

Camping in cold weather

Compiled by:

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In order to help all the scouts and families on our winter campouts, the leaders have put together some hints on how to keep warm and safe.

The most important part of the body to keep warm is the head. Twenty to forty percent of your body heat can be lost through your head. A wool or fleece cap will do the trick nicely. A nice alternative to the knit cap when it's not too cold is a felt hat. "Crushable" felt hats are really great for camping (especially backpacking). The Scout leader hats work nicely! A pair of gloves will also keep your hands nice and warm.

The following information is from the Boy Scout handbook and Boy Scout field guide. Both recommend dressing in layers: an inner wicking layer and outer insulating layers. The outer layer can be taken off as the weather, or you, warm up.

The first layer is the "wicking layer." The wicking layer is the layer right next to your skin. No matter what the temperature is, humans sweat. When you are active, you sweat more. This is the way our bodies regulate our temperature. If it is cold out, and the moisture from sweat is kept close to the skin, you can get chilled and become hypothermic (cold) in a big hurry. So the key to that inner layer is to draw the moisture away from your skin. As you can probably surmise, cotton is a very poor wicking material. We love to wear cotton on hot days because it keeps the moisture close to our skin, which keeps us cool, exactly the opposite of what you want when you are outdoors in the cold. A good inner layer is a material that draws the moisture away from the skin. Back "in the day" the only natural material which did this was silk. Thanks to modern technology, we now have many man-made materials which work better than silk. Polyesters make an excellent inner layer. Polyester is light, wicks moisture away from the skin, resists body odor, and dries quickly if it gets wet. It comes in various weights. Polyester long underwear is available locally at most sporting good stores, and all outdoor/wilderness stores (REI, Adventure-16), and on line at Cabela's (cabelas.com).

For the middle layer, a regular shirt can be worn over the polyester long underwear. For the next layer, a warm sweater or fleece jacket works well. Finally, the outermost layer would be a waterproof shell or jacket to keep wind and rain out. That's a total of 4 layers. It is also a good idea to carry a poncho that covers down to your ankles to cover everything up if it rains.

The next part of the body that is important to keep warm is the feet. Because the feet are enclosed in a shoe, they tend to sweat all the time. A polyester inner sock and an insulated outer wool sock work very well to keep your feet nice and dry. Modern material technology has now given us an all-in-one sock, with a wicking layer and an insulating

layer together in one sock. It is always best to carry a couple extra pairs of socks. If your shoes get wet you can use an old Boy Scout trick: always travel with a couple of zip lock bags. If your shoes get wet, change into dry socks, put your foot in the zip lock, and then put on your shoe. Your feet will be dry and toasty warm. Waterproof your leather boots before the trip, but NOT if they have a breathable treatment such as Gore-tex. Repeat treatment annually if needed.

Sleeping

Keeping warm when sleeping on a cold night can make the difference between a good night's sleep and a miserable one.

It is important to have an insulating layer between the ground and your sleeping bag. There are many sleeping pads on the market. Modern material technology has provided many light, efficient materials. An air mattress works well, but beware: air is an excellent conductor of cold from the ground to your sleeping bag and body. So if you wish to use an air mattress, bring a thick insulating blanket to place UNDER the air mattress.

A good sleeping bag is crucial too. Sleeping bags keep you warm by trapping air between the filling materials of the bag. This filling material is either a synthetic material or goose down. Both filling materials have advantages and disadvantages. Goose down is by far the "gold standard." It is light, highly compressible, and for its weight is very warm. It is also the most expensive.

Sleeping bags come with a temperature rating. Unfortunately there is no industry standard. Most manufacturers tend to over-rate their bags. One can use the advertised rating as a "rule of thumb." For the campouts we go on, a rating of 15 to 20 degrees will probably keep you warm in most situations. Remember, some people sleep cold and some sleep warm.

What you wear when you sleep is also very important. The single most important thing is to wear is that fleece or wool cap that you wore during the evening. (Unless you have a mummy bag and pull the draw-string so your head is fully closed in and only part of your face exposed.) Dry polyester long underwear (even wearing the pair you wore during the day) makes great pajamas. Cotton should be avoided. Some experts say you should not wear too much inside the sleeping bag (particularly in a down bag), as this does not allow for air to be trapped between your body and the bag.

Footwear is also very important. All feet sweat in their socks all day long. It is extremely important to bring a fresh, dry pair of socks to change into before you go to bed and/or a fresh pair for the morning. An extra pair of shoes is a must, in case your first pair gets soaked. Unless it's raining or extremely cold (under 20 degrees), you can shove your boots under the tent floor by the entry - not inside, so they air dry through the night. If there are

a couple of people in an unventilated tent overnight, condensation gets everything wet inside - including shoes/boots, which need to be dry.

Miscellaneous:

Don't forget to drink plenty of water, *even when it's cold*, especially when camping/hiking in dry climates and high altitudes. Dehydration is not only a summer problem, when it's obvious: In cold weather, people don't realize as early that they might be getting dehydrated.

For hiking: In addition to the foregoing, if you're carrying the Boy Scout's "10 essentials," then you're prepared. If not, then water, a flashlight, matches and a poncho are far more essential when hiking in the winter. Remember, the sun is setting before 5 pm, and earlier on the "back side" of mountains and in canyons.

Summary:

Bring these to keep and stay warm:

1. A wool or fleece or felt cap that fits over your head and ears.
2. Gloves
3. An inner layer of clothing designed to wick moisture. Polypropylene, silk, or similar long underwear (but not cotton)
4. Three outer layers for the upper body
 - a. Shirt
 - b. Fleece or sweater
 - c. Water proof jacket
5. One outer layer for the legs
 - a. Pants
6. Two pairs of socks per day, preferably of the type that wick away moisture.
7. Extra pair of shoes
8. Warm sleeping bag rated to 15 or 20 degrees or lower. If rated above, an extra wool blanket or two.
9. Sleeping pad or other insulation between your sleeping bag and floor of your tent.

I hope this information helps. If you have any questions on these subjects, contact Droad396@aol.com (Glenn Roeder) or GScottSobel@yahoo.com (Scott Sobel). Dr. Roeder received survival training from the United States Air Force where he was a reservist for over 15 years. Scott is an EMT, a former National Park Service Ranger, and a former Alaskan.

Pack and Troop 360 thank them both.