

# Cold Weather Camping

Cold weather camping represents one of the greatest challenges a Scout will face. With the proper planning and knowledge, this challenge can be easily attacked. Without proper planning, the challenge could prove to be a dangerous defeat. This guide is intended to provide the Scouts with a quick start course of the skills of cold weather camping. This guide is broken down into several key areas that include clothing, the layering system, special equipment, bedding down, nutrition, and cold weather first-aid. We hope everyone will accept this challenge and most importantly, enjoy it!

## Clothing

The clothing that your son brings on a winter camping trip will be one of the most important determinants of his warmth. While the clothing will not directly provide warmth, it rather provides insulation to preserve body heat from activity. Clothing material can primarily be broken down into wool, synthetics, cottons, and blends. Each type of material holds its own advantages and disadvantages. Wool, although itchy, provides warmth when wet. Synthetics provide waterproof and windproof advantages yet lack breathability. Cottons are primarily used in warm weather camping by providing lightweight, cool clothing. Finally, blends represent a mix between cotton or wool and synthetics. The Scout uniform represents an ideal example of blends.

Before running through a recommended list of clothing for the weekend, it is important to address several important issues. First, perspiration can prove to be a serious side effect of intense winter activity. To avoid this, it is important that the first layer of clothing be able to wick moisture away. Polypropylene long underwear is the solution. Commonly referred to as "Wicker's", poly's wick moisture away from the body allowing your body heat to evaporate your sweat and ultimately reduce any chilling. The second important issue concerns breathability. Waterproof materials do a superb job in keeping us dry, however, they hold one important drawback. They lack breathability. What this means is that they counteract the effects of Poly's by trapping the moisture that the thermal underwear attempts to wick away. Ultimately, when this occurs, it is important to change layers throughout the day to avoid excessive moisture build-up that brings down the body temperature. Finally, the proper clothing on your feet is important to enjoying a cold weather weekend. Poly liners should be worn under wool or wool synthetic socks in order to wick away moisture. Wool socks help combat cold feet in the event that your socks get wet. Wool, unlike other fabrics, will still keep you relatively warm if wet. Be sure that your socks are not too tight, as this can reduce blood circulation and lead to cold feet. In the event your feet to get wet, be sure to change into a dry, clean pair of socks as soon as possible!

The following list represents the recommended clothing for a two day winter camping trip:

- 2 shirts (wool or flannel)
- Turtlenecks
- 2 pairs of wool or casual pants (similar to Dockers)
- Polypropylene long underwear
- Boots (Waterproofed)
- 2 pairs of heavy socks (wool recommended)
- 2 pairs of lighter socks (preferably polypropylene liners)
- Windbreaker
- Wool stocking cap, ear warmers, & neck gators
- Parka or heavy jacket
- Wool mittens (preferable to gloves)
- Poncho

If it is at all possible to single out one important feature of clothing, it would be that no Scout should have sweat suit material in his pack. The only exception to this rule is a hooded sweatshirt for sleeping at night. We cannot over emphasize how important this is, sweatpants absorb moisture like a sponge and hold no wind breaking capabilities.

## The Layering System

While clothing will provide the insulation to maintaining a constant body temperature and steady warmth, it is useless if not worn properly. Layering represents an individual's personal thermostat. As you begin to feel cool, you can put on another layer. As your body begins to sweat, you simply remove a layer. More often than not, this body temperature regulation can be performed through the wool cap. The body loses 80% of its heat through its head. A wool cap helps maintain this heat within your body, warming you rather than your surroundings. The layers begin with the polypropylene long underwear and work their way up to the parka. In short, the primary importance of the layer system lies in body temperature regulation. For this reason, it is important to have various layers packed in order to properly regulate your body temperature.

## Special Winter Camping Equipment

This section is intended primarily to introduce equipment concerns that need to be addressed when camping in extreme cold weather. The first, single most important piece of special equipment is fortunately the cheapest. Zip Lock Bags! All underwear, socks, and long underwear should be packed in zip-lock bags. All other clothing should be stored in something waterproof. This can range from a garbage bag to stuff sacks. All the wool and polypropylene in the world won't do any good if it is wet from the beginning. Dryness is the key to

success. Foam pads are the second most important piece of special equipment. The ground is cold! When you are sleeping, it is important to have that added insulation under you to avoid losing body heat to warming the Earth. Remember the rule of thumb, it is a good idea to have two to three times as much insulation under you as you do above you. The next most important piece of equipment will more than likely not cost anything because you probably have it lying around the house. All Scouts should carry a wool blanket with them on the weekend. The Troop does have a limited number for emergency use. If you cannot locate a wool blanket (Army blanket), ask around. Someone is bound to have a wool blanket somewhere in a closet. Finally, the next important piece of equipment is not one that we want everyone to run out and purchase for the weekend, however, in the long run, it may want to be considered if your son enjoys Scouting. Mummy sleeping bags provide a great degree of warmth due to the contour and snug fit of the bag to the body. Unfortunately, the degree of warmth represents a direct function of price. These bags can range anywhere in price from \$50 for a 35 degree bag to \$300+ for a zero degree or sub-zero degree bag. For recreational use, a good quality zero degree to fifteen degree mummy bag can be purchased for approximately \$60 to \$80. If you have questions on a specific bag, please let one of the adult leaders know.

## Bedding Down

Sleeping in the winter is really no different than camping out in the summer. However, there are a few important tips that require mentioning. The first most important tip is to never wear wet clothes to sleep. Not only will it decrease your body temperature, it will also cause moisture in your sleeping bag that will decrease the insulating properties of the bag. Secondly, if you do get cold during the night, do not place your head inside the sleeping bag as this will cause moisture from your breath to have the same effect as mentioned above. Wearing a hat while your sleeping will produce the same results as sticking your head inside the bag. Finally, the insulated capabilities of the bag come from warmth being trapped in the dead air space of the synthetic fibers (or bag fill), be sure that the bag is as fluffed out as possible to increase the insulating characteristics. In addition, it is recommended to keep the bag in a stuff sack until you are ready to bed down, this will keep moisture in the air from finding a place on or in your bag before you bed down. When storing your sleeping bag at home, hang it in a closet rather than in the stuffsack in order to avoid crushing the fill in the bag.

Preparing your bed roll for winter camping requires a little more effort than a summer night under the stars. Insulation under you is the key to enjoying a warm winter night. The first layer down should be a plastic ground cloth to keep moisture from the cold ground from coming in contact with and ultimately penetrating your sleeping bag. On ½ of the ground cloth layout the sleeping pad. On top of the pad layout a folded wool blanket (army blankets

work great) to add extra insulation from the cold ground. Place your sleeping bag on top of the wool blanket and fold the remaining ½ of the ground cloth on top of the bag. The ground cloth on top of the bag helps to prevent dew and frost from forming on the bag and ultimately reducing the insulating capabilities. In extreme cold weather, newspaper, hay or more natural materials such as leaves and pine needles can be placed under the sleeping pad to provide more insulation. Finally, get warm before going to bed. Increasing activity by cutting wood for the morning fire or doing jumping jacks increases your metabolism and body heat before hitting the sack!

## Nutrition

Menu planning and a properly balanced diet become crucial in cold weather camping. Unfortunately, it is sometimes difficult to do. Who wants to cook and clean a full course dinner or grand slam breakfast in zero degree weather? Most important to realize is that you will require a greater calorie intake in cold weather. In addition to increased activity, increasing your metabolism is a good way to increase your warmth. A proper diet should be high in carbohydrates and protein. Many of the menus have already been planned and approved by the adults. However, we would recommend sending some extra snacks along for the trip. Rather than sending cookies and chips, replace them with cheese and crackers, granola bars, and trail mixes (My favorite is Cheerios, chocolate chips, peanuts, raisins, and M&M's). Foods high in protein result in a slow release of body heat as your metabolism digests the foods. Candy and other high sugar foods result in a quick release of body heat that causes your body temperature to drop below what it was originally. Ultimately, it is important to have a high calorie diet that is high in protein and carbohydrates.

## Cold Weather First Aid

This subject always become an important topic that I hope no Scout will ever have to use. However, up to date knowledge is of extreme importance. In addition to basic first-aid skills that many of the Scouts are educated on, cold weather first aid concerns and safety issues often take precedence on cold weather outings. As a refresher to cold weather first aid, it is important to review common problems and remedies found in cold weather camping:

Dehydration- Excessive loss of body water that impairs the ability to reason, so the victim may not react properly. Prevention:

1. Drink at least 2 quarts of water a day
2. Avoid dehydrating foods (High Protein) and fluids (coffee, caffeine).

Treatment includes increasing liquid intake and keeping warm. Severe cases require immediate medical attention.

Hypothermia - Lowering of the inner core body temperature. Can and usually does happen in temperatures above freezing. The victim may not recognize the symptoms and may not be able to think clearly enough to react. Injury or death may result. Prevention includes good nutrition, consumption of high-energy foods, proper clothing, and increased activity. Treatment includes providing shelter and warmth for the victim from the elements, hot drinks followed by candy or other high sugar foods to jump start the metabolism, and increasing body heat through huddling. If hypothermia is suspected medical attention should be contacted as quickly as possible.

Frostbite - Tissue injury involving the actual freezing of the skin and underlying tissues. Recovery is slow. Once exposed, the victim will be predisposed toward frostbite in the future. Prevention includes proper clothing, good nutrition, drinking fluids, immediate treatment of minor symptoms, and use of the buddy system to check face, nose, and ears of fellow Scouts. Treatment includes warming area through exercise, heat, or water (Do not rub with snow).

Snow Blindness - Inflammation of the eye caused by exposure to reflected ultraviolet rays when the sun is shining brightly on an expanse of snow. Prevention includes wearing sunglasses when any danger is present. Treatment includes blindfolding the victim, rest, and avoided future exposure. Snow Blindness heals in a few days without permanent damage.

## Conclusion

It is our hope that this cold weather survival guide has been helpful in preparing you for your cold weather trek. Please do not throw it away. It will provide a valuable resource for years to come. The information on cold weather camping is abundant. If you have any specific questions or are interested in learning more about anything discussed in this packet, please do not hesitate to contact us. The Troop is filled with extremely knowledgeable and experienced Scouters that would love to pass this information off. Enjoy the weekend!

## More Cold Weather Tips

If you only have a rectangular sleeping bag, bring an extra blanket to pack around your shoulders to keep air from getting in.

Use a ground cloth (or poncho) to keep ground moisture from forming your bag.

Put a hand warmer (in a sock) in the bottom of your sleeping bag to warm it up before bedding down.

You may want to take a bottle of propane into your tent with you at night. This will keep it warmer and make it easier to light the stove for breakfast.

Placing ground pepper in your socks prior to a day in cold weather increases the circulation to your feet and reduces that chance of cold, wet feet.

Avoid eating snow. The coldness requires too much energy to convert to water and could result in a decrease in body temperature.

Using deodorant on your feet before a day in cold weather reduces the chance of sweating which can cause a chill in your feet.

Use the buddy system to check each other for signs of cold weather health problems. Notify the adult leadership if any symptoms occur.

Place the next day's clothes inside your sleeping bag as added insulation and to warm them up.

Stay warm and dry. Have Fun!