



Parent's guide on ski racing equipment for U10 and U12s

Alpine skiing is a “gear intensive” sport but does not require you to buy expensive stuff all the time. The following should help you in deciding what equipment is important for your youngster for the formative years of their ski development.

CSC encourage families to buy only one pair of race skis per year for the early years of racing starting with Slalom skis. Freeride skis with an under-the-foot measurement of approx 90mm (boys) and 80mm (girls) is necessary. Freeride skis have similar radius as GS skis and will be used as the choice of ski on technical freeski and course training days. Both these may be new or used but should come from any of the well known suppliers out there that support ski racing e.g. Fischer, Salomon, Atomic, Dynastar, etc.

Always look for equipment that was designed for junior racing as opposed to recreation gear. All junior racing products have been designed specifically with junior racing speeds and athlete sizes in mind.

Guidelines for sizing

- It is beneficial to go shorter rather than longer when choosing length for the entry-level racing participants.
- A shorter ski will facilitate turning, allowing quicker progression of basic skills and definitely increasing the athletes' enjoyment of skiing.
- The ski should be between the nose and the top of the forehead for entry level participants.
- Longer skis may be appropriate as skill acquisition occurs. Purchasing skis that are too long may impede skill development in the long term.

Ski Boots - General Mechanics

A distinction needs to be made with respect to performance and comfort factors in boot fitting, keeping in mind that there are 2 options in boots for the entry level athlete; rear entry and overlap design.

Overlap design has a cuff that articulates with the lower shell using a hinge at the ankle joint. This design provides performance for the entry level participant by allowing natural ankle flexion, due to the hinged cuff of the boot.

The overlap design also allows for lateral action of the lower leg, a critical factor in skill development.

Rear entry design is comprised of a single piece of plastic encompassing the foot. This design provides warmth, and is considered to offer a comfortable fit. Rear entry boots are not however recommended for racing.

Boot Flex

For the entry level, a softer boot will be more effective than a stiffer boot, due to strength limitations and skill level.

- To determine if a boot is soft enough, you should be able to see the forward boot flexion happening in the upper cuff simultaneously with the lower leg.
- If the lower leg moves forward and the upper cuff moves very little, then the boot is too stiff.
- The boots should not inhibit the natural alignment of the athlete.

Boot Size

Growth of the participants' feet during the season needs to be considered, but similar to skis, buying boots oversized is counter-productive for both performance and fit.

Boots that are fitted poorly have the potential to cause bone spurs and possible medical problems in the long term.

Foot beds

These are important factors for performance but at the entry level, foot beds do not play an important role due to growth and cost factors.

Helmets

All race training program participants, competitors and forerunners are obliged to wear a helmet that conforms to the [regulation competition equipment specification](#). Helmets used shall be specifically designed and manufactured for the respective discipline and shall bear a CE mark and conform to recognized and appropriate standards such as EN 1077, CEE 1077, ASTM 2040.

Helmets should not be modified in anyway as this may impact on its integrity, for example being mounted with a GoPro, etc.

Gloves

Waterproof, windproof and not too tight on the fingers. It is also worth thinking about a thin silk inner glove as these will add warmth on very cold days and offer cold protection to skin if a bulkier glove needs to be taken off to adjust equipment. While mitts can be useful on very cold days they can make holding a ski pole firmly difficult to achieve.

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