shooting. If you consider the shape of the blade an important factor the choice of sticks you can buy will therefore be strictly limited. This is the case, because not all blades are allowed on all sticks, as outlined on page 13. The replacement of allowed blades is however relatively easy.

The jury is still out on what is best in terms of the shape of the blade. Much comes down to personal preference, and the manufacturers are set to keep innovating in this regard. Having said this, some blades are designed with defenders or strikers in mind. Most players pay little attention to the actual shape of the blade. Like the shape of the shaft (round or oval), this is something you will normally get used to after just a few training sessions.

Lie

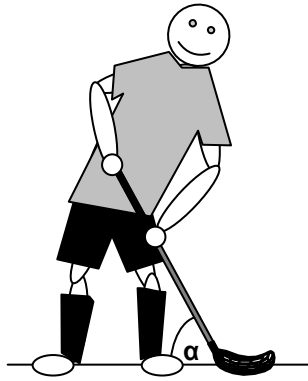


Figure 9: Lie (a)

The lie is the angle between the floor and the shaft when the blade is flat on the floor. It describes how close to the body you play. See figure 9 for an illustration. A higher degree of angle means that you play closer to the body; a lower degree of angle means that you play further away from the body. A higher degree may be beneficial for quick turns and tricks.

The lie of a stick is very rarely given and not many players pay attention to this factor. Like the shape of the blade, the lie is something you will get used to within a few training sessions. With a new stick it is usually difficult to determine what makes it feel different from the old one, and the lie is just one of the many factors.

Grip

There are many different kinds of grips, and some manufacturers produce a range of different grips. What is best is entirely down to personal preference. Some players like rather sticky grips, others loathe them. Most grips are a bit sticky when new, but this often wears off after a few sessions. You can use soapy water to wash a grip.

All grips will eventually wear out, but some grips are stitched to help them survive a bit longer. The good news is that grips can be replaced without any tools—not even a screwdriver. In contrast with the blades, there are no restrictions as to what kind of grip is allowed with which stick. This means that if you fancy a certain grip, you can go and buy it. For example, one of your colleagues may have a stick with a grip you like.

Depending on where you live, getting a replacement grip may be a bit more difficult than walking into a shop. The spread of internet shops has eased the situation a bit. Nonetheless, some floorball players use grips originally designed for tennis rackets. This is certainly a possibility. However, floorball grips are better for a number of reasons. Firstly, they were designed with floorball in mind, meaning that the materials chosen are suited best for floorball. Tennis grips are designed with different movements in mind. Secondly, floorball grips are generally thinner and lighter. This means your stick will overall not become heavier, something you risk with different grips. Thirdly, floorball grips come in the right length. Some players use two or one and a half tennis grips to overcome this. With either grip, you are allowed to shorten the grip. Finally, floorball grips are cut and wrapped ready to go. This means that you simply unwrap the grip and intuitively apply it; no guessing or cutting required.

Try Me!

Finally, the single best piece of advice for choosing a floorball stick is trying one out. This is the case, because many aspects of a floorball stick come down to personal preference. If it feels right, and you can get good shots as well as precise passes, chances are that you have picked the right stick.

Summary

There are many aspects you can consider when buying a floorball stick. Some of the aspects are of little interest to many floorball players, others are essential. It is essential that you buy the correct side: shooting left or right. The length of the stick is very important, too. Fortunately, sticks can be shortened. The flex is another key aspect. The

best you can do, is to try out a stick, but where this is not an option, consider at least the three essential aspects.

Shoes

There are very few shoes particularly designed for floorball. This means, that your choice is limited, or does it? Whilst shoes designed with floorball in mind have their advantages, there are other considerations that should come first. First of all, a shoe should fit. This means that you need to try out the shoes, and run around for a few moments. The shoes should fit your feet tightly, but not be too tight either. It is better to buy shoes that fit than shoes that do not fit but were designed for floorball. Having shoes that do not fit is dangerous, and you risk serious injury.

What is essential is that you buy indoor shoes. Some cushioning (gel, air) can be good for your joints, but is probably not as important as for running shoes. Your shoes should be strong, so leather is a suitable material. Running shoes (trainers) are not suitable. Because of the frequent stop and go motions, your toes will quickly penetrate the mesh. What is more, running shoes do not support your joints adequately when playing floorball. Instead, indoor shoes designed for volleyball, handball, or squash usually fulfil the requirement of being strong. Tennis shoes are less suitable, but much better than running shoes. Whilst tennis shoes are strong, their grip is usually not very well suited for sports halls, at least not as well as indoor shoes. If you play on hard wood, and the floor is not spotlessly clean, tennis shoes may mean that you slip from time to time. Like everyone else, you should never wear shoes both outdoors and in the hall. Not only does this make the hall dirty, but a dirty hall is a health risk as someone may slip on mud or dust carried in from outdoors.

Summary

It is essential that you wear shoes that fit well. Good shoes can support your movements and protect you to a certain extent from injury. It is important that you choose shoes designed for indoor use. They should be strong enough to support the frequent stop and go movements. Shoes designed for floorball are rare, and for that reason not necessarily your first choice. Running shoes (trainers) wear out very quickly, and do not provide adequate support.

Player Accessories

There are a number of accessories available to floorball players. In terms of safety, goggles are the most important accessory. In contrast with much of the safety gear out there, floorball goggles not only keep you safe, but are also stylish. Goggles are recommended to protect your eyes. The chances that you are hit in the eye by a stray ball, stick, or elbow are low. In most cases your eyes will shut in time to prevent injury. However, it is also possible that you could lose your eyesight completely—go blind. Goggles are worn to prevent this from happening; they are worn because other players *have been* injured badly. With the stylish goggles available, there is no excuse not to wear any.

Players with long hair may wish to wear hair bands to keep the hair out of the face. There are hair bands by the floorball manufacturers, but these are essentially just hair bands with the brand printed on.. For safety reasons you are not allowed any accessory with hard parts, such as hats, or hair bands with buckles.

A number of floorball players use wrist bands. They can help to keep your wrist warm, but are mainly used to wipe away sweat. It is a personal choice whether to wear a wrist band or not. Logo branded wristbands are also permitted.

Jewellery, earrings, and watches should be removed before playing floorball. Tight necklaces are generally accepted as being safe. Loose necklaces, bracelets, earrings and so on are a risk to yourself and other players. For this reason, you should remove them before playing floorball. What is more, you might damage your precious belongings. There

are earrings that cannot be removed easily. Unfortunately wearing them is not safe. Rather than removing them, you can use tape to stick them onto your earlobes (see Figure 10). Make sure the tape covers both the front and rear of the earlobe. They might look innocent enough, but any kind of earring can be caught in the clothing of other players, and could then be torn out of your ear. Whilst this is not a very serious injury, this kind of injury tends to bleed a lot. By taping them, the risk of injury is reduced. Small nose stubs are often a smaller risk, but should be removed if possible, as is any other piercing. Again, covering these with tape reduces risk of injury a great deal. Some players even think they look professional with taped ears.

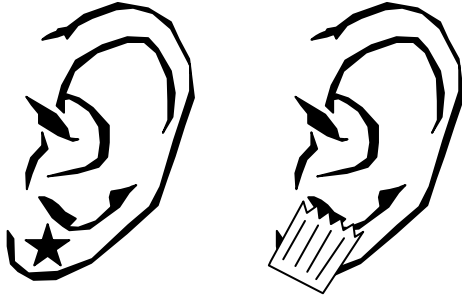


Figure 10: Taping ear lobes to cover earrings

Stick bags are an accessory many players invest in. They come fairly cheap, and hold your sticks. If you only own one stick, the benefit of a stick bag may not be that obvious. For players with two or more sticks, a bag is simply convenient and makes it easier to carry your floorball sticks. There is quite a variety of bags available. The most important aspect is whether the bag is big enough. If you want to carry four or five sticks, then obviously the bag should be large enough. Similarly, if your sticks are rather long, such as 100 cm or

longer, the choice of bags might be slightly limited. There are different kinds of handles, and some are specifically designed for instance, to carry the bag on a bicycle.

Goalkeeper Equipment

Shirt and Trousers

Floorball goalkeepers are equipped in a different way than the field players. They need to wear long trousers and a jersey. The rules do not say anything about the colour of the jersey, nor its length. For competitive games, numbering is essential. Padding is allowed as long as the area covered by the goalkeeper is not increased. In practice goalkeepers want quite a lot of padding. Even though the ball is light, powerful shots mean that keepers require appropriate clothing.

The trousers are padded at the front. Basic goalkeeper trousers are simply padded trousers. They are suitable in that the goalkeeper is protected adequately. More advanced goalkeeper trousers differ in terms of material used and the actual shape of the trousers. The material makes them more robust, and often glides more easily on the floor. The particular shape makes moving easier. Whilst the goalkeeper wants to be protected, he or she also wants to be able to move freely and quickly.

Padded pullovers are the basic protection for goalkeepers. Not only should the chest be padded, but the arms should have some padding, too. There are special goalkeeper vests to protect the chest. Wearing such vests can provide extra protection, or be worn with lighter pullovers or shirts. The choice of goalkeeper equipment should be driven by the extent to which it protects the goalkeeper, as well as comfort. Free movement should not be inhibited by the equipment.

Some goalkeepers use silicon sprays on their trousers for better sliding on the floor. Silicon sprays or other such means are strictly prohibited by the rules. The reason being that silicon sprays not only make the trousers slide on the floor, but can also make players slip whilst running on the floor where such trousers were worn. This practice is very dangerous, and serious injuries can be the result. Under no circumstances should you ever use silicon spray or similar means.

Goalkeeper equipment may look expensive, especially the more modern equipment. Modern goalkeeper suits are specifically designed with the needs of goalkeepers in mind, combining protection with comfort. Serious goalkeepers will need to spend a considerable amount on their equipment.

Knee Protection

Because goalkeepers spend most of their time on their knees, most goalkeepers wear some kind of knee protectors. There are still very few protectors designed for floorball specifically, but such protectors do exist. Whilst the protectors designed with floorball in mind are the most suitable ones, they do not come cheaply. A cheaper alternative is usually the use of volleyball knee protectors. Suitable protectors are the gel based protectors with a relatively large area padded. Unfortunately, all protectors—even the floorball protectors—move around a bit. What you will be looking for is a protector that moves as little as possible. For this reason it is important to buy the right size of protector, and attach it correctly. In order to find out the most suitable protector, there seems to be no way around trial and error. Goalkeepers are also advised to ask around, learning from the experience of other keepers.

Other Protection

The groin area is often not very well protected by goalkeeper trousers. One reason is that the way these trousers are designed to allow manoeuvrability, the groin area is very lightly padded if at all. The other reason is probably that the manufacturers assume that the goalkeeper already wears groin protection. There does not seem to be any special groin protector for floorball goalkeepers. The reason for this is probably that there are no specific needs for such a product, as all groin protectors offer the same kind of protection. The same kind of protector as used in kick-boxing or ice hockey can be used.

Face Mask

Goalkeepers also wear a face mask. The face mask should be IFF certified. Whilst other face masks or ice hockey helmets technically do the job of protecting the goalkeeper, floorball face masks are necessary. The most important reason for using a floorball mask is that they are manufactured within specific dimensions to prevent floorball blades and sticks from reaching the keepers eyes. A second reason is that they are lighter than other face masks providing free and quick head movement allowing the keeper to easily follow play and actively defend shots on goal with his head.

Shoes

Goalkeepers require shoes that are similar to those that field players wear. They should be strong, and have a reasonable grip on the floor. For this reason, indoor shoes are needed. What is more, however, is that goalkeepers want their shoes to slide on the floor, when they kneel. Some goalkeepers put a bit of smooth tape on top of the cap of their shoes. Strong shoes are required to protect the toes, because unfortunately it is not uncommon for goalkeepers to be hit on their feet.

Gloves or Bare Hands

Whether you play with padded gloves or your bare hands is a matter of choice. Gloves have the advantage that they soften the impact of balls. Their disadvantage is that it is more difficult to actually catch a ball. You are not allowed any adhesives, neither on your

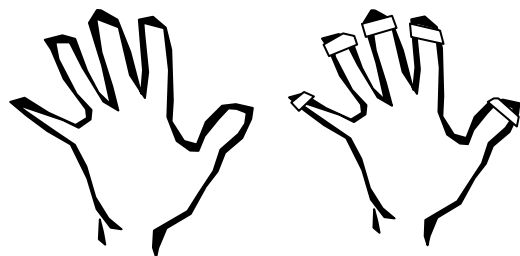


Figure 11: Finger taping to prevent splitting of the skin

gloves, or applied directly on your fingers. Playing without gloves means that you can move your fingers more easily and thus are able to catch more balls rather than have them bounce off. The disadvantage is that hard shots can be a bit stingy, and the skin of your fingers may suffer. The sting is something many goalkeepers put up with, the splitting of the skin is something you can prevent by taping the end of the fingers. See figure 11 on how this can be done. A bit of tape around the ends of your fingers prevents the skin from cracking open. This is especially recommended when it is cold, and the ball is harder because of the temperature.

Summary

Goalkeepers have a number of choices when it comes to equipment. You should always put safety first, and thus primarily consider protection. Comfort is important, and clothing that allows you to move freely improves your game. More expensive floorball equipment allows you exactly this.

Goals

Goal cages need to be IFF certified if you want to use them in competitions. An IFF certificate not only ensures you that the dimensions are right, but also that the goal is safe to use. The goals used in floorball are 115 cm high, 160 cm wide, and 65 cm deep. They are made of round piped steel and painted red.

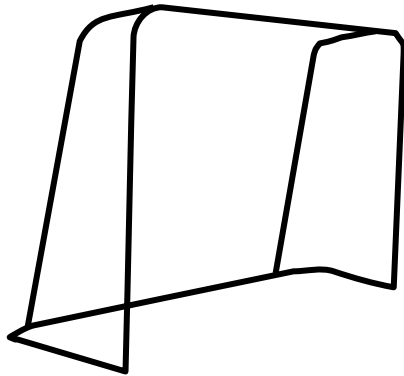


Figure 12: A full-sized goal is 160 cm wide, 115 cm high, and 65 cm deep.

Being round is important for safety reasons. A proper goal not only has a net, but also a catch net attached a little behind the opening. The catch net does what its name implies: catch balls and prevent them from bouncing out of the goal cache.

Proper floorball goals can be expensive, and it is usually worth shopping around a bit. Bear in mind delivery costs. Goals are bulky and almost always incur special delivery costs. Many clubs use different goals for training, sometimes of smaller size. Whilst this saves

you money in the short run, eventually every club will need proper goals. Having full-size goals is also good for the players and goalkeepers, getting used to the right dimensions: instinctively shoot on the right place; instinctively know where the goal posts are.

Board

For competitive games a club will need a set of boards. Usually, this is a purchase left until the club is well established. Fortunately, it is often possible to hire boards from other clubs or in some countries the national federation. When buying boards, there are a number of points to consider. Storage can be an issue, and you should check with your facility managers where and how you can store the boards. You should also know how to move the boards from the storage to the hall and back. The boards are relatively large, and moving around corners can be difficult. Most boards come with their own trolleys, allowing them to be rolled around: make sure there are no steps between the storage and the hall. As with the goals, boards are expensive, and it is usually worth shopping around. Make sure you know about the exact shipping charges, as they can be considerably expensive.

Whilst the size of boards is standardized to 50 cm, the materials and quality of boards varies from manufacturer to manufacturer. A big difference is also how the boards are assembled. Some boards have the tendency to collapse in whole sides when a player falls into the board. Others are constructed better, so that only one or two elements are affected at a time. This is something you should check with clubs who have bought the same boards, so ask for references.

You can expect a full rink to last for many years. This is one way to make the expensive cost a bit more bearable. The other way is to look at the great sponsoring space you get. There are 120 m of boards you can sell to sponsors.

If you own a set of boards, it is a good habit to train using the full rink all the time. It may take an extra 5 to 10 minutes to get ready, but if everyone helps, time can be kept down. The advantage is that the players get a feel of the right rink, get to play off the boards as if in a competitive game. Playing off the wall often is slightly different, as the balls tend to bounce off in a different way. The players will also get a feel of the 50 cm

height, and not be surprised how many shots and passes actually go out or remain inside the rink.

Kits

Field players play with a kit of a jersey, short trousers, knee socks, and indoor shoes. The use of shin guards is permitted, but they need to be worn inside the socks. The rules regulate the numbering of jerseys: numbers both on the front and the back. The trousers need not be numbered. Many teams use their kits for sponsoring purposes.

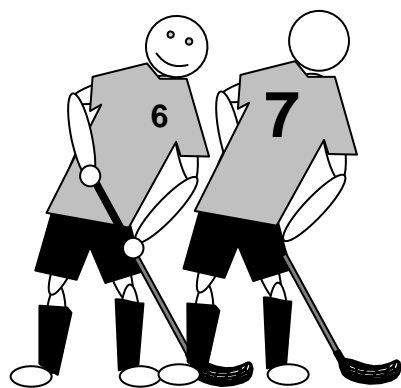


Figure 13: Shirt with numbers on front and back.

For training purposes, cotton shirts are a common choice, combining comfort with affordable prices. For competitive games, cotton is probably unsuitable: there are better textiles that keep the sweat away from the body. In either case, players should not wear anything that hinders free movement.

Figure 13 illustrates a full kit for a field player. There is a jersey with numbers both on the back and the front. There are short trousers, and knee socks. There is no need to have numbers on the trousers. For competitive games, the numbers on the back need to be at least 20 cm, and the chest figures at least 7 cm. Teams are free to choose short or long sleeves for their jerseys, but everyone needs to have the same. Most players find short sleeves more comfortable.

Balls

Until recently, when it came to floorball balls, there was not much of a choice. Whilst they are standardized by the rules, they were all pretty much the same. Some manufacturers were thought to offer better quality balls, however there was no agreement as to which manufacturers they were. Today, these balls are still widely used and liked, but new so-called precision balls are also available. Precision balls differ in that their surface is not smooth, but covered in over a thousand dimples, making them look a bit like golf balls. These new balls are a bit more predictable than the old ones, flying in a steadier manner.

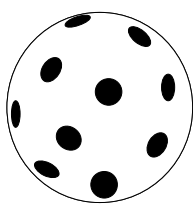


Figure 14: Floorball is normally played with a white ball

All floorball balls are made of two halves of plastic fused together. After a while, they tend to crack, either along the line where they are fused together, or around the holes. You should not play with a faulty ball, and probably would not want to as they react differently to a “normal” ball.

Whilst precision balls are more expensive, they not only are preferred by many in terms of ball handling, but some believe that they last a bit longer in the sense that they tend to remain hard for much longer. The traditional balls, in contrast, get softer the older they are. Eventually however all balls crack.. Both versions come in different colours. Colours can be cute, but usually are not an issue. There are coaches using different coloured balls for specific exercises, but in most cases, they just add a bit of colour. Normally, in a game the ball is required to be white. If the floor of your hall is very bright, you might choose another colour: red being the second most common choice. Recently, for international games, a vanilla yellow ball was chosen, possibly because this ball can be viewed easier on televised games.

Cones and Accessories

For training sessions you might want to purchase a number of other accessories, such as cones and space markers. Often such accessories are available in the hall, and you may

wish to ask if you can use these before purchasing your own. Basic cones and space markers for example, are cheap and readily available and can be useful to mark places in exercises. Other accessories, such as boxes and benches are probably either too expensive or too bulky to be stored, unless they are made available to you by the hall. It is often useful to talk to the facility manager about your needs.

Total Cost

Having outlined all the equipment, you may be a bit daunted getting started at all. Indeed goalkeeper material is not very cheap, but it is safety equipment. The good news is that such equipment will last a few years. Goals are essential. To get started, you may want to play on small sized goals where you need no goalkeeper. To play competitively, you will need a goalkeeper, though. Many clubs start with improvised goals or even cones to mark goals. This is fine to start with, but you will find it limiting in the long run.

Once you are equipped properly, the only recurring costs are balls, and to a lesser extent sticks, blades, and grips. The next section deals with these in more detail. Goal nets do not last as long as the goal cages, but they can be repaired, and even replaced.

Where to Buy

Where you buy your floorball equipment largely depends on what is available where you live. There might be general sports shops, or even specialist dealers. These are usually the best choice, as you can touch the equipment yourself, and maybe can even try it out. There is a difference in the range of products and brands stocked, and of course in the kind of advice you can get. Because not every stockist is a specialist, it is a good idea to be prepared when going shopping. This means you should know what you want and what you need. A great deal of information is available on the internet, from the manufacturers themselves.

The internet is a blessing for many, not only in terms of the information available, but also because of the increasing number of internet shops. You should check very carefully what you buy, since returning equipment may be difficult. Postage and delivery costs are added in most cases, and they can vary a great deal. Particularly, if you live in a country other than where the internet shop is based, postage can be expensive. The delivery through the post or courier services is not normally a problem: the equipment is strong enough.

No matter where you buy your floorball equipment, do not be shy to ask questions. This is a piece of advice especially important when buying off the internet. Do not assume things if they are not explicitly mentioned. If you find some information surprising, confirm with the shop. Unfortunately, the product descriptions of some internet shops are not very reliable or informative. If you are unsure of how to proceed, you usually can get help from one of your colleagues in your club. If you are a new club, your national federation should be able to help you get going.

Maintenance

Once you have kitted yourself out with the basic equipment, there are a few things you might need to do from time to time. Maintenance is mostly restricted to replacing worn out parts, or adjusting the stick to your needs.

Changing the Grip

Replacing a floorball grip is a simple process. You will want to replace your grip when it is torn, worn out, or no longer feels comfortable. In contrast to blades, there are no strict regulations as to what kind of grip you are allowed to use.

Choosing a Grip

The easiest and best you can do is buying a floorball grip. They come in the right length, are specifically designed with floorball in mind, and are very easy to put on. You may want to settle for a tennis grip, although most players find them too short, and putting two grips too heavy. Floorball grips are also cut right (beginning and end) and rolled so that you find applying the new grip intuitive.

Material Needed

In order to replace a grip, all you need is the replacement grip.

Procedure

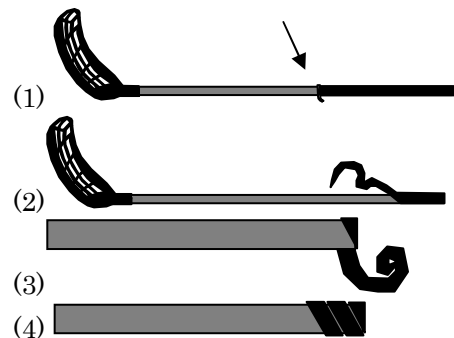


Figure 15: Changing a grip: (1) remove the tape; (2) tear off old grip, (3) start right in a parallel direction, (4) add layers and replace tape.

The actual procedure of replacing a grip is simple. First, remove the old grip. Simply remove the tape at the bottom (1) and tear off the grip away starting from the bottom (2). Next apply the new grip (3). Using a floorball grip is intuitive as the right end is placed outside of the roll when purchased. The grip is ready to apply. You need to remove the plastic backing film, but only remove the film little by little as you go along to avoid a mess. Start at the top of the stick (where the cap is), taking care that the grip is tight and straight. The grip is usually cut in a way that you can apply the beginning of the grip straight to the shaft, without worrying about the right angle.

Simply unroll the grip, sticking it tightly onto the shaft. Always keep the bit you add parallel to the bits already on the stick (4). The different layers should overlap a little, but not more than maybe 2 to 3 millimetres. The sticky bit should always be applied to the shaft, not onto the grip. Once you reach the bottom, use the tape provided to cover the end. You are set to go straight away. If your new grip is longer than your previous one, just use scissors to cut it short.

Changing the Blade

Replacing a floorball blade is a simple process. You will want to replace your blade when any part of it is broken, or the bottom part is too thin (wear and tear). It is important to understand which blades you are allowed to put onto your shaft before going shopping.

Allowed Blades

Not every floorball blade is allowed on every stick. Some people will tell you that everyone mixes blades and shafts, and that therefore it is OK. They are simply wrong. Others will tell you that you can mix blades and shafts freely, as long as they are from the same manufacturer. Unfortunately, they are not entirely correct either.

In order to play floorball, your stick needs to carry a valid IFF certificate. This certificate documents that the stick has passed independent testing. These independent tests not only check whether the stick adheres to the dimensions set out in the official rules, but more crucially are a safety test. In this sense, the IFF certificate is a safety certificate. Note, a certificate is issued for a particular combination of shaft and blades.

All you are allowed to do is to replace the blade with another one also approved for the particular shaft you have. The easiest is to get the same blade you already had. If you want a different blade, you will need to check with the certifier. The Swedish National Testing and Research Institute is the sole certifier, and they have a comprehensive database online (http://www-v2.sp.se/km/en/tech_ser/kmp/floorball/info.asp). Search for your stick (manufacturer and type), click on the certificate number, and you can see

which blades are approved. If you have a recent stick, a blade from the same manufacturer is usually certified and fits.

If you buy a different blade, it might not fit. More importantly, however, you invalidate your IFF certificate, and may at least in theory be sent off for having incorrect equipment. For safety reasons you should never mix blades and sticks that were not tested together. Once you know what blade you want, take care to buy the right side. All blades come in left and right.

Material Needed

In order to replace a blade, all you need is a suitable screwdriver, and a bit of strong glue. A paper tissue and hair-dryer might come in handy, too.

Procedure

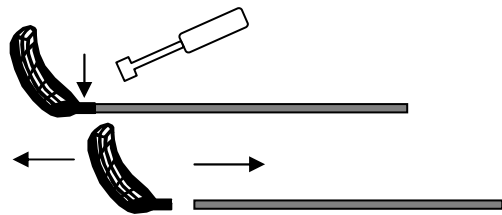


Figure 16: To remove the blade, first unscrew the blade, and then remove the blade.

The actual procedure of replacing a floorball blade is simple. Always make sure you get the right blade (see above). First, remove the old blade. In order to do that, you unscrew the screws. Then you need to physically remove the blade from the shaft. Most blades are also glued on, and you might need to twist and turn the blade to get the blade off. Heating the end of the shaft and blade with a hairdryer, hot air pistol, or hot water might

help. Once the blade is off, physically remove any leftover glue. Put some glue on the end of the shaft and inside the new blade's end. Next, place the new blade onto the shaft, making sure the blade is in the right position. You might need to twist and turn the blade to get the blade on. Heating the end of the blade might help. Getting the position right is particularly important if your stick is not round, but also because of the holes for the screws. Many shafts have a small line indicating the correct position. Once the blade is in position, you may leave the stick for a while for the glue to settle. If there is excess glue, wipe it off with the tissue. After a while, when the glue has settled a bit, screw the screws firmly home. Wait for the glue to settle properly before using your stick again.

Hooking the Blade

Hooking a floorball blade means bending it to give it a certain shape. What shape you want is personal preference. There are probably as many preferences of how to hook a blade as there are players. A good hook can improve your game, but a bad hook can equally cause trouble. Try out different hooks by using different sticks. You can hook your blade again if you are unsatisfied. In this booklet, all kinds of shaping the blade are referred to as hooking. Many make a distinction between *hooking* and *shaping*, with hooking referring to bending over the length of the blade and shaping referring to bending over the height. If you shape the blade both vertically and horizontally, this is often known as *cupping*.

A new hook will take a few training sessions to get used to, but usually not too long. Most players hook their blade in order to improve ball handling and dribbling, or to make it easier to lift balls and shoot high. Indeed, a decent hook improves ball handling, allows you to do certain tricks (better), and may improve your shots. Too much of a hook, or the wrong kind of hook, may lead to poor passing, and imprecise shooting. These days many floorball blades are pre-hooked a little bit (some quite a bit). Please note that the rules limit how much you are allowed to hook the blade. Currently the rules stipulate a hook of 3 cm maximum. The hook is measured when the stick is flat on the floor, and the difference between the blade and the floor may not exceed this maximum. The hook is measured as the distance between the floor and the highest point of the lower side of the blade (see figure 17). With modern hooks, this spot is likely to be in the middle of the blade, towards its front.



Figure 17: The hook is measured between the floor and the highest point of the lower end of the blade.

Indeed, you can hook your blade over and over again, should you prefer to. As long as you hook the blade when it is warm and thus soft, there should be no risk to damage the blade. Whilst most sticks come with a relatively straight blade, they are clearly shaped into forehand and backhand.

If you break or melt the blade, you are no longer allowed to use it. This is worth bearing in mind, as there are certain risks when hooking the blade. Hooking the blade properly, however, does not damage your equipment, and in most cases can improve your game.

Banana Hook



Figure 18: Banana hook

The banana hook is easy to achieve. It allows you to turn quicker when running with the ball, and to perform certain tricks. However, at the same time, such a hook leads to imprecise passing and shots.

Open Face



Figure 19: Open face can be achieved by bending the lower part of the blade forward.

the ball when playing it.

Although some blades come pre-hooked with a certain degree of open face, this is something you can easily modify or add to a straight blade. Open face is achieved by bending forward the bottom of the blade. This allows you to shoot and pass higher more easily. Most players prefer some open face (i.e. not a completely straight blade). However, having too much open face means you shoot over the crossbar, and cannot play precise passes on the floor. The amount of open face depends a large degree on your playing style, and you might want to experiment a bit. Alternatively, try out a hook of your team mates. In figure 19 the blade is illustrated in grey, with the shaft in black. The aim of this hook is to get under

Cavity

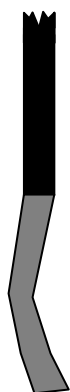


Figure 20: Cavity means enclosing the ball more.

more than what a straight blade can do.

These days, almost all sticks come with some cavity. More cavity can improve feel for the ball, and thus ball skills. In order to mimic the cavity of blades with more, you simply bend forward the bottom and top of the blade a bit. In many cases you can achieve the effect by holding the blade in your hand and squeezing the blade by pressing from both the top and the bottom. In most cases, increasing cavity means adding open face to the blade, and you should consider whether you do not add too much open face. Too much cavity makes some types of shooting more difficult. Figure 20 illustrates this, with the blade in grey, and the shaft in black. The aim is to enclose the ball

Little L

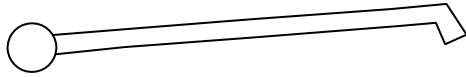


Figure 21: Little L

Some players prefer this hook over the claw. Figure 21 illustrates this hook. The length of the small bit at an angle may be varied, but as always, you need to consider the rules (30mm).

The little L hook means that you bend the tip of the blade. You try to achieve a sudden and rather dramatic hook. It can be achieved by pressing the soft blade onto a hard surface.

The benefit is that you can pull back a ball.

Claw

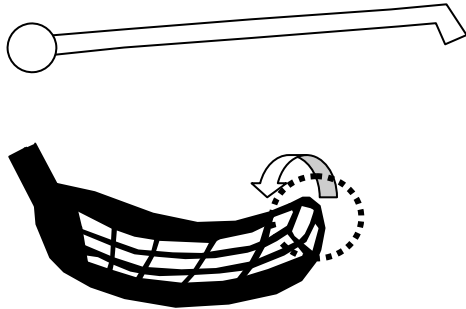


Figure 22: In addition to a little L, the tip of the blade is bent downwards a bit.

useful. What you do in terms of hooking is first shaping a little L hook. You then press down the top of the tip, so that you can grab the ball easily.

A claw can be achieved by hooking the tip of the blade only. You can do this irrespective of how the rest of the blade is hooked. With some blades, adding a claw is difficult when you already added quite some cavity. In this case, make sure that the blade is a bit softer than what you would do when hooking otherwise. It also helps to hook the blade in several stages. Perhaps you want to start at the end, and once the blade has cooled down completely, add the claw at the front in a separate go. The softer the blade, the easier it is to hook in any direction. Watch your fingers, though. The benefits of a claw are that you can pull a ball straight backward. For many tricks this is

Backhand Lift

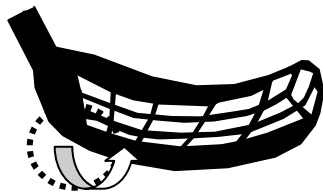


Figure 23: Backhand lift

Make sure the blade is very soft at the end by heating it well, and press the blade on a hard surface to get started. For finishing touches you may want to use your hands. This hook is good for one trick only, so you might not compromise too much on other aspects of your overall hook.

The backhand lift is a hook designed to facilitate backhand shots. Essentially you want to add a bit of open face to the backhand side of the blade. The benefit is that your backhand shots go higher. The downside is that it can be very difficult to have open face on both sides. The trick is to try to only bend the very last bit of the blade. What is more, many blades are very stiff around the end of the blade, so you may struggle to achieve this.

Angle



Figure 24: The angle is bent right at the end of the blade.

You hook the whole blade near to where the shaft is attached. It is easier to do this, if the front of the blade is not soft. Place the blade on a flat surface and twist the shaft a bit. You can also press the blade on the surface at an angle. Make sure the hook is close to where the shaft is attached to the blade.

Most blades are attached to the shaft in a pretty straight way. If your shaft is round, then changing the angle may be meaningless. If the shaft is oval, or any other shape than round, changing the angle adjusts the place

Airhook Basket

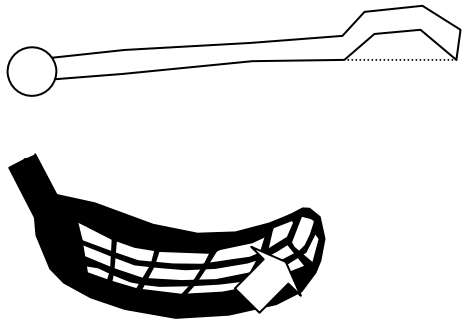


Figure 25: For the airhook, the front of the blade needs to enclose the ball as much as possible.

If you want to do the airhook trick, you need to hook the blade in a particular way. What you want to achieve is a basket for the ball, so the ball does not drop during the trick. A basket is useful for other tricks, too. In many regards, an airhook basket is similar to the claw, but you want to make sure that the bottom of the blade is bent forward almost as much as the top. Some players use a floorball ball, or even snooker balls whilst hooking. Place the ball on the front of the blade, and press it firmly into the blade's tip. Use your hand to ensure a good basket. The aim is to create a pocket for the ball, where the blade totally embraces the ball. Take great care not to exceed the maximum

hook if you want to use the stick in floorball games.

There is also a useful video manual available from the tRixxers, and you may find it on YouTube. Search for “badny” (yes, b-a-d-n-y).

These are just some of the basic considerations when hooking a blade. You may want to combine some of these for your own hook. For example, you may want to have more open face, increase the cavity, and add a claw.

Tools Needed

In order to hook a blade, you need a source of heat, and cold water. You might also want to use gloves or a towel. A suitable source of heat is a hot water, or a hot hair-dryer. A hot air pistol is a quicker alternative, but you might not have one at hand. Hot air pistols can also be more difficult to handle, but are more precise, as you can heat only the particular part of blade you want to mould. Whatever source of heat, watch out for your fingers! Some players use an electric hob as a source of heat. This is very difficult because under no circumstances must the blade touch the hob itself. If it does it will melt: you destroy the blade and have a real mess to clean up. Similarly, if you use an open flame, you may simply destroy the blade (melting).

Procedure

The basic procedure is simple: heating the blade, shaping the blade, cooling the blade. First, heat the blade. You may want to warm up the whole blade, or only part of the blade. Heat the blade from both sides. Make sure the parts of the blade you are going to mould are quite soft. Never hook a blade when it is cold, you only risk damaging the blade, and the hook will not last: the materials used make sure that the original shape is maintained. Once the blade is soft, use your hands to give the blade the desired shape. Many plastics become a bit shiny when they are softened. You might want to use gloves or a towel to protect your fingers. If the blade cools down and moulding becomes difficult, heat it again. If the blade is tough to mould, the blade probably needs to be heated more. Some players use tools, such as blunt knives, to help hooking. This is not recommended for inexperienced players, as you may damage the blade.

Once you are satisfied with the new hook, hold the blade in position and cool it at once. Running cold water is well suited for this job, as is a bucket of cold water. Keep the hook in position until the blade is cooled down properly. Maybe you need to quickly mop the floor, but you are now ready to play. If you hook the blade to a great extent, you may want to measure whether the hook does not exceed the 30 mm allowed by the rules.

Shortening a Stick

First of all, you will want to know whether your new stick is of the right length. See the section on choosing a floorball stick on page 1.

Tools Needed

In order to shorten your stick, you will need a metal saw, and probably some glue, and a bit of tape. Access to a proper workshop might come in handy. A source of heat, such as a hairdryer, might also be necessary at some stage. Many players replace the grip at the same time.

Procedure

Shortening a floorball stick is not very difficult, and should not take too long either. Before you start you should figure out how much you want to shorten your stick. Shortening is only allowed at the top end. Never shorten where the blade is attached to the blade. It is not only illegal according to the rules, but you might end up with an unsafe stick or one where the blade no longer fits.



Figure 26: Always shorten at the top end of the shaft

First, you tear off that lovely grip. Remove the tape at the bottom of the grip and just tear the grip off (see figure 15). Second, you remove that plastic cap at the end of the shaft. Sometimes they are quite tough to remove, but they always come off. If the cap is glued on

(most are), heating the cap might help, or the use of a screwdriver. Be careful not to damage the shaft or the cap.

Third, use a saw (saws for metal are best) and cut off as much as you want. A proper workshop or vice might be useful, as the shaft may slip. Always shorten your stick at the cap end. Fourth, place the cap back on. If it is loose, glue it on. You may also use some strong tape to fix the cap. It is important that the cap is tight. Fifth, replace the grip, starting from the top. The grip should be rather tight. If it does not stick any more, use glue. Alternatively, replace with a new grip. See the instructions on page 13 for more details. Finally, use some tape to fix the bottom end of the grip. You are now ready to play.

Under no circumstances are you allowed to lengthen a stick. Once it is shorter, that is it. If you are unsure, shorten the stick only a little and repeat the procedure.

Goal Nets

In contrast to the goal itself, the goal nets need looking after from time to time. In most circumstances you can repair the nets, but sometimes you will need to replace them. Goal nets that are taken care off will last significantly longer.

The main problems you come across are holes in the net, and the net coming off the goal itself. If the goal net is no longer attached properly to the goal, use pieces of string or cable fixers to attached them firmly again. If you use cable fixers, make sure they are positioned in a way that no rough end may injure players or damage the floor. If there are holes, you can usually use short pieces of string to close down the holes. Rather than trying to replicate the pattern of the net, draw together intact parts to make sure the net remains tight and no ball can pass through.


Many clubs, if they can afford it, have two sets of goals: one for competitions and one for training. The goal nets of the ones for training are in this case used for much longer before a replacement goal net is bought.

If your goals are accessible to other clubs, make sure that they are not used for other sports. You may need to instruct your facility manager. For example, the size of floorball goals makes them useful for small football games. Unfortunately, the extra weight and size of the footballs wears the goal nets considerably.

Costs

Most of the maintenance does not involve any cost other than the replacement part. Replacing parts is in all cases straightforward, and not many extra tools are required. Fortunately most pieces of floorball equipment are durable.

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