

Tips for Winter Campers

By Peter Antos-Ketcham / Green Mountain Club

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Dress like an onion. As described in my story in the Sunday Outdoors section Feb. 10, the layering of clothing (how much and when) coupled with the clothing material are critical elements of a safe and pleasant experience. What you need to remember is the axiom, "Dress like an onion." What this essentially means is dress in layers, three distinct layers to be exact. Start with a base layer of long under wear made from wool or one of the many synthetic materials out there like polypropylene. This base layer serves to "wick" or transport moisture away from your skin which helps to keep you warm and dry. Next, add an insulation layer of wool or synthetic materials to help trap and keep the warmth you generate against you. A good example would be fleece pants and a wool sweater. Your top layer should be a waterproof and windproof shell made of nylon or another synthetic and breathable material. Breathable fabric is key to help keep your moisture levels down.

Stay comfortably cool.

Perspiration management is the name of the game. Being able to add and remove these layers depending on your activity level is essential. At all times you should aim to be "comfortably cool." Carry extra clothing in case you or someone in your party becomes wet from sweat, melting snow, or an accidental fall into a stream.

Put the summer hiking boots away for the season. The right footwear is essential to safe trip. Summer hiking boots will not keep your feet warm and dry in the winter (neither will sneakers, for that matter). You'll need to get a pair of insulated boots. Felt-lined pac boots are sufficient for lower elevation snowshoe travel. These boots have an insulated removable liner with a leather and rubber outer shell. For higher elevation travel or travel above treeline, a plastic mountaineering or "double boot" may be advisable. They have the appearance of a rigid downhill ski boot but are designed to flex for hiking. They have a synthetic insulating liner that can be removed and used as a bootie for inside a shelter or tent. The outer plastic shell is waterproof and is perfect for wearing crampons.

Fuel your body.

Plenty of food and water are critical to maintaining energy levels and warding off the two main threats of cold weather: hypothermia and frostbite. Bring as much water as you think you will need, keeping in mind that the demands of breaking trail may cause you to work harder than you do in the summer. Your natural inclination is not to drink when it is cold - fight this! Don't let the cold weather keep you from drinking. Not only will you sweat from the exertion, but the cold, dry air will sap moisture from your body with each breath.

Keep your water bottles in an old wool sock or an insulated container to prevent freezing. Fill your bottles with warm water before you leave to help slow the freezing process. Another trick I employ is to keep my water bottles upside down. Water freezes from the top down so if I keep my bottles upside down the area around the lid will be the last to freeze. If you intend to be on a long day hike make sure you bring along a stove so you can melt snow for additional water.

Food is largely personal preference with hikers. I will say that winter outdoor activities are not for diet food. Bring plenty of high-calorie snacks like gorp, chocolate, cheese, and peanut butter to keep your internal stove cranking out the heat. Another way to get sugar and keep warm is to bring along a thermos of hot chocolate or hot Tang. Tea with sugar is good as well but avoid caffeinated tea as caffeine dehydrates you and dehydration can hasten the onset of hypothermia.

Know where you are going.

Another key area of winter trip planning is to know the area you intend to travel well. Go there in the summer and become as familiar with it as possible. In winter the trail and the woods will look very different. Pay attention to the height and frequency of blazing; signs and blazes could be buried in the deep snows. Remember that access and bail-out options could be more challenging in the winter. Contact the GMC to find out if the trailheads to your route and your potential bail out trails are plowed in the winter. What is a short two-mile bail out to a road in the summer could be a much longer ordeal in the winter if the parking area and road to it are not plowed. Make sure you plan for all potential contingencies and how you will get out of the woods in an emergency.

Keep an "eye on the sky."

Weather is a greater concern in the winter. Make it a habit of frequently checking the weather forecast because, as we all know, it changes rapidly in Vermont. Elevation influences temperature. A forecast of 0 degrees in the valley can translate into -20 on the higher summits. You'll lose three to five degrees Fahrenheit for every 1000 feet of elevation climbed. When you add in the factor of wind chill and exposure above treeline, the temperature could be much lower. One thing winter hikers are apt to forget is that it can rain every month of the year. If rain is in the forecast or there is a chance of rain, reconsider your trip. It will be nearly impossible to stay warm when soaked from a rainstorm. Always carry a waterproof shell to help you keep dry should you get caught in an unexpected winter rain.

Hypothermia-know the signs.

Hypothermia is the potentially deadly reduction in body core temperature. Hypothermia is brought about by dehydration, fatigue, wet clothing, and cold temperatures. We all know the best way to deal with hypothermia is to prevent it. The best way to do this is to stay well hydrated, well fed, and dry through proper clothing choices and conscientious moisture management (minimize sweating). Chemical heat packs and hot water bottles placed inside clothing can do wonders if you have a hard time staying warm. Another key to avoiding hypothermia is not exhausting yourself. Start out by taking short hikes and working your way up to climbing bigger summits when you are in better condition.

Some warning signs for hypothermia include: the inability to keep fingers and toes warm, uncontrollable shivering, stumbling, extreme fatigue, trouble with fine motor skills (e.g., unzipping a jacket), slurred speech, vision problems, forgetfulness, confusion, and fainting. I tell folks to watch out for the "umbles." Pay attention for mumbling, fumbling, and stumbling. Hypothermia is insidious and can overtake you without you realizing it.

If you find someone in your party is in the beginning stages of hypothermia the best course of action is to stop whatever it is that is causing the cooling of that person's core. Get him or her

into dry clothing, allow time to rest, eat, and drink warm, (but not hot) sweet fluids. This should help reverse the trend to the point that they can travel and you can evacuate immediately. When winter hiking, team up with another person and check in with each other frequently because you may not be able to recognize that you are in the beginning stages of hypothermia. Once it sets in it robs you of your ability to problem solve and reverse the situation. The GMC recommends that the minimum number in a winter hiking party is four people - up to ten is ideal. This allows folks to pair up and check in with each other.

Frostbite-know how to prevent it.

Like hypothermia, frostbite is another big concern. It is the localized freezing of bodily tissues and, like hypothermia, frostbite can be prevented. The best ways to prevent it is to be aware of the conditions that cause it and avoid them. Avoid exposing skin, getting wet, wearing clothing that constricts, or dehydrating yourself. Also be cautious of the wind and take note of previous frostbite injury. It is worth checking with people in your party to see if anyone has had frostbite before. Generally people who have been frostbitten are more susceptible to cold injuries. Here is a mnemonic from the ADK's Winterwise - A Backpacker's Guide: To prevent frostbite wear WILD (Windproof, Insulating, Loose, and Dry) clothing and watch out for DAMP (Dehydration, Altitude, Medications, and Previous injuries).

Very mild frostbite or as it is more commonly known, frostnip, can be re-warmed in the field and covered to prevent refreezing. More serious frostbite should not be re-warmed in the field rather these folks should be evacuated as soon as possible. The potential for refreezing is high and studies have shown that the damage from freezing, thawing, and refreezing is worse than if the frostbite was left alone until it could be treated in a hospital.

Know first aid. Ultimately the best way to protect yourself from winter medical concerns is to get basic training in prevention and wilderness first aid. The GMC frequently offers Wilderness First Aid courses and we highly recommended it for anyone who travels in the backcountry regardless of the season.

Walk lightly....

The means by which you will travel over deep snow is as an important consideration as your clothing. Unless a trail is very well packed or only covered with a few inches of snow, you'll need snowshoes or skis so that "post-holes" are not left in the trail. When post holes are frozen and filled in with fresh snow they become a tripping hazard for other hikers. Post holes have also been found to hasten the melting on snow on a trail on warm sunny days. Post-holing is extremely fatiguing and unpleasant. With today's lightweight aluminum snowshoes, safe winter travel is easier than ever and trails can remain post-hole free. Most areas of the Long Trail are more appropriate for snowshoes than skis but there are many areas that make for fine backcountry skiing and touring. Climbing skins will likely be necessary for many ascents along the trail. Suggested winter routes and recommended equipment are listed at the beginning of each division summary in the Long Trail Guide.

Leave No "Waste."

Leave No Trace practices are just as applicable in the winter as during the rest of the year. The most important area of Leave No Trace in winter is protecting water quality. Always bring a

shovel to dig out privies on the trail in the winter and use them. If no privy is available, use your shovel to dig down to bare ground and dispose of your waste in the "cathole" fashion, if possible. Make sure you are 250 feet (75 adult paces) away from trails and water. The cold weather will preserve your waste until spring. Make sure you take the time to dispose of it properly so as not to have it appear in trails or campsites in the spring when the snow melts.

Preventing cabin fever.

Winter is the longest season in Vermont and outdoor adventures are a great way to keep cabin fever at bay. Are you new to winter travel? Join one of the many GMC Section led trips this winter or participate in a GMC Education Workshop. The GMC is full of experienced winter travelers who would be more than happy to share their experience with you. Be safe and have fun this winter!

Tips for Enjoying the Green Mountains in Winter

The Long Trail / Appalachian Trail System are full of exciting winter hiking and camping opportunities. Winter can be a dangerous time to be in the mountains but by planning ahead, and preparing properly, a winter outing in the backcountry can be a safe and enjoyable experience. The Long Trail was not designed for winter travel so please keep the following in mind when planning your outing:

- The Long Trail is marked with white blazes, which are difficult to see against a snowy background and frequently buried beneath the snow.
- Deep snow may obscure all signs of the trail. Topographical maps, a compass, and the knowledge how to use them are essential.
- Daylight hours are short in the winter. Darkness may come on suddenly. Begin your trip early in the day and be prepared with a headlamp just in case.
- Stay alert for the signs of hypothermia and frostbite. Know the signs and symptoms and how to treat them before you set out. Consider taking a Wilderness First Aid class.
- For safety, never hike alone in winter. Plan on a group size of four to ten people.
- Be prepared to keep warm with nothing more than the equipment you carry. Never count on a wood fire or stove to keep you warm.
- Plan to encounter winter weather at the higher elevations anytime from early fall through late spring.
- Use skis or snowshoes. Post-holing is tiring and makes the trail unpleasant and dangerous for the next hiker. If you are new to snowshoeing come to the GMC Snowshoe Festival on January 8th and demo a pair for free.
- If you are not an experienced winter hiker, make your initial trips day hikes in areas that you are familiar with from your summertime hiking. Go on trips with experienced winter hikers or sign up for a GMC Introduction to Winter Hiking and Backpacking class.
- Dress in layers like an onion and add and remove clothes to minimize sweating.
- Eat and drink frequently. Dehydration hastens the onset of hypothermia.
- Carry a small shovel so you can dig out privies and use privies whenever possible to properly dispose of your waste.

Pete Antos-Ketcham is GMC's Education Coordinator and resident winter aficionado.

Suggested Reading: AMC Guide to Winter Camping (2nd edition) by Stephen Gorman and ADK's Winterwise - A Backpackers Guide (2nd edition) by John Dunn. Additional books include Backcountry Ethics and Wilderness Ethics by Laura and Guy Waterman and Winter - Notes from Montana by Rick Bass.