Winter ski sports are evolving quickly, maybe even faster than global warming can spoil all the fun. The traditional 'big three,' alpine, cross country and ski jumping, have diversified into a 'category' that now includes snowboarding, freestyle skiing, heli-skiing (involving being dumped on a remote peak by helicopter), tri-slider (a three-runner snow sled), skijoring (cross country pulled by dogs), kite-skiing (downhill pulled by a parachute) and ski-biking (steering a cycle downhill on blades instead of wheels). The latest addition to the ski-bum's passion to negotiate all things high, cold and white is tele-skiing – also known as backcountry skiing.

Free-heeling in the backcountry



Alpine skiers may still dominate the commercial downhill landscape but 'hiking up and skiing down' in the backcountry is catching on fast. The term 'telemark skiing' usually means ascending a snow slope by kick-hiking up using skis, and then descending by making linked telemark turns using free-heeled boots, skis and bindings. The term 'backcountry' refers to the locale in which the ski touring takes place outside of any lift-served ski area, which is typically where alpine skiers with locked-down heels and parallel turns can be found skiing on snow-blown, machine-groomed slopes. And just because the skis may look alike, it doesn't mean they ski alike. Alpine skis are made to flex, with the idea that when you turn you're putting 90% or more of your weight on your downhill ski. In contrast to this, a telemark ski is designed to flex in a way that complements a tele run, where body weight is distributed much more evenly, i.e. 50/50, on the skis.

Nordic or cross country skiing evolved in Scandinavia as a means of practical winter travel over hilly, but non-mountainous, terrain. Similar to tele-skiing, in Nordic skiing the toe of the boot is attached to the ski by means of a binding, but the heel is not attached, hence the other name for this activity: free-heel skiing. The telemark turn evolved as a means of controlling speed on descents of snow-covered slopes on free-heel skis. There are many different styles of backcountry skiing, and there is much disagreement about which one is the 'best'. Tele-skiing offers a perfect combination of the thrill of the downhill descent and the cardio-vascular work out of cross country skiing.



(left) Crispi's CXP is its most popular boot while (right) Scarpa has improved on the design of one of its most popular tele boots with its T2X Men's Telemark ski boot.

Crispi / Scarpa

Specialised gear for telemarkers

True tidemark skis, which bear more resemblance to alpine skis than classic striding (cross country) skis, are designed almost exclusively for downhill travel. After all, it's more fun carving telemark turns than touring across country. Although leather boots are still available, skiers that are into telemark have graduated almost exclusively from leather boots to ski boots made of plastic with similar characteristics to downhill boots. Since the primary feature of telemark skiing is the free-heel system, plastic telemark boots tend to be softer and more forgiving, allowing the wearer to plantar-flex the foot in order to raise the heel from the ski's surface. In telemark, in order to traverse the uphill portion of the hill, the boot allows a canting of 17-22° for full flex while walking. Tele is considered more tiring and physically taxing than downhill skiing, therefore telemark boots are also lighter than their downhill mono-bloc injected counterparts. Tele provides a better connection with the mountain since there is more feedback through the boots as they are flexed on the ball of the foot rather than frozen in a cast.

Injuries, attributed to a certain sports activity, always play a major part in the overall long-term popularity of the sport. It has been shown that the relative risk of knee injuries is significantly lower among skiers with plastic moulded boots than with the older style leather boots. The use of plastic style boots for teleski has increased dramatically in the past few years affording greater stability on downhill turns and preventing inadvertent falls which can invole the wrong edge of the ski catching the snow. Releasable front bindings for tele-skiing also seem to lower injury rates as opposed to the double release bindings used for downhill—making the sport overall slower and safer than alpine skiing. Evidence that free-heel gear is better for your body can easily be found just by checking ski patrol logs of the wrecks throughout the ski season. Telemark ski injuries are counted in the dozens, as against the thousands of alpine wrecks. Now, if they could only find a way to overcome the increase in avalanche fatalities amongst backcountry skiers, the sport may well rival downhill, at least in the USA and Canada.

Boots to hike up and ski down

We have Black Diamond and Scarpa to thank for today's modern tele boot. They started the plastic revolution in 1992 with the Terminator, and the industry has not looked back since. Garmont and Crispi soon joined the fray and added much needed competition that has driven telemark boot technology to its current state-of-the-art position offering powerful, durable, low-maintenance, lightweight mono-bloc injected plastic boots with (almost exclusively) thermo-mouldable custom liners. Like skis, there is a telemark boot for nearly every circumstance, from low cuff, soft touring oriented tele boots to four-buckle freeride style alpine-inspired boots. The choices break down into three primary categories: touring, all mountain and performance (freestyle/area). There is no doubt that in the past five years teleski boot manufacturers have made considerable strides towards the 'Holy Grail' of boot design—'out of the box' performance combined with universal comfort.

Moving to the specific up-to-date gear used in the sport, Scarpa has improved upon the design of one of the most popular tele boots on the market with its T2X men's telemark ski boot. The enhanced design has the same flex as its predecessor, the T2, but Scarpa has upgraded it with an asymmetric dual-density cuff for more power and control. Scarpa has also increased the height of the thermo-mouldable liner and beefed up the power strap to bring performance to a new level. The buckles on the T2X have been re-positioned to reduce pressure on the instep and the company has also added a replaceable scuff

guard in front of the lower buckle to increase durability. The T2X is regarded by expert skiers as much stiffer, stronger and with a more responsive feel than competitive boots. Overall it is recommended for tele skiers looking for a crossover piste/off-piste tele boot.

The Garmont Syner-G-G-Fit telemark boot is a triple-G multi-injection created with a multi-density shell for a smooth natural forward flex while retaining adequate torsional rigidity. Three-position forward canting allows flexing at 17° and 22° or complete release for full flex while walking. The mid-height cuff offers the leverage needed for downhill skiing performance with the mobility desired to tour comfortably. The lightweight, thermo-formable G-Fit liner uses three different closed-cell foam densities for warmth and form-fit control. The inner boot and tongue are built to enhance true forward flexing performance and offer comfortable pressure distribution for the shin. Garmont has designed a three-buckle closure with a power strap for a secure and adjustable fit. Vibram TeleRapid soles provide aggressive, off-ski traction in soft snow to complete the package. For the traditionalists Garmont still offers a leather touring boot with heavy-duty PU-coated full grain leather guaranteed to withstand all the rigours of the backcountry. The tried and true 75mm sole remains as versatile and effective as when your parents used it.

The Crispi CXP men's telemark boot is Crispi's most popular boot. This boot is considered the ideal 'go-anywhere' telelmark boot for resort and off-piste skiers. The CXP's three-buckle design offers the beginner a perfect blend of comfort, performance, power and flex. The CPX version for women is built on a women-specific last with a thermo-mouldable liner for warmth and comfort. The Crispi Men's CXR telemark boot walks the line between a stiff power mountain resort charger and a soft flex for comfortable touring. A thermo-formable liner provides a precise fit in conjunction with Crispi's unique arch wrap-around support.

Extras on ski gloves

Together with your pants, fleece, base layer, socks and your jacket, ski gloves are an important part of your telemark outfit. Your hands should be dry, warm and protected at all times. Hence it is crucial to choose the ski gloves that are best suited for the sport, i.e. durable, waterproof, and with a fleece or synthetic-based insulated glove liner. There are certainly plenty of choices and brands on the market including Marmot, Grandoe, Burton, Level, Gordini, Rossignol, Black Diamond, DaKline, Arc'Teryx, Cloudveil, Salomon, North Face, Lowe, Scarpa, Patagonia, Seirus and Outdoor Research. All of these brands offer both gloves and mittens for skiers and a few have specific models they recommend for tele-skiers.

Specifications on the The North Face women's Montana glove sound more like a running shoe than a telemark ski glove. Waterproof for the untracked powder and reinforced for the cast-iron corduroy, the glove has a waterproof and breathable HyVent insert wrapped in plenty of abrasion-resistant synthetic gripper reinforcement material on the outside. It's loaded with high-end features such as goggle wipes, nose wipes, a ladder lock wrist cinch, a soft fleece pile liner with brushed poly tricot and a stash pocket for extra wipes, without sending your skiing budget into double-diamond difficulties. The overall glove construction has an articulated profile for enhanced hand mobility and the Heatshield insulation doesn't overly muffle your sense of dexterity.

The Black Diamond Dry Tool Glove provides dexterity and long-lasting performance. This glove with Schoeller Extreme is wind resistant, quick drying, and highly breathable. The Pittards Cabretta leather palm provides excellent grip even when wet and will for last season after season of hard use. Most at home on a ski tour on hard ice and mixed climbing, the Dry Tool Glove is a precision backcountry tool.



Black Diamond's Dry Tool Glove offers dexterity and performance.

Black Diamond

Inspired by Jackson Hole ski patrollers, the bomber Troller glove by Cloudveil will keep your digits comfortable until the day's tele turns are done. Outfitted with a Schoeller stretch knuckle panel and Primaloft insulation, this glove keeps the extremities toasty. With a durable fitted wrap, microfleece insulation, and a storm sealing cuff the Troller glove will keep your hands under control—even if your skiing is not. DaKline's Impala glove makes a lonely freezing cold back trail feel like a sunny summer stroll. Thermaloft insulation, teamed with Gore-Tex three-layer inserts, wraps your fingers in 'mitten-like' warmth. The full length cuff adds protection with a cinch wrist strap.

Salomon is always a force to be reckoned with in winter skiing tradition and it offers several models including the CP Twin FR glove for men. This 'twinshell' glove features a sleek removable liner (should you get too hot on the ascent portion of the hill). Salomon's waterproof Softex shell material allows for maximum dexterity and the pigskin palm adds to the overall comfort and durability of the glove.

Yes, it's another full day, not only on the slopes but on the designing boards, for many of the world's leading winter sports specialists as they try to keep up with all the new and different ways to invent equipment to travel faster on snow and ice.