

WINTER SURVIVAL & HEALTH PROBLEMS

This is the only an overview, study other resources written for Scouts and Scouters.

Think of your body as an efficient portable furnace able to keep you at 98 degrees F. If you keep it stocked with fuel and fluids and well insulated you can stay warm. An open fire is NOT the way to stay warm. An open fire is NOT the way to stay warm. In fact, be suspicious of the insulation value of your clothing if the fire warms you up. Wearing the correct clothes, exercising to warm up if you get a little cool, maintaining a high calorie diet, rich in fats and drinking large amounts of water are the ways to stay warm.

DEHYDRATION-this is an excessive loss of body water. It is usually the root of many cold weather problems. Even if only slightly dehydrated, your body is not working efficiently. The body has to work harder to burn the fuel for warmth. The circulation becomes sluggish; therefore it is harder to burn the fuel for warmth. The circulation becomes sluggish; therefore it is harder to jump around the blood which delivers warmth and oxygen. The cold itself suppresses your thirst mechanism and has diuretic effects causing you to make greater amounts of urine. Likewise you lose more moisture breathing in cold air. Your body has to work harder to humidify the very dry air and heat it has it enters your airways.

Symptoms-You may notice; tiredness, headache, aches, feeling sick all over, chest discomfort, coldness (especially extremities), muscle cramps, infrequent urination, dark colored urine, judgment impairment, nausea, loss of appetite decreased skin elasticity, and finally a weak, increased pulse rate.

You also have a much greater susceptibility to hypothermia, frostbite, exhaustion and altitude sickness.

Prevention-Drink at least 2-3 quarts of water per day. A big athletic Scout may need as one gallon of fluids while working hard or competing in events. In extreme cold, keep a water bottle inside your coat. This water liquid can be readily absorbed into your system. Minimize caffeine containing foods and fluids, i.e. coffee, Mountain Dew and colas— these dehydrate your system and constrict capillaries making blood flow less efficient. An overabundance of high protein foods (more than 20% of calories) causes the body to use too much water and energy to metabolize the proteins. Monitor the color of your urine, it should be clear or light yellow. "The same color going out as coming." If urine is darker, increase your fluid intake. Adults, of course, smoking constricts blood vessels, which in turn, decreases blood flow, it makes you colder and works our cardiovascular system harder. Alcohol, dehydrates you, gives you a false sense of warmth, and increases your chances for hypothermia. (It's prohibited.)

Treatment-rest; get out of the cold if possible, increase your fluid intake by steadily sipping fluids, especially electrolytes rich drinks like Gatorade.

HYPOTHERMIA-the core body temperature is too low. "Killer of Unprepared". Preparation is everyone's job; you can't be over prepared. Hypothermia is one of the most common tragedies, most ignored and to ignore hypothermia may result in death. There are four factors:

1. Cold-45 degrees or below.

HYPOTHERMIA

2. Wetness-rain, snow, immersion or condensed perspiration.
3. Wind-the chill factor, there is a 14 degree drop even with a light wind.
4. Person-ill prepared, exhausted or hungry.

Symptoms-the victim feels very cold, experiences uncontrollable shivering. For the brain to work well it must stay warm, as it cools changes happen. Hypothermia is sneaky; first subtle judgment changes then the person may be grumpy, have memory lapses, be less alert, very tired, slurred speech and uncoordinated walk and hand movements. As the brain temperature drops there is more disorientation and they become incoherent. Finally, shivering stops, the victim thinks he is warm and becomes unconscious. The person's pulse and breathing becomes slow, the skin is bluish and death follows.

Prevention-sleep in dry clean clothes, rest, eat a high calorie diet with 40% fat content and drink lots of no-caffeine liquids. Wear the "Wright" clothes-wicking, warmth, and wind layers to insulate yourself. Get out of the elements if possible, and exercise to stay warm. ***Tell someone you are cold. It is not macho to be cold, it is dangerous.*** Make sure the whole group uses the buddy system to watch for symptoms. Check each other for hypothermia by having everyone walk heel to toe for 30 feet or touch your thumb to your little finger—if you can't do it treat *now*.

Treatment-get the victim out of the cold and wet and into shelter. Stay with them and remain calm. Get all wet clothes off and into dry clothes; make sure their head is covered with a warm hat. In milder cases walk the victim around, give them warm decaffeinated beverages and quick energy foods. In more serious cases provide skin to skin contact in a sleeping bag to transfer body heat. Don't give the semi-conscious victim food or shock. Seek immediate medical attention.

FROSTBITE—Is tissue injury caused from freezing of the skin and underlying structures. The farther from the warm body core or exposed to the weather, the more susceptible the skin is. Cold toes should not be ignored. Once frostbite happens, the victim is predisposed in the futures.

Symptoms-In milder cases the area is reddened or pale, it is painful or has a burning stinging sensation. In more serious cases the area is not painful, it has become numb and is hard to move.

Prevention—***Tell someone you are cold.*** Ensure proper insulation; wear loose fitting boots and clothing. Cover exposed skin, maintain hydration, good nutrition, and use the buddy system.

Treatment—Don't rub the affected area with snow, don't rub it at all; use mildly warm water not hot. Lace the victim's hands under armpits and cold feet against the chest. Check for hypothermia and shock. Don't thaw out a frozen limb in the field; it is better to walk out then seek immediate medical help.

SNOWBLINDNESS and sun exposure—the damage to the inside of the eye and skin is caused by ultraviolet rays of the sun intensified by the glare from the sun off the snow.

Symptoms—include headache, watery red irritated red eyes and light sensitivity.

Prevention—wear sunscreen, lip balm with sunscreen and UV blocking sunglasses.

Treatment—with painful eyes, blindfold the victim and have them rest.

CHRONIC ILLNESS AND WINTER CAMPING

Diabetes can be a serious problem for the camper who is not prepared. Cold weather changes insulin needs for the diabetic. It is mandatory to monitor blood glucose before and after any activity to identify changes in food intake or insulin needs. Use the buddy system to watch for symptoms and have high energy food available at all times.

Asthma can also be a life-threatening problem for your campers. The cold air, the smoke from campfires, dust and exercising in these conditions can trigger an asthma attack. Make sure each asthmatic has their inhaler(s) and YOU also know when and how they should be used. Stay with the victim and stay calm.

In both cases it may be necessary to seek immediate medical attention.

WINTER SURVIVAL

Know your enemy! Never underestimate the power of cold, wetness and wind. Don't overestimate your own abilities. Make sure you are ready for all the "what if" situations. Remember our motto is "BE PREPARED".

1. Always tell someone where you are going and when you plan to return.
2. Always advise someone if you change your plans or location.
3. Always carry several means of communications, i.e. whistle, mirror, cell phone, etc.
4. Always take someone with you, *never* go alone.
5. Plan your outings so you return well before dark
6. Always wear proper clothing and equipment; remember the weather can change quickly.
7. Have an adequate supply of water and high energy trail food to help maintain your body temperature.
8. Keep your clothes as dry as possible.
9. Always carry raingear, your 10 essentials, and a first aid kit and know how to use them.

IF YOU GET LOST

Remember that there is no shame in getting lost, the tragedy is coming out in body bag.

1. STOP, sit down, THINK and don't PANIC.
2. Stay in one place; "hug a tree", build a shelter and keep as dry as possible.
3. Shout or use a whistle (the whistle uses less energy and can be heard further.)
4. Rarely wild animals that can hurt you, if you hear a noise, yell or blow your whistle.
5. You have 200 friends looking for you; your family doesn't have to be rich to have search teams out looking for you.
6. Your family will NOT be made at you.
7. If you can get high enough you might be able to see a landmark.

Cold Weather Camping

Reproduce for
your Scouts

What to wear--Layering is the Secret

Wicking layer-This is next to your skin, wicks the moisture away and traps heat. Silk, wool, synthetic blends, light synthetic fleece, polypropylene. It works better when it's clean--change everyday. NEVER COTTON-HOLDS MOISTURE.

Warmth layer-Pants, shirts, turtlenecks, BDU's, sweaters and hats-you lose 80% of heat from your head. Wear knitted cap over BB cap. They should be loose fitting. Wool-will insulate even when wet, polartech, polarfleece. NEVER WEAR JEANS.

SPL'S & ADULTS---WALK THE TALK--YOU SET THE EXAMPLE FOR YOUR SCOUTS

Wind layer-Wind pants, Ski bibs, gloves and mitten shells, coat or anorak **with** hood. Poplin, nylon, supplex, gortex-has microscopic pores, which will let moisture out and not let water in. In REI studies the wind layer increased your warmth 10-25 degrees in still air and in windy conditions **50 degrees**. Have a poncho--in wet snow, sleet wet coats will not insulate and keep you warm.

Boots-Pakboots (Roomy fit) with rubber bottoms and breathable leather tops, with liners you can remove and put in your sleeping bag so you put on warm dry boots NEVER LEATHER gets wet and stays wet. Bring Lots of Socks, change often and should be polypropylene, wool. NEVER COTTON. If your feet are cold you are miserable. Moon boots don't let feet breathe. Apply waterproof sealant to boots yearly. **Gaiters**-protect pants and top of boots, nylon or gortex Very Helpful to have.

Remember: Clean-sweat & dirt mat down the air spaces that keep you warm.

Overheat-remove layers to prevent sweating, if you are damp, you will get cold.

Loose layers-air spaces keep you warm.

Dry-brush off snow to stay dry, use breathable fabrics, will keep you warm so you don't get cold

Remember C.O.L. D. so you stay warm!!

You don't need a fire to keep you warm, drink lot of water, high calorie intake, exercise and dress properly.

Have a personal cooler to keep snacks in and a place to sit down off the cold wet ground.

Food-for each 1000ft up in elevation add 5% more calories at 9000ft you need 20% more. Plan on 3000-4000 calorie intake, 40% complex carbohydrates-rice beans pasta, breads, 40% fat, only 20% protein- it takes more water and energy to digest. Have a snack and drink water at night to sleep warm. Simple sugars burn fast; whereas, protein, fats and complex carbohydrates burn and release energy slowly.

Cold Weather Camping, cont.

Water-the dry cold air draws moisture out when you breath, and cold has a diuretic effect; plus your thirst mechanism is turned off by the cold. **Drink 2-3 quarts of water/day.** Drink decaffeinated beverages. Watch for **clear urine.** Ward off dehydration which upsets your metabolism and makes it easier to develop hypothermia.

Sleeping warm

Eat before you go to bed.

Drink warm fluids, i.e. jello water, soup, decaf tea.

Put on all dry & clean clothes to the skin before turning in, but not waterproof material.

Exercise before you go to bed.

Waterproof ground pad, closed cell foam pad NOT air mattress, not a cot.

Wear hat or hooded sweatshirt to bed.

Get out of the wind, create layers use a sleeping bag cover.

Use a liner-will give you a 10-20 degree warmer sleep.

Buy a warmer bag mummie style (than you think you need). or

Put two bags together Or/And

Cut down dead space (that you have to heat) with a coat over the bottom.

Sleep in the fetal position with tomorrow's clothes under your hips and shoulders.

Sleep close to another person.

Don't overdress.

Secrets to staying Warm:

Tell someone you are cold, before you get really cold, they can help you problem solve to get you warmed up.

Change your socks every 2-3 hours, have wool and polypropylene socks several pair.

Have mittens, wool and 1-2 pairs of gloves.

Drink water OFTEN, eat lots of high calorie food.

Have waterproof pack boots that fit LOOSE even with 2 pairs of socks--check these every year with growing boys

Keep your head covered.

Have a plastic bag to put damp or wet clothes in, so the dry stuff stays dry.

VERY IMPORTANT PRIOR TO GOING TO BED:

1. Do not wear any clothing that was worn during the day
2. Be sure sleeping clothes including socks are clean and dry-not even damp
3. Place removable boot liners in sleeping bag-will be dry in the morning
4. Wear stocking hat

SUGGESTED WEBELOS PERSONAL GEAR

Note: Dress appropriately!! Temperatures will vary from -10°F to +35°F.

Scouts NOT dressed appropriately, will not be allowed to participate in some, or all activities. Layer your clothing so you can adjust to each activity.

- Parka or heavy winter coat (with hood preferred)
- Wind pants (waterproof) or snow pants
- Long underwear (NOT COTTON)
- Wool pants (NOT COTTON) OR Snow Pants
- Wool socks—extra socks, 4 pair
- Snow boots / pack-boots / Sorrel-type with extra felt liners
- Wool or stocking cap—covers ears
- Mittens or gloves (mittens are warmer) at least 2 pair
- WATER BOTTLE
- Scarf
- Sunscreen & "Chapstick" type lip balm
- Sunglasses
- A hard sided cooler, about 24" x 18" x 10" (you'll sit on it, too!)
- Daypack

Tennis shoes, summer boots, blue jeans or similar cotton clothing are NOT appropriate. If you have questions regarding what IS appropriate, please contact your Scoutmaster, or refer to the Scout Handbook.

STAYING WARM

The key to keeping warm are in the words **COLD**.
Use the letters C-O-L-D to remember the keys to staying warm:

KEEP CLEAN— Keep yourself and your clothes clean. Dirt and body oils that build up on clothing destroy its insulating qualities.

AVOID OVERHEATING— Avoid overheating. Avoid wearing clothing that cannot be removed in layers as needed.

LAYERS— Yours clothing system should be designed so layers can be added or taken off. Proper layering helps to maintain even body heat. Layers should be loose fitting.

STAY DRY— Keep dry. Wet clothing removes heat 200 times faster than it will dissipate through dry clothing. Wet clothing means trouble.
