

Crotched Mountain Freestyles Ski Gear Buyers Guide

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INTRODUCTION



Buying the right ski gear for your athlete may be one of the toughest decisions you will make all year. With such a wide range of ski equipment options and differing opinions on what makes for the best day out on the hill, buying skis, boots, and bindings can be a daunting task. Don't worry we are here to help! This article will cover the essentials of what you need to know to before buying your gear for the season. From what you will need and why you need it, to the technical specs that make for great equipment, this article will cover it all. We will also be providing you with a list of our top choices for gear for the 2023 season. Let's dive into it!

What you need to succeed!

We will start this article with a list of our freestyle skiing essentials. All of the gear in this list will play an integral part in your athlete's ability to learn and enjoy themselves on the hill. We will be ranking the list in the order of importance, from most important to least, and providing you with a little bit of background as to why we see it that way.



The best way to make sure your athlete has the most enjoyable experience possible, is to equip them properly!

YOUR BASIC SET UP



List of Essentials

1. Ski Helmet 2. Ski Boots 3. Mogul Skis 4. Park Skis 5. Bindings 6. Clothing

7. Ski Poles

Why They Matter

- 1. Ski Helmets The most important piece of equipment in your kit is the one that protects your noggin! While we try our best to avoid them, crashes happen, even to the best of us. A properly fitting, ski rated helmet is a MUST! It is a requirement for your athlete to train with the Crotched Mountain Freestyle Team and to compete in USSA sanctioned events. We highly recommend a helmet with MIPS (Multi-Directional Impact Protection System). These helmets are designed to alleviate rotational impacts and help protect your athlete's neck as well as their head. Check out the links below for information on how to select a helmet!
- 2. Ski Boots Yes, your boots are more important than your skis! Without boots that fit correctly even the best skiers will struggle to control their skis. Your boots are your connection to your skis and without a firm connection, having pinpoint control of what your skis are doing is next to impossible. We see far too many athletes come into the program with boots that are too large and who struggle to learn because of it. You should never buy boots that your athlete will "grow into". It may save you a few dollars now, but it will be at the sacrifice of what could be years of development lost for your athlete. Check out the links below for more information on how to size your ski boots!
- 3. Mogul Skis I am sure most of our athletes is more concerned with which park ski they get to rip it up on, but mogul skis are easily the more important of the two. The reason being that turning is the most important aspect of skiing there is, and park skis are not built with the intention of carving a great turn. While race skis might be the best built ski for carving turns on freshly groomed terrain, mogul skis are best suited for teaching turn technique in any and every situation a skier might find themselves in. Learning to make crisp, clean turns is the foundation of everything that makes for a great skier. Check out the links below for more information on what ski shape and size is all about!
- 4. Park Skis Having a solid set of park skis can turn a boring day on the hill into an absolute blast. Conditions are not always perfect and when it's time to mess around in the woods, or send it off some jumps and rails, having a pair of park skis can make or break your day. Most skis are not built with the intention of getting beat up all day and coming back ready to take another licking the next. Park skis are! From sliding on rails, sending it high into the air off a big old park booter, or eating up roots and rocks in the trees, park skis can take it all and keep on going. Our athletes are no strangers to seeing the guys and girls at the X-games taking it big and park skiing quickly becomes a skill set that want to learn. We try our best to make sure they get their fill. Check out the links below for more information on what ski shape and size is all about!

- 5. **Bindings** Bindings may be lower down on the list but they are not something to be overlooked. Having a good set of bindings can be just as important to your connection with the ski as having a pair of boots that fit well. Making sure that they are appropriate size and set to the correct DIN is one of the best ways to help prevent ski injuries. Always have your bindings mounted and set by your local ski shop! Check out the links below for more information on what bindings are all about!
- 6. Clothing What's the fastest way to ruin your ski day? Not wearing the appropriate clothing! Snowsports are a unique category in the fact that we battle some of the most adverse weather conditions of any sport out there. It is not uncommon to find skiers battling subzero temperatures and high winds just to snag a few more runs. The clothing that you decide to wear can be your best friend or your worst enemy. Dress your kids like you would dress yourself!
- 7. **Ski Poles** Ski poles might be the trickiest piece of gear that you will buy. While it's easy to choose a ski pole, getting one that is the correct length for freestyle skiing can be a challenge. There isn't much wiggle room for choosing the correct size pole. Slightly to long and your athletes' pole plants will have their hands shooting up over their heads in the moguls. A little to short and your athlete will be curled over trying to get their pole plants to the ground. Watch the video in the sizing your equipment section but take it with a grain of salt. Freestyle skiers' poles will be shorter than those of the average skier. We will dive deeper into Freestyle pole sizing in the "What To Look For" section.

Sizing your equipment

In this section you will find links to additional information to help you size your equipment properly! Choosing gear that fits appropriately is just as important as the gear you choose. Most of our athletes should consider themselves advanced or expert skiers. If this is your athletes first season with the program, they may consider themselves intermediate skiers to start the season, but they will quickly advance to the advanced level of skiing and should have the gear appropriate for their new level of skiing ability. Check out these helpful videos from Evo!

- 1) Ski Helmets & Goggles Ski Helmet Sizing / Ski Goggle Sizing
- 2) Ski Boot Sizing Ski Boot Sizing
- 3) Ski Sizing and Types of Skis Ski Sizing and Specs
- 4) Bindings Ski Bindings
- 5) Ski Poles Ski Pole Sizing

WHAT TO LOOK FOR AND



WHAT TO AVOID

What Makes for Good or Bad Freestyle Equipment

Ski Helmets

Look For

Helmets come in all shapes and sizes and are designed for a large variety of sports and activities. Make sure to look for helmets that are designed specifically for skiing. Helmets that include a BOA Fit System or similar adjustments will help to ensure that your helmet will always fit as snugly as it is intended to. Helmets that include MIPS. The Multi-directional Impact Protection System will not only help protect your athletes head from the blunt force of the impact but help protect your athlete's neck by allowing the outer shell of helmet to rotate around the core of the helmet that is in contact with their head.

Avoid

Helmets that are cracked, broken, or have taken more than 1 or 2 significant impacts. Most helmets are designed to protect you for one significant impact before needing to be replaced. Try to avoid helmets that are more than 3 years old. Helmets have a useful life of around 3 years before the components of the helmet start to break down and the helmet does not offer the same level of protection that it was intended for. Helmets that do not fit properly. If your athlete has a helmet that is too small the helmet does not cover the parts of the head that it is supposed to and can be next to useless in a crash. The same goes for helmets that are too large. Bouncing your head off the inside of the helmet isn't much different than bouncing it off the ground. If your athlete can fit more than a thin balaclava beneath their helmet, then it is too large. Beanies, goggle straps, or baseball caps should not be able to comfortable be worn with an appropriately sized helmet.

Goggles

Look For

Goggles should be well fitted as with all of our equipment. They should be fitted first to the size of your athletes face then secondly to the helmet that your athlete will be wearing. Goggles come in roughly 3 main sizes, bring your ski helmet into the shop when buying goggles and try on a number of different shapes and sizes to find the right one. Interchangeable lenses can also make a huge impact on the quality of your ski day. Darker lenses such as red and black tinted lenses are well suited for bright sunny days, while lighter rose or yellow tinted lenses allow for a higher rate of visibility on overcast days.

Avoid

Goggles that are too small or too large. Goggle gaps are great sign that either your athlete's helmet or their goggles have been sized incorrectly, and goggle gaps are cold! Goggles that are sized incorrectly can leave you with a cold head and poor vision, neither of which will make for an enjoyable day of skiing. Avoid single lens goggles. Yes, they still exist. A single lens leads to foggy goggles and foggy goggles leads to a lack of vision. Old googles! The easiest way to determine when a new pair of goggles is needed is the quality of the foam on the interior of the goggles. If that has started to break down, then it is probably time for a new pair.

Ski Boots

Look For

Fit, Fit, and Fit! The most important thing to look for in your athletes boot selection is the appropriate fit. Even if you are buying used boots, you should always visit a ski shop get fitted for a boot and give your athlete a comparison for what their boot should feel like. Especially when trying on a brand-new boot at the beginning of a ski season, they should feel tight and slightly uncomfortable. Boots will pack out and loosen up a little bit even after a few days of skiing as the liner gives away to pressures from your foot. There are two types of fits for boots. "Competition Fit" and "Comfort Fit". Comfort Fit is your standard boot size, these are boots that are fitted properly but can still be worn with a large amount of comfort, hence the name. Competition Fit is your standard boot size, minus one size. All high-end competitors, especially in the racing world are wearing a Competition Fit boot. Remember the tighter the boot, the more control you will have over the ski. For our older athletes that are serious competitors this could be something worth giving some thought to. Athletes that are in a half size may also want to consider looking at a Competition Fit boot as well. A boot that is a little tight is better than a boot that is too loose. Our pro tip of the day when sizing your athlete for boots is to first have them try on a boot that is Competition Fit and then have them try on a comfort fit second. The chance that your athlete finds the comfort fit boot more appealing and "comfortable" is almost a certainty, and they will still be in the correct size of boot! This is much better than having them try on a comfort fit boot and then sizing them up into a boot that doesn't actually fit but they say is more comfortable. A few other things to look for are the flex rating and forward pitch of the boot. Freestyle skiers tend to enjoy a slightly softer boot with a lower flex rating but for higher level skiers this can become a preference. A stiffer boot offers more control and reactive input from the skier to the ski. The biggest thing to look for is. Can your athlete flex their boot? Especially for our younger athletes not being able to flex their boot can be extremely detrimental to their development. If you have questions about what level of flex your athlete's boot should have try to compare the numbers to the boots in our list of suggested equipment. Although boot flex is not standardized across the market the flex ratings remain generally consistent between the high and low ratings. Forward pitch in a boot is more important to look at in Jr boots than in the adult versions. This could be a deciding factor for your Jr ski boot though. Especially in older model boots Jr or beginner boots tend to stand you very upright. This means that the upper cuff of the boot stands up more vertically if the boot is placed with the bottom flat on the ground. As opposed to an expert boot where the upper cuff of the boot will lean you forward towards the toe of the boot. Always look for boots with a forward pitching cuff. Our final suggestion on boot selection involves the boot liner and this is more of a personal recommendation than anything else. Intuition wrap around liners are, in my opinion, the best boot liner that you can have. Once I made the switch to them, there was no going back. The wrap around liners adds a layer of warmth and comfort that I have never found in a liner with a tongue.

Avoid

There isn't much to avoid that hasn't already been discussed in this article, but we will reiterate that the fit of your ski boots is everything. Avoid buying boots that your athlete will "grow into" that is one of the biggest mistakes that you can make when selecting your gear. If your athlete is totally "comfortable" when trying on new boots they are probably too large. Even after years of knowing my correct boot size I still try on new boots at the beginning of a season and worry that they may be too tight. Make sure to get your boot size correct and the rest your athlete can work with. One last tip is to let the person fitting your boots know that your athlete is competitive freestyle skier. This should go a long way in making sure that you are getting the correct equipment.

Mogul Skis

Look For

While not as widespread as other types of skis and a little harder to come by there are lots of options for mogul skis. The most important thing to look for when shopping for mogul skis are the dimensions of the skis side cut. A typical mogul ski will have dimensions similar to this, we are using the side cut of the Faction "Le Mogul" for this example. It has a tip-waist-tail dimension of 100-66-90. Side cut is what truly defines a ski as a "mogul ski". Another thing to think about when buying a mogul ski is the flex rating of the ski. Skis with a softer flex tend to be more forgiving when your skiing technique is less than perfect. While stiffer skis will provide your athlete with a more reactive skiing experience. The stiffer ski will be less forgiving, but when utilized with good turning technique will provide more power and explosiveness in your athletes turns. A stiffer ski will also see a longer life span, especially in our more advanced athletes. Personally, I have destroyed a number of softer mogul skis in half a season and while I love the feel of a softer ski, skiing softer skis at the higher levels of mogul skiing is not an option if you want to avoid constantly buying a new set of skis. Here is a short list of a few of the mogul skis that are available on today's market. In no particular order we have.

- ID One (offers multiple variations of their ski according to size and flex)
- Faction "Le Mogul" (Available in Jr sizes)
- K2 "244's"
- Fischer "Gun Barrels"
- Elan "Bloodline" (Available in Jr sizes)
- Rossignol "Hero Mogul" (Available in Jr sizes)
- Hart "F-17 Fusions"

Avoid

Park skis! Twin tips make for terrible mogul skis. Even the best mogul skiers will struggle to tackle a bump field on a pair of twin tips. Getting a ski that is dedicated to the bumps and learning to turn will ensure that your athlete has the best season possible. Super stiff adult race skis are slightly better than a park ski but still do not perform well in the moguls for a true bump skier. Skiing race skis in the bumps for your average skier is a whole topic of its own but we won't be getting into it in this article.

Park Skis

Look For

When it comes to park skis there seem to be an endless number of styles and good options. There are a few key differences that can make your park ski great though. The first and most important thing for any east coast park skier is to look for a ski that is cambered underfoot. We will get into fully rocker'd skis below. The second thing to look for is what makes a park ski a park ski, twin tips! We all love riding switch and doing so with any amount of confidence demands a twin tip. Soft or stiff skis would be next on the list and a choice for this option will be best made by what your athlete likes most about the park and their level of experience. All of the same principals we talked about between soft and stiff mogul skis apply here as well but with less of a potential impact on your skiing performance. When sliding on rails a soft ski is typically preferred, but not always. The more advanced you get the more you may enjoy a stiff ski even on the rails. When learning to jump and spin a soft ski may also be preferred for its forgiving nature on your imperfect landings. The advantage to a stiffer ski comes when your athlete is "chucking it big". A stiffer ski will happily put up with the abuse it will take while slamming down on rails and large jumps while adding a

little bit of extra pop in your take off. My final piece of advice if you can't choose between soft or stiff skis, is to go with something in the middle to the slightly stiffer flex range as you will get the best of both worlds. Like ski boots there is no industry standard for ski flex but taking the general manufacturers ratings into account can help you choose the best park ski for you.

Avoid

While full rocker skis may be great out west on those deep powder days, they cannot set on edge on the classic east coast ice that we are skiing on constantly. Avoid fully rocker'd skis unless you plan to spend a lot of time in the deep stuff. Unless you are really serious about the park or don't care about buying new skis, avoid the most high-end park skis on the market. We try our best to treat our mogul skis well but with the nature of park and woods skiing they will get used, abused, and broken. Expect this and you should have no issues!

Ski Bindings

Look For

The correct DIN range for your athlete's size and skiing ability! Your local ski shop will be able to help you determine your athletes appropriate DIN setting. Take note that high level competitors do tend to take this suggested and turn in up a few clicks. Most long time competitors get to a point in their skiing ability where having your ski fall off when you don't want it to, can be more dangerous than your ski not coming off in a crash. If you have any doubt about whether or not that is your athlete, please abide by the suggested DIN settings. Ski bindings come in a range of DIN settings; most bindings are listed with their top DIN setting right in the name. For instance, the Look Pivot 12's has a top DIN setting of 12 and a low of 4. If your athlete should be set at a DIN of anywhere between 6 and 10 this could be an appropriate binding for you. Ski break width is another important thing to look out for. Most ski bindings offer a range of break widths to accommodate a variety of skis, and this is something that your local ski shop should check before selling you a pair of bindings and mounting them to your skis. Your ski break width shouldn't be more than 15mm wider than the waist width of your skis.

Avoid

Choosing a binding where your athlete is at, or near, the top or bottom of the DIN range. Bindings work best when you are somewhere in the DIN range for that particular binding. For instance, I am typically setting my DIN at a 9 or 10. At my weight and the aggressive nature of my skiing I have broken multiple pairs of Pivot 12's by skiing to close to the top of the range that the binding can handle. Know your DIN before buying your bindings. Choosing a binding or break size that is too wide for your skis. On mogul skis you may even be able to choose an entire binding that is too wide! Not sizing your ski break to the ski, you are on will leave you catching your breaks on the snow while skiing causing you to crash, or worse bend the ski break into the ski causing it not to release and send your ski rocketing down the hill.

Ski Poles

Look For

Poles that are the correct length! This may seem like a simple thing to do but sizing your athlete for freestyle poles can be extremely challenging. For instance, I am 5' 8" according to a typical pole sizing chart I should be skiing with 120cm long poles. My preferred pole height is 110cm. This may not seem like a lot until you realize that there is a difference of 4" in pole length and the poles that I ski with are "sized" to fit skiers from 5' 1" to 5' 3"! There are a few ways to figure out what the correct pole height should be for your athlete. The easiest method is taking your ski poles, flip them over so that the handle of the pole is on the ground, and compare the height of the pole basket to your athlete's belly button while they are standing up right. The poles should be directly in line with your athlete's belly button for the perfect fit. For all of you mathematicians another way to calculate this would be a pole height of roughly 65% of your athlete's total body height. The difference that an inch makes in the length of pole still astounds me and the rate that it effects the way you ski would boggle your mind. Take some time to make sure that your athlete has the correct ski poles!

Avoid

Adjustable poles. I know that they seem like a great way to make sure your athletes' poles will be fitted correctly but I have not seen a single pair of adjustable ski poles that can stand up to a survival plant without collapsing. Adjustable poles may be great for the everyday skier, but they are not fit for a competitive athlete.

OUR TOP CHOICES FOR 2023



Our top choices for gear took a number of factors into account. However, the top 3 factors that lead us to choosing this gear were, the quality, the price, and the availability of each of these items. We will also provide you with links to the gear from evo.com that have full descriptions of the equipment. Most of the gear on this list will be available at Ken Jones Ski Mart.

Top Choice Ski Boots

#1 - K2 FL3X Revolver Pro 2023



<u>Revolver Pro Women's</u> Revolver Pro Men's

Coming in hot at the number one spot is the new K2 FL3X. K2 will be taking over the Full Tilt boot line that we have all grown to know and love but I am happy to say that not much about the boots has changed. The Revolver Pro will be replacing Full Tilts Drop Kick Pros. Offering the ability to be fully molded, shell and liner, this is a boot that can be easily customized to fit any foot out there. Sporting a 3-piece design, wrap around intuition liner, 3 buckle system, and interchangeable tongues. This boot is hard to beat. The 3-buckle system allows for a highly flexible boot that secures your foot in the most important location, directly across the top of your ankle. The interchangeable tongues allow you to remove and replace the tongue at different flex ratings so that you get the exact amount of flex that you are looking for. The Revolver Pro is available in a men's (as seen on the left) and women's version (as seen on the right) ranging in sizes from a 24.5 to a 30.5 for the men's and from 22.5 to 27.5 for the women.

#2- K2 FL3X Evolver 2023



K2 FL3X Evolver

Taking the number 2 spot is a boot designed to closely match the Revolver Pro but is available to our younger athletes who may not fit within the size and flex ratings of the larger boot. Sporting all of the same features as the Revolver Pro minus the wrap around liner this boot offers up everything you would expect from a top of the line freestyle boot and at a slightly lower price point. The Evolver comes in with a lower flex rating then its big brother or sister, but this is to be expected as it is designed for smaller athletes. The boot still offers the ability for you to swap out the tongue for a higher flex if you desire. They are offered in sizes from a 22.5 to a 26.5.

#3- Rossignol Hero Jr 65

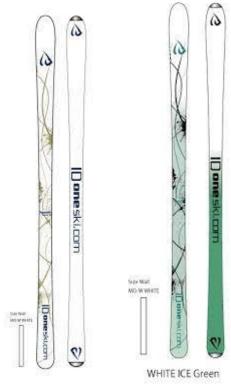


Hero Jr 65

Our number 3 boot on the list rounds out the full-size range of boots that our athletes may need. If your athlete doesn't fit into either the Revolver Pro or the Evolver this a boot that you should be searching out. The Hero Jr 65 is a great cross over boot being offered in sizes as low as 19.0, it can span the gap between an entry level boot and skiers that are ready for a higher level boot. The Hero Jr 65 offers a soft flex rating and great forward pitch for a smaller boot. This boot is designed for all of the little rippers out there who have outgrown the need for a beginner boot but haven't necessarily outgrown the sizing of those boots.

Top Choice Mogul Skis

#1 - ID One Mogul Skis



ID One Mogul Skis

Topping the list this year is the biggest name in mogul ski manufacturing. This company has been revolutionizing the mogul ski market over the last few years and you will find most of the world cup competitors riding on a pair of these. As a smaller company they have been known for coming in at a higher price point than most (ALL) of the skis on the market, but this is beginning to change. They are still coming in at a higher price point than most but not by much and you will absolutely get the most bang for your buck with a pair of ID Ones! An added bonus to these skis is that they are highly sought after and hold a fairly significant resale value compared to the price. These skis come in range of flex ratings and styles that build off of their core design and have the widest variety of sizing options out there. ID One has a mogul ski for everyone. Offering skis as short as 130 cm they are making the ever-elusive Jr mogul ski widely available. For that fact alone they could top this chart! Without it they are still the best mogul ski available today.

#2 - Faction Le Mogul



Faction Le Mogul

Coming in at number 2 is the Faction Le Mogul. Faction has recently been making their way into the mogul ski market, and they are doing it well. Offering a true mogul ski that is light, reactive, and playful, Faction seems to have their mogul skis dialed in. While inventory from faction is a little low this season, this ski can be still be found in a range from 140cm to 179cm. It has been a popular ski with many on the team over the last few seasons and we only expect that popularity to grow.





The K2 244 is making the list at number 3 for one simple fact. Price! They may not offer as wide of a range of sizes as some of their competitors, but the price really is hard to beat, and these are still a great mogul ski. With a slimer side cut than the Le Mogul and just as much pop and playfulness, they have been a favorite of two of our coaches for a long time running. If you are in the 153cm to 176cm range and are struggling to find a mogul ski that you like, you can't go wrong with a pair of 244's.

K2 244

Top Choice Park Skis

#1 - Volkl Revolt 86



Volki Revolt 86

#2-Faction Prodigy 1



The Volkl Revolt is a re-branding of the Volkl Bash which has been on the market for a number of years now. This is fantastic ski choice for many of our younger athletes. The Revolt offers a shape and camber that will allow your athlete to have a fair amount of control in there turns, and that is one of the biggest reasons that it has made the top spot on our list. The Revolt is offered in a variety of lengths and side cut options. The number after the Revolt is an indication of the underfoot measurement of the ski. Our second choice in this lineup would have been the Revolt 84 which has a slightly slimmer, symmetrical, side cut. Having a little bit more width in the tip though the 86 should offer a feeling of a ski that has a little more "carvability". Want to get extra wide with your skis as you plan to get the most use out of them on powder days? The Revolt is also offered at a super wide 121 under foot! We recommend staying on the thinner side, but this line of skis has something for everyone!

Coming in at an extremely close 2nd place is the Faction Prodigy 1.0. Honestly this list could have gone either way and we had a hard time placing one above the other! Faction offers the Prodigy in a variety of lengths and side cuts remarkably similar to the revolt. If you can't find a ski you like in this line up, you are going to have a hard time shopping. One of the coolest features of this ski is that Faction has added in some extra width to the edge material used in the ski. This allows it to set deeper into the core of the ski making for an extra durable edge that your athlete will have tough time ripping out! In my opinion Faction has the cooler graphics and some incredible features but the small differences in the side cuts of the revolt and the easy to understand naming of the skis gave it the edge, but these skis are neck and neck on this list.

<u>Faction Prodigy 1</u> **Top Choice for Ski Bindings**

#1 - Look Pivots



<u>Look Pivot 12</u> # 2 - Marker 7.0 or 4.5



Marker 7.0

These are hands down the best bindings on the market! The Look Pivots were an easy decision for our number one spot. Offering up a unique technology that is the top of the line when it comes to ski bindings. The Look Pivot gets its name from its ability to do just that. The heal and toe piece of these bindings will pivot from side to side to release you in a fall. This can be crucial to have when it comes to saving your knees. The Pivot is offered in a variety of DIN ranges from the Pivot 12 all the way up to the Pivot 18. They may be a little more expensive than other options on the market, but they will last! I typically ski one pair of theses bindings over the life span of 2 or 3 skis. These bindings will do for anyone that is ready to step out of a junior binding and into the adult range. Their sleek design fits as well on a mogul ski as it does on a park ski, and in my opinion, they are some of the sharpest looking bindings around!

For those athletes that are still in the junior binding size the Marker 7.0 Junior bindings are an excellent choice. These bindings have been around for a long time and are tried and tested. They are extremely light weight and like the pivot offer a sleek design that will fit on any ski. They are offered at a 4.5, 7.0, and 10.0 DIN range. We are throwing the 4.5 and 7.0 on the list, if you are in the DIN range to be on the Marker 10.0 you should be looking at the Pivots! If you can't fit on the Pivots quite yet than these are the bindings for you.