



Chapter 2. Equipment and Dressing

As with any piece of gear, getting the right equipment will help you perform better and enjoy the experience more. The right clothing and well-suited snowshoes gives you the best opportunity for enjoying the sport and thus desiring to return to it often. A small investment in time and money can provide you with a new hobby that will enrich your winter days.

How to Choose the Shoe

Revolutions in snowshoe design over the past few years have made them lighter, stronger, and more comfortable. Today, snowshoes even come with engineered bindings that focus on foot pressure points, control, and ankle and foot flex, and crampon systems designed for maximum spike penetration and traction. From a gear perspective, it's a great time to enter the sport.

With the answers to a few questions, you can determine the best snowshoe for your body and style of snowshoeing.

What type of snowshoeing do you plan to do?

	Aerobic/Fitness	Recreational	Mountaineering
Primary Use:	Running or racing	Moderate distance on broken trails, or gentle or moderately steep terrain with some off-trail use	Longer distance with moderate to steep climbing off trail; deep, fresh snow; rough terrain; search and rescue
Frame Size:	Lightweight/Small frames	Light or mid-weight frames	Larger surface area
Special Considerations:	Asymmetrical with interlocking or offset stance; flexible, secure binding with a spring hinge that lifts the whole snowshoe when you step over obstacles or back up	Lightweight traction devices; toes that turn up higher	Focus on crampon and traction system in the binding and heel; riser for heel to assist with climbing

What size of snowshoe is best?

Snowshoes come in a variety of sizes for men, women, and children. Your weight determines the amount of floatation you need in a snowshoe, and floatation is affected by the size of the shoe. Note: Your weight for selecting snowshoes is how much you weigh when you are snowshoeing. Will you be carrying a pack? A baby on your back? Avalanche gear? Or will you be running in tights and a sleek turtleneck? The more weight that will be on your snowshoes, the larger the surface area needs to be. Mountaineering snowshoes are larger for trail breaking, handling fields of powder, and carrying people who are more heavily clothed and/or are laden with heavier packs. To determine the best snowshoe size for you, allow 1 square inch of surface area for each pound of body weight.

Does the shape of the snowshoe matter?

The bear-paw-style snowshoe is any shoe with a round tail resulting in an overall oval shape. A teardrop-style has a tail that narrows and juts out in the back; these snowshoes must be larger in order to get the same surface area. The bear paw provides the best balance and stability, but the teardrop allows for a more natural gait. You decide what works best for you.

What about bindings?

The binding system is the heart of the snowshoe. Fit is crucial since the binding-boot-body interface is, in the words of Kathy Murphy, "mission critical."

Each snowshoe company has its own recommended binding system that they use on their snowshoes. They differ in ease of use, stability, how they allow the foot to move and pivot, and the materials used. Try them out to see what feels best to you. A secure binding makes or breaks your snowshoes. Frustration abounds when you're happily hiking along and the binding repeatedly comes off.

The ease with which you can slip in, tighten, and slip out of the binding, is the most noticeable factor in choosing a binding. Also consider whether the binding has adequate ankle support and flexibility. Some bindings boast flexible systems that allow your ankle to move as if it weren't strapped in, and others claim that keeping the foot solidly in place allows you greater power in controlling the snowshoe. Bindings shouldn't pinch; cutting off circulation will increase problems with cold feet. Try out the snowshoe before you buy. Many places will allow you to rent and apply the rental price to your eventual purchase.

What are crampons and why do they matter?

Crampons are the spikes on the bottom of the snowshoe that provide traction on the snow. Most are stainless steel. Mountain Safety Research (MSR) makes a snowshoe where the frame itself is formed with a jagged bottom to give additional traction. Where the crampons sit on the snowshoe depends on the shoe. Crampons sit below the toe, often on the heel, and occasionally along the frame, like the MSR shoes mentioned above. If you plan to do tricky traverses or climb steep mountains, pay special attention to crampons when you purchase your shoes. If you plan to cross icy surfaces regularly, the amount and sharpness of your crampons will matter more. Toe cleats, or the crampons found on the toe, are used for climbing and descending, while the back cleat becomes useful in a traverse.

Is there really a difference in a woman-specific snowshoe?

Women-specific snowshoes address the body differences between men and women. The women's shoes incorporate a binding and crampon system that fits a woman's smaller boot and accommodates the narrower heel. The frames of the shoes are ergonomically shaped to account for the differences in the female stride. (Women don't walk or run like men because of the angle created between the knee and thigh due to their wider hips.) A tapered snowshoe tail and nose take this gait into consideration and allow for more clearance. Please note that though a woman-specific snowshoe will add performance, one is certainly not required to enjoy the sport.

Poles: Poles are optional for snowshoeing, but their benefit becomes visible as you use them for balance and support, particularly on steep traverses or terrain. Telescoping poles allow you to adjust the length of one or both poles as needed for uneven terrain. For example, the pole on the uphill side can be shortened, while the downhill pole may need to be elongated. Telescoping poles can also shrink down to fit more easily on a daypack if you decide you don't want to use them on sections of the route.

On powder days, when you're more likely to snag a hidden root or rock and end up having to pick yourself up out of a powder bath, your pole might be your best friend.

Racers or snowshoe runners generally do not use poles, but if you are snowshoeing specifically to burn calories and get good exercise, pole use increases the arm workout.

Avalanche/Safety Gear: Every year, Wasatch avalanches claim lives. Be prepared and know how to read the avalanche signs. Call the avalanche hotline before you go, and take avalanche safety equipment into areas where avalanche probability ranks high. These steps will decrease your chances of becoming a statistic. The following list of avalanche safety gear will help keep your backcountry travels safe.

Transceiver: Transceivers or beacons transmit signals that other beacons can pick up in the event you are covered by an avalanche. They also switch to search mode to pick up the signal for others who have been buried. These technologically advanced pieces of equipment have transitioned from analogue to digital) which makes them easier to use, quicker to read) or have a combination of both. Transceivers transmit on 457 kHz. Various transceivers use a combination of LCD (screens), LED (lights), and sound to send you information. As you choose your beacon, make sure it transmits on 457 kHz frequency and has digital capability so it is compatible with other systems. Look for such things as ease of use, a secure attachment to your body, and a harness system you're comfortable with. When you have made your choice, make sure you become one with your beacon. Use it, practice with it, take your friends and snowshoe partners out to play hide-and-go-seek. After all, if you're buried below 10 feet of snow, you better hope your buddy knows how to read his beacon.

Shovel: Backcountry gear is always about weight. The best shovel is light but strong, collapsible, has an extendable handle, and fits in your pack. The grip should fit in your gloved hand. Aluminum or polycarbonate blades are the material of choice. Aluminum has unbeatable strength, while polycarbonate weighs slightly less. I like the D-grip handle better than the T-grip handle, but not all manufacturers offer the D-grip on their full line.

Probe: A probe is a probe is a probe. But there are things to consider. Some probes are longer than others, some have a thinner diameter, some weigh less, and some come packed in the handle of the shovel for ease of carrying. Most probes come with a quick-draw system that allows you to pull a cable and quickly assemble the probe. As with all gear, you must find the balance of desired qualities. Longer, sturdier probes may weigh more, but a shorter, thin one may not do the job when it really counts. Check your probe every season to make sure the cords have not corroded.

What to Wear

There is only one word you need to know about dressing for snowshoeing: layering. With layers you have thermostat control. Too hot—take some off; too cold—put some on. Snowshoeing generates a great deal of energy and thus heat. Within 10 minutes of starting a trail, I inevitably stop to remove layers. I find that I consistently need to re-layer on the return trip. In addition, winter conditions change. If a storm blows in or the temperature drops, being prepared to add a layer could, in a bad situation, save a life. Pick clothes that give you options.

You should also pay attention to the weather. Bernie Boettcher, USSSA Masters national snowshoe champion, says he checks the temperature and precipitation at breakfast. Then he checks it again an hour later. The rate of temperature rise (or fall) helps him determine what he wears, as well as the temperature itself. He suggests that if it's heating up rapidly, dress for warmer than present conditions. If the temperature stays about the same, dress for that temperature. If it drops, dress warmer than you think you need.

Check the clouds and precipitation the same way, and base your gear requirements on the worst-case scenario. This goes double for trips lasting more than two hours. If I'm not sure, I throw more layers in the car and use what seems best when I get to the trail.

Body

To give yourself maximum flexibility, control, and comfort go with three main layers of clothing:

First layer: The layer next to your skin must wick moisture away and allow your skin to breathe. This is the ventilator layer. The ventilator/base layer should be made of a thin wool or polypropylene. Cotton makes a poor first layer because it soaks in moisture and stays wet. Companies like Smartwool and Icebreaker make wicking long-underwear specifically for use as a base layer.

Pro Tip: Wear Layers

“Snowshoeing is great because no matter how cold it is outside, if you wear enough layers and do at least 15 to 20 minutes on snowshoes, you will break a sweat every time. No excuses like it's too cold. It's never too cold to snowshoe.” —*Scott Gall, Professional Snowshoer Atlas Snowshoe Team and former North American Snowshoe Champion; Waterloo, Iowa*

Second layer: The second layer is an insulator—fleece, down, wool, or some other comfortable warm layer you like to wear. On warmer days you may stop at the second layer using a fleece vest which allows core warmth but cooler extremities.

Outer layer: Your outside layer should be waterproof, windproof, and breathable. Gore-Tex is perhaps the most well-known of these fabrics, but there are many to choose from. Zippered pits in both the second and outer layer are often helpful. Keep a down jacket handy in case temperatures drop, especially on longer trips. A hood protects you during a storm.

A note about pants: Some people (myself included) wear snow pants. These are the best choice in deep or blowing snow conditions. I always wear a pair of snow pants and regulate my body temperature with my upper-body layers. Many pairs of snow pants come with side zips that allow you to zip and unzip as cooling is needed. I layer my bottom half just as I do my top, but I know some snowshoers who get too hot with such extensive layering on the bottom. Find what keeps you comfortable and dry. Because your lower body will be continuously moving, make sure your pants fit comfortably. Many professionals and training athletes include a good pair of tights in their list of staples. If you're into wearing tights, find the kind that don't retain water. Wet tights can be disastrous in cold weather, and as snow gets kicked up onto your backside, you will get wet.

Head and Hands

Remember that heat escapes through your head. Use a hat as needed for heating. On warm days, I snowshoe without hat and gloves to help me stay cool. (Although, on these days, you may want a baseball or brimmed hat to keep the sun off.) I keep them in a pocket in case the temperature drops.

A variety of glove styles are available. Thin, light gloves with waterproof or wind-proof capability are ideal. A warmer backcountry pair can be kept in your pack and used if needed.

Footwear

There's nothing like cold, wet feet to ruin a great experience. When choosing footwear, go for warm, dry, and comfortable.

Your choice of footwear will depend on the type of snowshoeing you do. If you'll be cruising deep, backcountry snow, an insulated, waterproof boot will serve you best. If you are taking a run on a packed trail, a pair of waterproof trail-running shoes will do the job. Make sure whatever you wear is waterproof or can be waterproofed.

Because snowshoeing requires foot articulation, flexible boots are essential. The height of the boot may also cause chafing on your calf. Make sure you have a good fit that works for your style of snowshoeing. Some find a lower cut boot and gaiters preferable to a higher boot, but snow conditions, temperature, the type of outing, and your comfort will be the deciding factors. I always use a mid-cut boot, but I don't race, so I don't require a light, low shoe. Kamik, an international boot manufacturer, uses OutDry technology, which keeps the boot dry from the outside in. The OutDry technology gives Gore-Tex a run for its money with this waterproof, breathable system. OutDry is laminated directly to the upper's inner side, which keeps the water on the outer surface of the shoe by sealing the inner surface. Keen, a popular outdoor footwear manufacturer, has branched into waterproof boots with their patented eVent® waterproof treatment. Their boot is lower on the calf, and I found it to be wonderfully waterproof as well as stylish. It can also double as a hiking boot.

Good socks are essential. They should keep your feet dry and cradle them in a comfortable cushion. Companies like Darn Tough, Smartwool, and Fox River carry all-weather performance socks with wicking capabilities. These socks provide non-itching cushion and can add a great deal of comfort. If needed, gaiters will keep snow out of your low-cut boots and trail runners.

Eyewear

When you're in an alpine environment, it's important to protect your eyes from the sun's reflection, from the sun itself, and from blowing snow. Get something lightweight with UV protection that doesn't bounce around on your nose. Companies like Native and Smith make interchangeable lens systems with clear, yellow, orange, or dark lenses that can be used according to the day's light range. Polarized sunglasses reduce the glare from the snow. Many sunglass companies, such as Native® build eyewear specifically for sporting. Their glasses include such features as venting holes to keep them fog free, a wrap design that keeps sun and wind from entering through the sides of the glasses, a weight of less than an ounce, polarized lenses for blocking glare, and polycarbonate lenses to prevent breakage and resulting eye damage. In addition to my sunglasses, I carry a small pair of backcountry goggles in my pack in case a snowstorm blows in. Choose eyewear with good venting, and carry a defogging wipe in case they steam up.

Essential Gear Checklist

- * Plenty of water/sport drink
- * Extra food: often used to revive in an emergency situation
- * Sun protection: sunscreen for lips and skin, and sunglasses
- * Compass, map of the area, GPS if you need it
- * Cell phone for emergencies
- * All the right layers of clothing
- * Safety and avalanche gear when appropriate
- * Small first-aid kit
- * Duct tape for binding mishaps
- * Headlamp and batteries
- * Matches or lighter in waterproof casing
- *Pocket knife