



RACE EQUIPMENT GUIDELINES

Proper fit, function and condition of equipment is a critical component to success. Equipment below is listed in priority. The right ski boot and proper fit is the most important piece of equipment in order to develop ski skills.

Don't feel you have to get everything all at once. Some of the extras like speed suit, chin guards, shin pads, etc. can be acquired once the season is underway. There always seems to be gear exchanging hands.

U8-10 Equipment

Much of the information below in the U12 section can be scaled for our younger racers looking to be competitive in these younger disciplines. We often have athletes who are entering the sport and testing the waters in a variety of ski gear. Some have race equipment, and some have more recreational equipment. Do not hesitate to talk with a coach if you have any questions.

U12 Equipment

SKI BOOTS

Boots are priority #1, if in doubt for flex try the “jump test.” Your athlete should be able to jump standing and land in a brief flexed position. (no need to hold it, they just need to be able to flex the boot with pressure).

Four buckle front entry race boot for U10-12.

Considerations and terminology for race boots:

FIT

As snug as possible without compromising room for the toes. A ski boot should be snug while wearing a thin sock and not allow excessive heel movement up and down.

Buy for current foot size, not next year or for room to grow. You are better off buying a used pair that fits now than a new pair that is slightly too big.

FLEX

Most ski boots have a flex between 60 and 120. U12s should be on 60 or 70. If they are a big for their age sometimes a 90. Flex is determined by weight as much as ski ability. An active skier who moves a lot can use a stiffer boot than a heavier skier that doesn't bend their legs or push on the cuff as much.

SKIS & BINDINGS

As with boots, all aspects of skis and bindings must be well-suited to the athlete. The biggest myth about race skis is the height of the skier determines ski length. It does not. Ski length is decided by skill level/skiing ability/leg activity level and the skier's weight.

Slalom skis are needed in U12, Free skis or Powder skis for days with 10cm or more of new snow is optional but will enhance the fun factor on those days. GS skis are optional but enhance GS training. The bindings should have the appropriate DIN range. For most U12s that means a 3 to 10.

Considerations and terminology for slalom skis and bindings:

LENGTH

All manufacturers have slightly different lengths for each basic size (139cm/142cm etc are all considered 140cm skis).

80% of all U12s use 135cm to 140cm slalom skis. Lighter or heavier than average kids or considerable differences in ski ability would have SL skis sizes shorter or longer than 135cm or 140cm.

RADIUS (SIDECUT)

Junior slalom skis are built with a suitable metre radius for the lengths. Most U12 slalom skis are between 8m and 10m. (GS around 17m).

SKI CONSTRUCTION

Junior race skis are a step up from the child models, but are still less material in the construction than adult models (usually an extra layer of metal just under the top sheet). This keeps the flex of junior skis matched with weights of small racers. It also helps to keep the skis light weight.

Below is a basic size chart going only by weight. A more active/athletic skier (leg movement/joint bending could go longer and vice versa).

U12 SKI SIZE CHART

Size	Weight	Slalom
S	55lb – 65lb	130cm
S – M	65lb – 75lb	135cm
M	75lb – 85lb	140cm
M – L	85lb – 100lb	140cm
L	100lb – 115lb	145cm

* These are guidelines. Individual manufacturers may have slightly different recommendations.

POLES

Poles are not nearly as important as a proper fitting boot or the right flex and length ski, but poles do need to be the right height. See below for sizing guidelines. There is a big trend to use the click in systems instead of traditional straps. Click in systems work okay but sometimes a lot of fiddling around trying to click in happens. A good race pole has a rubber grip with a regular buckle strap (that is done up the proper way so the strap is not folded over) and a smallish basket. They do not need to be bent for aerodynamics/tuck position.

Sternum height. 90 degree arm bend when holding pole upside down under basket. Account for extra ski, binding riser plate, and boot height. Pole hand guards are for tall slalom gate training only. Second year U12s should consider getting some as the U12s do begin to train with full size gates near the end of the season.

Once in U14 all slalom gates are full size and pole hand guards are needed. Poles must have baskets. Higher grade alloy is best (race poles stronger than some regular poles that bend easily).

HELMET, GOGGLES & SHIN GUARDS

Rules require the use of a hard-eared helmet in GS at races.

U12s may wear chin guards in slalom but must be removed for GS.

Always take care of your goggle lenses by storing them in a soft bag and never wipe the lenses, especially the inside with tissue paper.

Mouth guards are optional but are fine to wear while skiing! Shin guards can be for slalom only.

UNIFORM & CLOTHING

- Speed suits can be worn for all training days, but not mandatory.
- Zip off pants.
- Training shorts and a vest (optional) is a great way to ad race simulation to regular training.
- Think of dressing to be doing an outdoor winter workout. You need to stay warm, but you also have to be able to move.

ON-SNOW ITEMS EVERY U12 NEEDS

Don't feel you have to get everything all at once. Some of the extras like speed suit, chin guards, shin pads, etc. can be acquired once the season is underway. There always seems to be gear exchanging hands.

- SKI BOOTS – 4 buckle overlap design. Tight yet comfortable fit.
- SLALOM SKIS – see weight size guide
- HELMET – must be hard shell over ears
- POLES – straight shafts with straps on handles
- SL SHIN GUARDS – if guards too long (hits boot instep) cut them down
- SL CHIN GUARD – for slalom gate training
- SPEED SUIT – look for a used one
- GOGGLES – keep the lens protected in a bag
- SKI GLOVES – mitts for extreme cold
- JACKET
- ZIP OFF PANTS

OPTIONAL ITEMS

- EARLY SEASON “ROCK”SKIS – slalom skis preferred !
- GS SKIS
- TRAINING SHORTS

OFF-SNOW ITEMS

This is a great time to get your athlete acquainted with their own ski maintenance, start with them waxing first (they love that).

WAX AND TUNING KIT

Basic kit, warm and a cold wax, iron, plastic scraper, File, File guide 93 degree, diamond stone 400 grit.

U14 Equipment

SKI BOOTS

Most racers at this age will use a boot with a 65 – 90 flex rating. Proper fit and flex are essential. Remember you want the boot to flex.

SKIS

U14 racers should have both SL and GS skis. A pair of all-mountain/powder skis for free skiing and powder days is also highly recommended.

Each ski brand will have specific ski sizing, here is a general sizing chart.

U14 SKI SIZE CHART

Weight	SL (cm)
85 – 100lb	135
100 – 115lb	140
115 – 125lb	150

* These are guidelines. Individual manufacturers may have slightly different recommendations.

POLES

Must have either straps or a clip-in system.

HELMET

Must be FIS-approved. This is indicated by a 'FIS' sticker on the helmet.

OTHER EQUIPMENT

Speed Suit: Highly encouraged at this age. Training shorts that go over a speed suit are very useful but not required.

Protective Gear: Slalom shin guards, chin bar for helmet. A back protector (Required for any super G, downhill, skier cross race, or big mountain event and is a good idea at all other times).

Goggles: Goggles that fit well with the helmet and are comfortable. An extra lens or set of goggles is helpful but not mandatory.

U16 Equipment

BOOTS

Most racers at this age will use a boot with a 90 – 120+ flex rating. Proper fit and flex are essential.

SKIS

U16 racer require both SL and GS skis. Super G skis are suggested. A pair of all-mountain/powder skis for free skiing and powder days is also highly recommended.

Each ski brand will have specific ski sizing, here is a general sizing chart.

U16 SL & GS SKI SIZE CHART

Weight	SL (cm)	
<115lb	143	
<130lb	150	
>130lb	156	
>140lb	156	
>150lb	156	

* Second year boys should consider 188am or 191com 30m Radius

* These are guidelines. Individual manufacturers may have slightly different recommendations.

U16 SUPER G SKI SIZE CHART

Weight	Super G (cm)
<130lb	185
>130lb	195
>150lb	202

*U16 Super G must have a minimum 30 meter radius and a minimum length of 183cm

POLES

Must have either straps or a clip-in system.

HELMET

Helmet must be FIS-approved. This is indicated by a 'FIS' sticker on the helmet.

OTHER EQUIPMENT

Speed Suit: Essential at this age. Training shorts that go over a speed suit are very useful but not required.

Protective Gear: Slalom shin guards, chin bar for helmet. A back protector (Required for any skier cross races and is a good idea at all other times).

Goggles: Goggles that fit well with the helmet and are comfortable. An extra lens or set of goggles is helpful but not mandatory.

WHERE TO FIND GEAR

Finding the right gear is essential, but not everything needs to be purchased new. Secondhand gear in good working order is excellent. If you purchase used skis, please have the bindings inspected and boots fit to the skis by a professional.

Within the club we have often have gear... let a coach know what you are looking for!

Local Shops

It is always great to shop and support local businesses. These shops tend to cater to racer equipment in our area

- Sports Creel
- Alpine Haus
- Ski Swap
- Team Gear Exchange Days