The Skier's Guide to Bootfitting

ver. 5.0

Save Your Vacation or Your Ski Season

A free series of whitepapers written for ski clubs.

By Stephen A. McDonald, C. Ped.
Skid Couture - Fine Custom Bootfitting
Hand Tunes - Daily Wax
Basement of the Hostel
307.413.5745

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Jackson Hole this Winter?

Ski Shop Owner and 28 Year Jackson Resident
Stephen McDonald

presents:

HOW TO SKI JACKSON ON A POWDER DAY

A free welcome lecture for visiting ski clubs. Make the most of your ski club trip and maximize the mountain. Find out the inside scoop from a 100+ day Teton Village skier every year! The real deal!

This 30 minute intro to skiing Jackson Hole will blow your mind and have you psyched for the first chair. Navigate the mountain like a pro. Mere minutes will change how you see the mountain. Ski secret stashes while others are still standing in line!

Stephen McDonald, C. Ped.

Board Certified Pedorthist
The Best in Custom Boots
Custom Orthotics - Hand Ski Tunes - Daily Wax

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? ? ? Reservations must be made in advance ? ? ?

??? Location for lecture: Basement of Hostel or YOUR lobby/location ???

Ten Things You Should Know About Your Ski Boots

by Stephen McDonald, C. Ped. Teton Village, Wyoming
Owner of Skid Couture, a ski shop at the base of Jackson Hole Mountain Resort

From Apres to chumming it up with the shop guy, there are some boot terms and principles every skier needs to know. In a world where millimeters count, the proper jargon is important.

***BSL* means boot sole length.** Asking a skier their ski boot size says a lot about what type of skier they are. If you ask a poor skier what size they are, “10.5” is the answer you'll get. If you are a decent skier what size they are, “27.5” is the answer you hear. If you ask an excellent skier what size they are, you hear “317”, referring to the BSL of the boot. BSL is the millimeter size of the boot from toe to heel as measured from the exterior mold of the boot. This BSL measurement factors into your DIN setting. It's important to know if you demo skis frequently.

It's important to know your mondo point size and width of your foot. As mentioned, ski boots are sized a few ways, but Mondo is commonly used during the sizing process. It can be a number in kid's ski boots from 18 to 26 and from 22.5 to 30.0+ for adults. It's just good to remember. Lots of shops use Brannock sizer- that old fashioned contraption just like the shoe store when you were a kid. Is going to read a little long. I use one still- your actual size may be a little shorter that it reads.

Look for the boot center mark. This molded small vertical divider marks the center of the boot. Usually on both sides of the boot under the mid foot. New school, traditional and “behind the line” mounts in relation to this mark are all popular. A ski mounted “new school” will have the BSL of the boot

mounted slightly forward of the ski center line, and will ski more balanced when in the park- good for doing things like hot dog splits and 360s. Mounting forward also changes the turning characteristics. Traditional is good for most skiers- where the designers of the ski put the turning radius. The shop tech mounts the skis from the boot center mark. The boot center is also important for the guy in the rental shop. He'll be setting the rental bindings off this mark.

Ladders on the cuff are likely movable. Leg fit is super important. The ladders- the part of the boot catching the buckle, is likely adjustable to a more comfortable- or better, a *tighter,* position. This ensures the cuff is in the tightest configuration, keeping vacation ending boot bang and blisters to a minimum. Maxed them out? No sweat, just drill new holes and mount the ladder in a correct spot.

Boot buckles are likely threaded allowing for close fitting adjustments. I'm amazed by the number of good skiers who have never used the threaded shaft on the buckle. This is an excellent way to get a great fit every time you don the boot. Don't think about the ladders (see above) when tightening your boots, concentrate on the threads. That's how exact your bootfit needs to be.

#1 important part of the boot- Power strap. The power strap is not there to carry your boots. Yes, it works well as an impromptu shoulder sling, however it is there to manage pressure in the upper cuff. The power strap needs to be *tight*. A strong skier will have the power strap tight enough to marginally loosen the top buckle. With the tongue and multiple layers of cuff plastic, the power strap makes the boot stiffer by managing friction in the upper cuff- affecting forward lean and rebound. The standard stock velcro strap on most boots is fine for most skiers. Skiers with a history of shin bang will want elastic or ratchet style straps.

Putting a piece of duct tape over the toe will keep your boots more waterproof. It's not the cold that gets you cold, it's the moisture. Taking a

closer look at the seam overlap at the instep reveals no matter how much pressure you put on the front buckles, it will always leak. When you come in for the day, ice crystals between your shell and liner thaw and the next day, you'll have cold feet. Hey- you're sweating a lot from the inside too! After three days of skiing, the liners are drenched. Cold feet are sure to follow. Help out the toe gasket with a piece of tape- it'll make you look local. ProTip: Remove your liners every day.

Forget using the front buckles on your boots. They make your feet hurt. Most ski boots have a narrow fit. The average skier can barely tolerate the boot until the end of the day and not a second more. The front two buckles over the toes and instep only help to make your day shorter. These buckles aggravate the interdigital nerves in the forefoot- leading to intolerable cramps. Good news though... metatarsal cramps usually go away immediately upon loosening the front buckles or taking the boot off for a few minutes.

The upper cuff of your boot is not tight enough. 99% of the fit is in how well the upper cuff matches your lower leg anatomy. No gaps, spaces or voids. Shin bang will shut you down. Make sure the contour of the liner tongue matches the contour of the shin. There can be no space. Keep the forefoot relaxed while gradually tightening the cuff. *Your boot should be so tight that you're not using any muscles at all.* Hint: Always tighten the boot 92% tight for the first run of the day, they go to 100% tight after you're warmed up.

Rear spoilers and removable spacers. There are likely some wedges bolted or riveted into the upper rear cuff. These can be adjusted for height or removed to better accommodate leg shape. In women's fits, they can be removed easily- sometimes velcro is the only thing holding them in. On a woman, calf muscles insert lower on the leg than on a man. Sometimes they pinch calf muscles and need to be ground to a smoother profile. Deep muscle bruises from ill fitting spoilers are vacation killers.

Changing Skiing: Bringing Pedorthics to the Boot Bench

By Stephen McDonald, C. Ped.
Skid Couture, Teton Village Wyoming

INTRO

For decades, the bane of many skiers has been the poorly fitting ski boot. It is a unique piece of footwear capable of producing both great joy and pain. Using Sports Pedorthics, it is possible to achieve a high level of performance and still keep the skier in comfort and warmth. This is no short task. Retaining the features required for control on frozen technical terrain requires tightness and a very responsive fit.

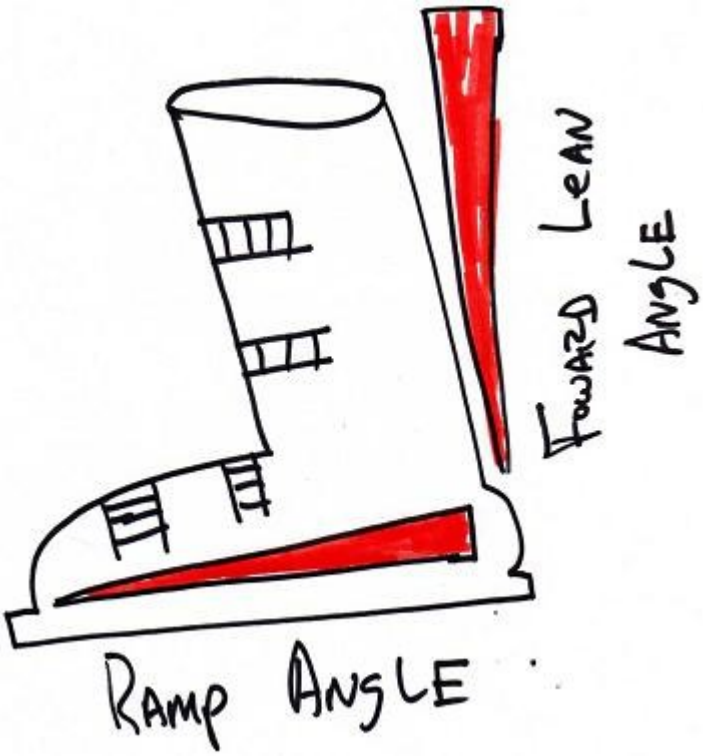
The boot bench in a slope side ski shop is hallowed ground and it has been only recently that Pedorthics has begun to help skiers. Pedorthics, a health profession in the orthotics and prosthetic field, mainly deals with modifying footwear for the inform foot. In skiing and the Sorts Med field, this means modifying footwear for extreme performance. Modifying the fit of a boot through shell work and custom foot orthotics is common and manufacturers expect reputable shops to perform this efficiently with no damage to the integrity of the boot shell. Enter Sports Pedorthics.

These modifications can be either accommodative or functional. Accomodative, changing the boot to fit the foot, or functional, changing the foot to fit the boot. Average recreational skier are pushing the limits on terrain not even imaginable 15 years ago. Professional skiers working on mountain in the most demanding conditions- every day- require the best fit possible.

All modern alpine ski boots share some common traits. The shell, or the hard plastic outer part of the boot is stiff for control. There are a series of sturdy buckles to secure the foot. A removable and sometimes heat moldable liner- the soft inner boot that is immediately next to your foot, varies greatly among manufacturers. And lastly, an oft overlooked part, the custom orthotic or insert which cradles your foot. Custom footbeds became popular in the early eighties and caught on with the Type 2 skier in around 2005.

Like other parts of the footwear industry, the lasts or form around which a boot is manufactured is a tightly kept trade secret. Also like other parts of the shoe industry it is common for a manufacturer to stick to a particular last shape or foot characteristic. In the industry, this may be geared towards skiers with a narrow foot or a high arch or instep. Some ski boot manufacturers have diligently stuck to their reputations dictated by their respective lasts shapes' and others continually are introducing new boot shapes. To name a few niche characteristics- wide lasted, high arch, tight heel pocket or extremely narrow forefoot- will often keep a skier in the same brand of boot for 30+ years. Because of these characteristics, demanding skiers look to the expertise of a Pedorthist to modify the boot to better fit the foot. Or the skier will look to change the shape and function of the foot to modify or enhance a skiing style or manner.

Determining foot volume is important because boots that are too tight can cause neuromas and metatarsal cramps. Debilitating pain arises from even the most innocent fitting missteps. Yet boots that are too loose cause problems up the kinetic chain when muscles and joints have to over compensate for sloppiness in fit. The fit of a ski boot should be tight enough to relax foot up against the shell and liner, but not tight cramp- no small task!



The increased angles in forward lean and ramp angle often dictate features required by expert skiers.

The modern ski boot started to take shape in the 1960's when plastics invaded the industry and

standardization of binding release values became widespread across the industry. All modern ski boots share common characteristics have DIN (Deutsches Institut für Normung), or in English: German Institute for Standardization. In the 90s modern foam started to creep into the liners and fitting became as much an art as it is science.

Over the years, the common mythology around ski boot fittings has been “the tighter, the better” or “if they don't hurt, they don't fit”. This resulted in many skiers never trying the sport a second time or giving up after a few short painful seasons. Hard numbers are difficult to come by, but inside the ski industry it is estimated that over 75% of first-skiers will never try the sport after the first time. The reason: painful ski boots.

THE SHELL FIT

Once a skier has made the choice to purchase boots, evaluation of the foot is important. I have the skier sit at my bench, with socks off, which is elevated so that I am looking directly at their feet. A routine pedorthic evaluation is beneficial as skin, bruising, toe nail condition, previous injury, gait and ROM can tell me a lot about a particular skier. The patient interview starts. Similar to a traditional clinical pedorthic evaluation in a hospital or clinic, getting accurate information from the skier is essential because it will determine the style boot purchased.

The shell fit is essential to all ski and snowboard fits. With the socks off and the liner removed from the shell, the skier will place their foot in the shell and the fitter will determine foot volume relative to the shell shape and volume. This is important as the shell fit lets the skier see how factors such as foam durometer (density) and BSL (boot sole length) affects them.

Wooden fit dowels are a standard for most ski shops. Fitters will use three wooden dowel widths- 5/8ths, 3/8ths and 1/8th of an inch. They are called Comfort Fit, Expert Fit and Race fit respectively.

These dowels are inserted into the shell while the customer's foot is scooted forward all the way until the tip of the big toe is just touching the front of the boot . The dowels are inserted into the shell to measure how much space is between the heel and the shell of the boot. This is an excellent indicator of how tight (read: responsive) the fit will be. Generally, a boot with a loose shell fit will be more comfortable than a boot with a tight shell fit, but it may not provide the support needed to drive a ski at speed.

It is at this point a shell shape and type is determined. Beginner boots are generally soft and flexible, with very accommodative liners and inserts. Expert boots are generally narrower along the length of the boot. This provides a more responsive feel when edging side to side at high speeds. Expert level boots have liners that are much firmer- providing a more responsive experience for the skier.

LINERS

Like shell material, soft or rigid also applies to the liner as well. Tougher, less forgiving foams are more difficult to break in and require considerable diligence to achieve a comfortable fit. Softer materials are more comfortable to wear and break in, but lack the rigidity and responsiveness to provide more advanced skiers the control needed for more aggressive terrain.

“Pack-out” is a term frequently used in the industry to describe the point at which the liner materials have stopped conforming to the skiers foot and have not yet begun to break down. Pack-out is difficult to achieve in expert level boots because liner materials have higher durometers. Liners within a manufacturer's line will pack out at different rates. Watching a few movies in your ski boots will help strengthen foot muscles before your trip. Packout is accelerated by the movements of skiing. I commonly see expert skiers with a properly fit boot in severe pain. They only ski five days a year and in three or four years, they've not worn the boot enough to even modestly pack out the liner. It is essential to wear your boots *before* your ski trip.

Ski boot liners take a beating and have a finite lifespan. Sweat, extreme cold and the act of entering and exiting the boot all have a detrimental effects on liner lifespan. Many use a boot heater or drier that is too warm and quickly breaks down liner material.

Forces in everyday skiing are the best method for packing out a boot, but sometimes that's not enough. The liner can be heated so foams will conform to the foot faster. All but a few liners are heat moldable to some degree, but it is generally understood that the natural movements of skiing provide the best and most accurate pack-out. Heating the liner to achieve a more comfortable or user friendly fit is frowned upon by advanced skiers because it is seen as detrimental to the life of the liner, effectively decreasing the usable life of the liner. Having a convection oven or stack heaters set to exact manufacture specifications is important.

Aftermarket liners are common and require different methods to achieve a solid fit. Choosing an after market liner that fits the shape and volume of a ski boot shell can be tricky. Aftermarket liners are popular because they extend the life of the shell (after the stock liner is worn out) and can substantially stiffen the flex of the shell- a desirable feature among expert skiers. Aftermarket liners are warmer than many of their stock counterparts. The most popular and most accommodative fit is the Intuition brand liner. The consumer can purchase these liners off the internet, but specialized molding techniques require special tools and procedures.

THE ACCOMODATIVE VS. FUNCTIONAL FIT

Beginning skiers are best served by an accommodative fit. This means the structure of the foot is changed little and the construction of boot is modified to better the fit an individual's anatomy. Stretching the boot shell, grinding extra room into a thick plastic toe box and removing material from a liner are examples of accommodative remedies.

Functional fits involve some aspects of the accommodative fit, but work to structure the skier's foot to subtalar neutral. The position of the forefoot relative to the rear foot is also important as

ski turns are initiated from this area. Many skiers cannot tolerate full correction to subtalar neutral and break in times often longer than a skier's vacation. A balanced foot is necessary for the strong and graceful turns demanded by big-mountain skiers.

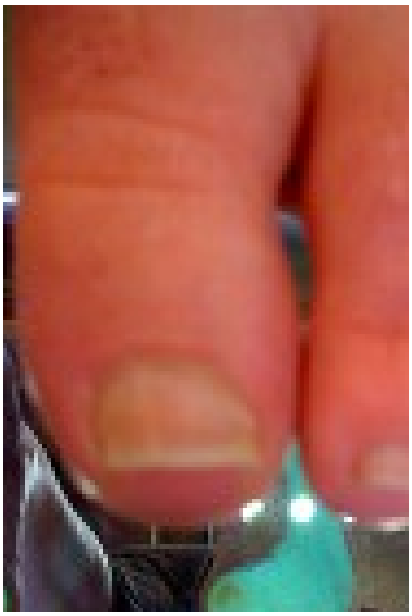
Making the boot easier to enter and exit is one of the most frequent modifications. Ski boots are very laterally stiff and are engineered to flex forward so the skier can power through a turn. Skiers with a history of injury to the Achilles tendon or other constraints on dorsiflextion will benefit from stiffer boots. Skiers with decreased ROM or arthrodesis will find it easier to use a boot with a soft accommodative opening.

Standard ball and ring stretchers as well as hydraulic stretchers and spreaders are commonly used to make modifications to the shell. Shells manufactured with thermoplastic elastomers are commonly referred to as PEBAX. These shells are lighter and more flexible and are used in ski touring. Polyurethane boots are heavier and compose the majority of the market. They are easier to work with and require less finesse to make subtle changes. Most high end boots come with a grindable zeppa, or the boot board. With subtle modifications, very exacting changes to eversion and inversion can be made. Depending on ski boot model, the zeppa can also be ground (or ramped) to affect plantarflextion and dorsiflextion.

INSERTS and CUSTOM ORTHOTICS

Most ski boots come with a simple insert made of felt, or at best, a little accommodative padding to help provide a good experience during the fitting process. The stock insert provides little support and can cause problems because the foot, once lubricated by sweat, can shear in the liner requiring extra muscle work to compensate for the movement. As the liner reaches pack-out, volume in the boot increases and orthotic helps stabilize the foot. Expert skiers won't even try on a boot in the fitting process unless there is ski specific a custom foot orthotic inside the boot.

Foot orthotics allow the foot to be firmly seated in the boot so that internal movements are minimized. A properly made orthotic allows the foot to be more relaxed while still providing support. Perhaps the most important benefit from a custom made orthotic insert is the repetitive accurate placement of the bony landmarks of the foot in the same place in the liner each time the foot is inserted into the boot during the pack-out process. Liner materials have a great memory and it is important the bony landmarks of the foot sit in the same place in the boot each time. Even minor variations in foot placement can have detrimental effects on pack-out. Stability and support at this point is second to long term accurate foot placement in the boot.



A podoscope is an excellent tool for looking at plantar images. Here the darker area under the first met shows increased pressure from a callus.

The spectrum of inserts on the market is broad. Off the shelf inserts start around $35 and can range to over $75. Custom built inserts and orthotics have an entry level price around $200 and can cost in excess of $550. Common materials include carbon fiber, plastics, cork and high durometer foams. All skiers will benefit from an after market insert, either off the shelf or custom.

The Pedorthics remains the same as a clinical setting. The medium is different. My job is to get accurate information about the skier and their medical history and choose a service or product that will serve them well and fit their needs. When you've spent thousands of dollars to ski with friends and family, there is no greater vacation threat than painful feet. If you are skiing for the weekend or for a career, painful feet associated with poorly fitting ski boots can be a thing of the past. It is my calling as a Sports Pedorthist to help people have a great time. I take that charge very seriously.

Stephen A. McDonald, C. Ped. owns Skis Couture, a ski shop in the basement of the historic Hostel in Teton Village, Wyoming. He lectures nationally on Sports Pedorthics and has been featured in *Powder* and *Freeskier* as well in medical journals.

The Skier's Guide To Bootfitting

Save A Vacation or a Ski Season

What You Need to Know About
Ski and Snowboard Bootfitting

by

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Introduction

Over a dozen years ago, I wrote the original *Concierge's Guide* and it was a hit. Littered with pithy fun, it gave front desk and concierges something to read at work in the slow times. The early versions had valuable information a JH skier encounters and got my name out there. The Concierge's Guide was aimed at helping the skier and snowboarder understand what is going on with their feet and helping front desk personnel look like a pro when recommending a ski to guests and clients.

Skiing in Jackson since 1991 has lead me to believe the ski boot is the most important piece of gear on the hill. The ski boot is an essential piece of work wear for many of my friends. Guys and gals working on their feet daily in ski boots have little time for ill fitting footwear. Vacation is not the time to be hobbled by painful ski boots. Using technology and materials directly from the Prosthetic and Orthotic field, it's possible to put boot drama to rest.

If your ski club visits Jackson Hole this winter, please visit my shop, Skid Couture, slope side in the basement of the historic Hostel in Teton Village.

Nobody's foot should ever hurt. Ever.

Stephen McDonald, C. Ped.
Skid Couture
Fine Custom Bootfitting - Daily Wax - Hand Tunes
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Why does my boot have to be so tight?

That's something I hear quite frequently. Perhaps the number one question among beginning skiers. Expert skiers never have to ask it.

Control costs compression. Without compression there is no control.

To maintain control, your foot and it's “power print” has to be able to project force to a targeted plane of movement. It has to be sufficiently tight enough to prevent shear, yet still has to allow sufficient circulation for muscle control and keeping the foot warm.

All skiers need to have a realistic understanding of your athletic thresholds. Be able to adequately express those feelings honestly to your bootfitter. People claiming to be expert skiers are getting hobbled by boots that are way too stiff and burly- be honest with your fitter. Since control comes from snugness, foot width and flexibility are important considerations.

What is a “last”? A last is the piece of metal or wood that a cobbler, or in our case, ski boot manufacturer, uses as a mold for the foot. Last shape and actual measurements are a tightly held industry secret and their shapes often dictate a manufacturer's reputation.

Foot Flexibility and Comfort

The relationship between foot flexibility overall boot fit is important. Feet come in two types: flexible and comfortable and rigid and uncomfortable. There are a few exceptions, but most people fall into these groups. If your foot is too flexible, it won't have the strength or support needed for good function. The ability of your foot to tolerate sustained cramping in a tight boot has a lot to do with foot flexibility. Flexible feet can take a world of abuse in a boot with little complaints. Flexible feet generally have low or

nonexistent arches

Rigid feet of the other hand, can be uncomfortable to begin with. Tighter muscles, tendons and ligaments don't compress or squirm around as well in a boot as their flexible counterparts. Metatarsal cramps and burning neuromas occur in these situations. These occur from the interdigital nerves tucked between the metatarsal bones getting crushed.

Foot types... Who are you?

Rigid and Uncomfortable	***Flexible and Comfortable***
High arch or cavus foot	Low or no arch, planus
Frequently uncomfortable	Little foot pain
High PSI and point pressure	Low PSI and even pressure
Calluses show pressure spots	Few calluses

The Soft Foot: Poor function due to decreased joint ROM and higher tendon ligament laxity. Too much flexibility means foot function is compromised by laxity.

Special Notes: Cavus and flexible- doesn't happen Rigid and planus (accommodate)

Liner Lingo

Packed out...? Broken in...? Whats the difference?

Terminology is important these days and how you speak about your gear say a lot about who you are as a skier or snowboarder. New out of the box, most ski boot liners fit tight and snug, but after just a few days, the air bubbles in the foam begin to pop and form custom spaces around your

foot. Don't heat fit a stock liner. It will be more comfortable at first but will soon likely get too roomy for good control while skiing.

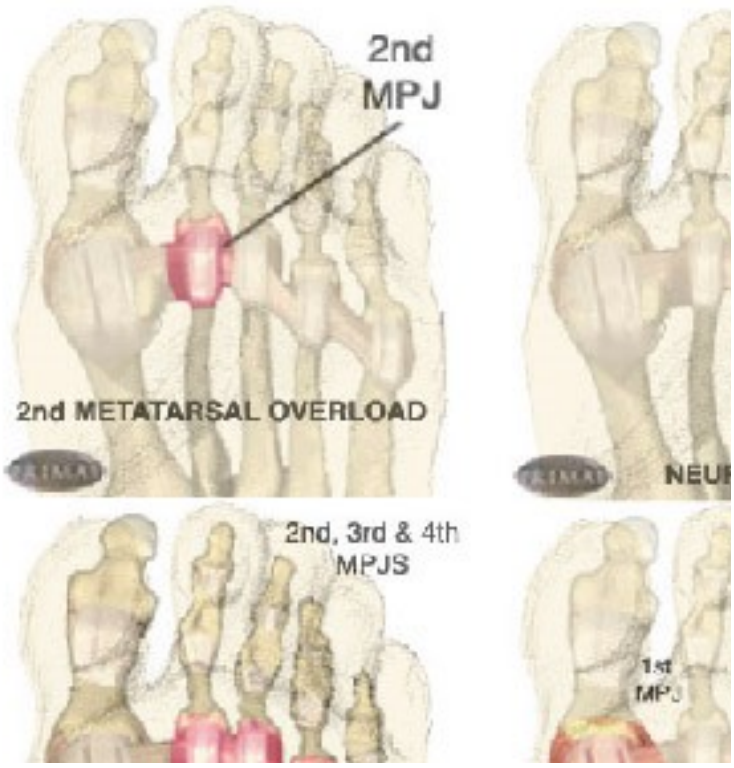
Hopefully this process stabilizes in a few days, leaving one to find the happy equilibrium between pressure and comfort- without being sloppy. “Packed out” is used two ways by the bros. Usually it is when the liner's air bubbles have completely formed to your foot and the boot is pretty comfortable. It can also mean the liner is completely played out dead. A high quality ski boot liner can easily last 100+ days and still be sold enough for charging. For years the industry byline was “25-40 days”, Factory stock liners have gotten very nice and that short time period is not true in higher end boots with quality liners.

Common Foot Issues

in Ski Boots

Heel Pain

Problem: (under the) Heel Pain, Strained Plantar Facia, or history of Pantar Fasciitis.
Pathology: Sedentary, pronation, overweight or sudden strain from landing or jump. (!!!) Usually in park and found in teens and 12-16 year old girls.
Solution: Heel Lift, Arch Support, Custom Footbed, Rest, Vitamin I, properly fit boots
Goes Away: 6-8 weeks



Ball of Foot Pain

Problem: Ball of my foot is killing me, I feel a blow touch under my foot, nail through middle of foot.
Pathology: Large or wide foot, narrow boot, thick sock, ? age M/F, older women
Solution: Thinner sock, check for wrinkles/reinsert felt foot liner, remove insert from boot, rest, custom orthotic, metatarsal pad, Vitamin I (!!!), properly fit boots
Goes Away: Usually immediately

Medial Ankle Pain

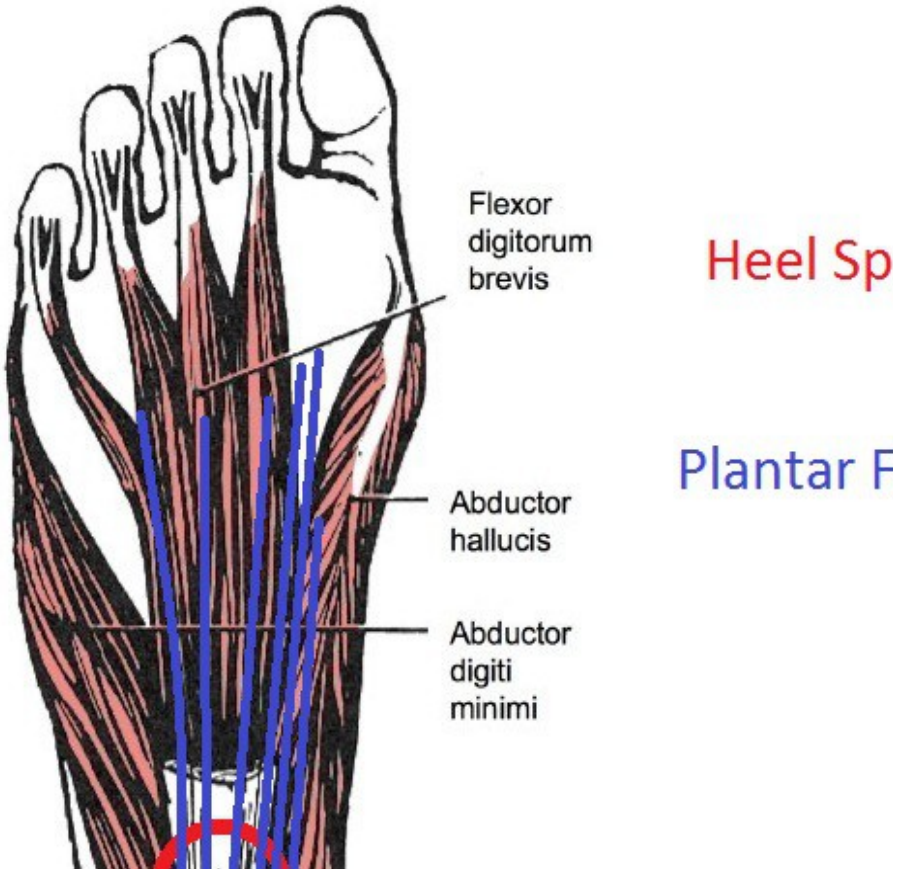
Problem: Soreness/redness, bruising/blistering, broken skin,
Pathology: not used to ski boots, foot not secured in boot, boot not tight enough, steep terrain(!!!), compression neuropathy(!!!)
Solution: C-pad & heel lift, custom footbed to secure foot, varus wedge,
Goes way: 2-4 weeks

Anterior Shin Pain

Problem: pain at step off or pain walking without ski boot (took it off at lunch), hurts when skiing, can't ski, bruising, bleeding
Pathology: Poor form or tail riding (!!!), wrinkles in sock, pants in boots, too much stuff in boot, cankles, older women, sedentary lifestyle/larger frame
Solution: Ski School, thinner sock, heel lift, correct thermal underwear, Eliminator or custom boot work- easiest “work” for rental boots, properly fit boots
Goes Away: 2-4 weeks

Posterior Calf Pain

Problem: Rear leg pain, burning or throbbing leg muscles, bruising, can't ski, more difficult-tends to be deep tissue injury
Pathology: Too much in boot, poor form, tail riding, cankles, large calves, be found in skiers with short wide feet & stocky frames, boot cuff too tight
Solution: thinner sock, heel lift (!!!), no pants in boot, properly fit boots



Bottom of the Foot

Plantar Fasciitis pain runs along the inside to middle of your foot, from the heel to just before your big toe.

Heel Spur Pain should fit neatly under your thumb just in front of the bottom of your calcaneus.

Each requires different boot modifications. Many bootfitters get these confused.

Wrongly diagnosing the problem can cause debilitating pain.

The Cankle

Problem: Hey, this is not just a woman's issue! It's a problem I see all the time, from the very young to the very old. To be polite, let's just say people are more *chubby* than they were just a few decade ago.

How it happens: This can be a compression injury. I firmly believe it takes practice (and patience) to build up the muscles required to distribute ski boot pressure along the kinetic chain. Some people's muscles are *softer* and don't respond well to pressure in a ski boot. Being in a sedentary position on office days doesn't help either.

All of this can be compounded by a low tolerance for athletic pain. Adrenaline can cause one to forget many negative issues.

Solution: Wider boot, cuff. A **heel lift** is required to hopefully elevate the injured area from the pinch point. Moving the upper buckles to a wider position may allow additional banging and bruising, which can exacerbate the issue.

The Angry Hard Charger

Problem: Sore shins, sore ankles, poor performance due to painful boot. Too stiff a boot is making for a bad experience. Generally this guy will wait until his leg looks like hamburger before going to see the a bootfitter.

How it happens: Piste-Off Skier who lives in an office like veal. Big bell-to-bell days early in the vacation have taken his body by storm.

Solution: Get a custom cut shin pad made out of medical grade foam for shin bang. Takes ten minutes @ skid Couture in the basement of the Hostel. The guest really needs a custom footbed to secure the foot in the boot.

Black Toenail

I'll spare you the gory picture.

#1 Factor: The boot is likely too big. Comes from hard landings where foot is not properly secured in the boot or tail riding in the pow.

I'm convinced that Skid Couture in the basement of the Hostel is part barber shop, part M*A*S*H unit. Black toenail is right at the top of the list,

If the throbbing gets too bad... then... the hot clip, but you didn't hear that from me. This procedure is a ski trip killer- or saver- proceed with caution!!! Drink some beer, do what it has to take- it will bring some relief. Actually the person doing the piercing is the one who needs to be doing the drinking. While relief ensures, this desperate act is best handled by qualified medical personnel.

You will loose the toenail. I hit a piece of ice in a cat track and got a black toenail. Repeated black toenail will cause scarring in the nail bed and will cause the nail to grow uncomfortably or in a deformed shape. The whole process take months to completely heal. Depending on the severity of the injury, it can take as long as a year for the nail bed to grow out.

Soak Epsom Salts. Aspirin- a blood thinner- helps reduce the throbbing.

Sometimes a toe punch will save the day, cutting the liner to allow for increased toe space helps a lot.

General Rules for a Great Day

Warmth comes from the boot, not the sock. The thicker the sock, the colder the foot. Too thick a sock and the blood flow get constricted.

I think everyone knows this by now, but NO cotton socks.

Beginner? Calf and shin fit is better than foot fit.

Tell the skier to imagine relaxing the foot. It s*hould* be tight enough to relax the foot- but not cramp.

Don't clench/grab the bottom of the boot with your toes. Let the custom footbed so the work.

Kids: Happy is better than fit. Tight on the cuff, never on the toes.

There is a direct correlation between dehydration and cold extremities (particularly feet). Drink lots of water. Save alcohol for apres ski.

Take frequent brakes. Eat snacks all day long.

Thanks for reading. Stephen McDonald, C. Ped Skid Couture

Basement of the Hostel 307.413.5745 Call for Appointments!

The $50.00 Boot Tune – Lifechanging!

The Vacation Saving $50.00 Boo

____ Check Din Toes and Heels

____ Remove liner and assess shell fit

____ Measure and inform customer of Mondo & BSL

____ Check liner condition, packed out?

____ Check footbeds, shot?

____ Mark apex of ankle bones on both liners with Sh

____ Apply C-Pads & tape in place

____ Assess need for sheet of Bontex under liner; thic

____ Assess liner/boot for special needs

Move cuff wedges if necessary

WHAT TO EXPECT FROM YOUR NEW ORTHOTIC

Your new orthotics were custom designed with the unique features of your feet in mind

The support given by your new orthotics will be immediately noticeable. This orthotic can support the vascular structures in the foot improving blood flow, making your foot warmer. The custom fit from the orthotic generally provides much greater performance in the ski boot, cycling shoe or running shoe.

The orthotic is also important during the break in period for your boots. When purchasing ski boots, the fitter is challenged with the task of fitting to boots during the initial period, but also the fitting the boot after the foam in the liner has compressed around your foot. The orthotic helps this process. Allowing your foot to sit in precisely the same spot in the boot each time you ski, your orthotic makes your new boot more comfortable.

Changes in your foot mechanics

There are two types of muscles in your foot, intrinsic and extrinsic. The extrinsic muscles are located outside the foot and are responsible for all of the movement in your foot. The intrinsic muscles are located entirely within your foot and help stabilize the foot. If your orthotic was prescribed by a Physician, he or she is trying to accomplish a task the orthotic will assist in. If you have purchased this orthotic to increase comfort or performance in a particular sport, it may take a little getting used to the feeling it first provides.

The Pedorthist

A Board Certified Pedorthist is an allied health professional who specializes in the care of the foot certified by the The American Board for Certification in Orthotics, Prosthetics & Pedorthics. Most pedorthists work in labs filling prescriptions and manufacturing orthotics for orthopedists or podiatrists. Some choose to work in the field of sport medicine helping athletes reach their full potential. A Pedorthist is not qualified to diagnose a medical condition. If you feel you have a medical condition, quickly contact a doctor you trust.

Stephen A. McDonald, C. Ped

Skid Couture - Fine Custom Bootfitting

Hand Tunes - Daily Wax

Basement of the Hostel - Teton Village, Wyoming

307.413.5745