



Ski Boots ... connected ... or not ? A little insight and opinion ...

Most of what we experience as skiers is connected or relayed through the link between our bodies and the skis that propel us down the mountain ... the ski boots.

A very good high performance fit is essential to to a young skier's success while learning and developing their skiing and ski racing skills. Truthfully, I've lost count of the number of times over the years that I've realised; the skills we are attempting to teach and the performance level that we are attempting to achieve are severely inhibited by the boots on the feet of the ski racers we are coaching.

As many of you have experienced, getting a high performance fit for your child is a real challenge. In most cases the stores will fit for performance, not high performance. When still ski racing a bit, attending college and beginning my ski coaching career I simultaneously worked in ski shops as a boot fitter, about 5 seasons. I know from experience that most kids given a high performance fit will at first whine and moan, preferring their slippers to a real ski boot experience. Ultimately their choice of course ... my comment as a coach on that account is very direct and to the point "If you want to ski poorly and go slower than your potential because your ski boots do not fit ... up to you ... but why not give yourself the best opportunity possible to be the fastest you can be?

In defence of the retail stores; the problems originate with the manufacturers. The manufacturers make boots with sizes designed for average fit, not high performance. All manufacturers make boots designed with the potential for high performance, if size is chosen correctly and high performance adjustments are made just about any boot brand and model can be made to allow for high performance.

In defence of the manufacturers; the foot has so many perceptible and imperceptible variables that can not be accounted for with a general sizing method ... length, width, volume (height of instep) high arch, low arch etc... Manufacturers can not realistically provide a high performance sizing variety ... and stay in business.

So Many Scenarios ... here are the two most common yet "polar" challenges

Wide Foot - average volume

To get the width and volume necessary ... a skier is very often put into boots too big, too long ... sometimes too high in the instep, reducing mechanical advantage ... effectively making the boots stiffer than designed and placing the ball of the foot too far back on the ski (if bindings mounted correctly, according to industry standards). Imagine the overall effect of a boot that does not allow for freedom of ankle articulation forward, and a foot that is too far back on the ski ... Most ski boot liners are smaller by 1 size than the shells that they live inside. If the liner fits the foot, generally the shell is too big ... best solution ... get a smaller boot, the liner will be then tight in the toes. Solution; stitching must be removed from the liner in the toe area to open up room for the toes, giving space and freedom for comfort and for staying warm ... allowing the skier to be in a smaller shell size that will fit closer to the foot, allowing for higher performance potential.

Average width, average volume, longer length foot

This is common, especially for some of the younger girls that will one day be tall ... feet grow ahead of their bodies. If the boot feels like it fits in length, they are swimming in it ... literally, I give them full credit! I have no idea how they manage to get down the mountain in 1 piece. This is often another scenario where mechanical advantage is lost and foot position on the ski is likely

not optimum to balance correctly on the ski. In this scenario the effective volume of the boot must be reduced by inserting padding. Raising the foot to assist with mechanical advantage (aligning ankle and boot articulation) can also help to provide better performance ... effectively making the boot flex as originally designed.

These are just 2 of the most common challenges ... everything in between and additional complications do arise.

Positioning the ball of the foot on the optimum balance point is another challenge. Skis are not all made the same, sidecuts are different, shapes different, flexes different ... all of these factors having affect on the balance point of the ski. Skiers are pretty amazing in their ability to adapt ... after a few runs a good skier will find "the sweet spot" on a pair of skis ... the challenge comes as a coach when a skier is unable to adapt ... the skis ... skiing the skier

Okay, now that I've told everyone what they already know ... let's find some solutions

Have a good look at your child's boots. Take the liner out, put a foot in the bare shell. A true high performance fit for a high level ski racer will be less than 1cm of extra room inside the shell. I suggest 2cm for most young skiers would be maximum extra distance ... between 1 and 1.5 is optimum, a good fit, still allowing room to open up the toes of the liner. Toe room is essential, better to have open liners than pressure on the toes.

Have a look at the boot volume in relation to the volume of your child's feet. If you can do the buckles up near the last notches, likely the boots are too big in volume. Best case scenario is to have buckles done up only enough to keep the shell closed ... and a little bit more.

Another common issue with the young male skiers; their calf muscles are generally higher than their female counterparts. The circumference of the upper shell is often too large. In this scenario; if the boot buckle and strap are done up tight enough for a snug fit around the lower leg the skier is forced into the back of the shell with the leg straight, no ankle articulation forward. Many young male skiers will need wedges in the back between the liner and the shell to help them keep their ankle articulation forward and active throughout the turn.

Skis; With skiing marginal locally this is the best time to get the skis in for a good tune. Have a fresh new structure put into the base, get them sharpened and waxed two or three times ... you will notice the difference in speed and also in the ease of their turning ... a nicely waxed ski will enter and exit the turn with more fluidity ... much more FUN!

In closing; none of this is a panic situation. Take some time, have a look, consider the possibilities and look for potentially positive ways to help your child have a better skiing and ski racing experience.

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