# Cold Weather Camping Info from The Ol' Buffalo

**Information gathered from the following website:**

**http://www.three-peaks.net/coldcamp.htm**

**FOOD AND COOKING GEAR**

You may have heard the term KISMIF as Keep It Simple, Make It Fun. In winter camping it stands for Keep It Simple, Make It Filling. Your food should require little or no preparation and be filling and high energy. Some experts recommend spicy foods as they dilate the circulatory system, keeping the body warmer. However, if you are not used to spicy foods, stick with foods you are used to on winter outings. Winter camping can stress your system to a certain extent and there is no need to stress it more with spicy foods.

On short term winter camp outs, don't worry about excellent nutrition. There is no need to have fresh fruits and vegetables etc. Instead, plan instant, high energy foods. Instant oatmeal, cream of wheat, etc., hot Tang and cocoa make a good breakfast. Trail mix, dried fruit, jerky, and granola bars are OK for lunch. Soup (especially with noodles or rice), instant potatoes with butter, macaroni with cheese, etc. are good for dinner along with hot Jell-O and cocoa and tea.

Fats and sugars are quick energy sources. However, high-sugar foods such as candy are a bad idea for camping -- especially winter camping. Sugar gives a quick shot of sugar, but later the body goes through a blood-sugar low. These blood-sugar cycles can increase chances of hypothermia. Complex carbohydrates (starches) such a potatoes, rice, and pasta are better, longer term energy sources. Proteins (meats) are generally not considered energy sources even though they do provide energy over the long run.

Drink at least 2 quarts of fluids per day in addition to what you drink at meals. Eating ice or snow can reduce your body temperature and it is not pure. Snow and ice can be used for drinking water but only after boiling.

Before going to bed pour enough water for breakfast into a pot. It is easier to heat the pot than a plastic water can.

**CONSERVING BODY HEAT - THE PRIME OBJECTIVE!** - There are three ways to lose body heat. Keeping them in mind will help you be more aware of what you are or could be doing to keep your body warm.

**RADIATION** - the emission of body heat, especially from skin areas as exposed to the elements. A good set of gloves, hat, and scarf can help best in keeping bare skin exposure to a minimum. It is said that as much as 90% of body heat is radiated through the head! Keep it covered!

**CONDUCTION** - the absorption of cold by the body when sitting or laying on cold ground, or handling cold objects such as metal cooking utensils and metal canteens. This is why a decent sleeping pad is required for cold weather camping. The same goes for wearing gloves. A camp stool is a must on a winter camping trip. Try not to sit on the ground.

**CONVECTION** - The loss of body heat due to wind blowing across unprotected body parts. This situation can also be reduced by keeping bare skin covered with hats, scarves, and gloves. It is important to keep exposure to a minimum, ESPECIALLY in a windy situation. Convection heat loss can reduce body heat the fastest. Wet clothing will accelerate this process, making staying dry even more important.

**TENT PLACEMENT** - Whenever possible, place your tent in a location that will catch the sunrise in the morning, this will aid in melting off any ice, and evaporating any frost or dew that may have formed during the night. This will also warm your tent as you awaken in the morning.

**COLD AIR SINKS** - Try to place your campsite on slightly higher ground than the rest of your surroundings. Try to choose a protected site if it is snowing or the wind is blowing.

**WATER CONSUMPTION IN COLD WEATHER** - Dehydration can seriously impair the body's ability to produce heat. Drink fluids as often as possible during the day and keep a water bottle or canteen with you at night. When first feel thirsty, you are already a quart low! Other common symptoms of dehydration include headache and nausea. In Alaska emergency rooms many severe cases of "flu" are quickly cured with an IV of water.

**COOKING IN COLD WEATHER** - Cooking in cold weather will take about twice as long as normal. Always use a lid on any pots that you are cooking in. This will help to hold in the heat and decrease the overall heating time. Make sure you start heating cleaning water before you start cooking. The pots and utensils must still be cleaned. Try to keep your menu to hearty one-pot meals. Things like stews, chili, and hot beans stick to your ribs, lessen the cleaning time, and provide good sources of energy and good sources of fuel for your internal furnace. A good high calorie snack before bedtime will also help to keep you warm all night. Stay away from an overabundance of sugar. Sugar temporarily speeds up the metabolism. When the sugar is metabolized, the body's metabolism is suppressed, making one more susceptible to cold-weather injuries. High-fat and high-protein snacks give the body a more even source of high energy. So, try a hunk of cheese as a good high calorie bedtime snack instead of a candy bar.

**SLEEPING TIP #1** - Do not sleep with your mouth and nose in your sleeping bag. The moisture of your breath will condense in the bag, and cause it to become wet and ineffective as an insulator.

**SLEEPING TIP #2** - I got this from a Mount McKinley guide: When you hit the sack, take two leak proof 1-liter plastic bottles into the sleeping bag with you. One is filled with hot lemonade or other tasty drink, the other empty. The hot water will help you warm up the bag. In the middle of the night, when you feel the call of nature - don't get out of the sack, just fill the empty bottle and have a drink of hot lemonade. No more running half-naked through the snow, but don't get the bottles mixed up! When you emerge from your snow cave, you again have one empty and one full bottle. My Scouts think this practice is "gross", but it works for me when it's 40 below outside the snow cave. And no Scout has ever asked for a drink from my water bottle!

**BUDDY SYSTEM** - Buddies can help each other pack for a trek, look after one another in the woods, and watch for symptoms of frostbite, hypothermia, and exhaustion.

**CHECKLIST** - Make a checklist of everything you need before you start to pack. Then check each item off as you pack it. The checklist in your Scout Handbook is a good place to start. This way you will not forget anything.

**KEEPING WARM** - Keeping warm is the most important part of cold weather camping. Use the C-O-L-D method to assure staying warm.

**C** = Clean - Since insulation is only effective when heat is trapped by dead air spaces, keep your insulating layers clean and fluffy. Dirt, grime, and perspiration can mat down those air spaces and reduce the warmth of a garment.

**O** = Overheating - Avoid overheating by adjusting the layers of your clothing to meet the outside temperature and the exertions of your activities. Excessive sweating can dampen your garments and cause chilling later on.

**L** = Loose Layers - A steady flow of warm blood is essential to keep all parts of your body heated. Wear several loosely fitting layers of clothing and footgear that will allow maximum insulation without impeding your circulation.

**D** - Dry - Damp clothing and skin can cause your body to cool quickly, possibly leading to frostbite and hypothermia. Keep dry by avoiding cotton clothes that absorbs moisture. Always brush away snow that is on

your clothes before you enter a heated area. Keep the clothing around your neck loosened so that body heat and moisture can escape instead of soaking several layers of clothing.

**FOOTWEAR** As with other clothing, the layer system is also the answer for footwear. Start with a pair of silk, nylon, or thin wool socks next to your skin. Then layer on several pairs of heavier wool socks. When and if your feet become damp, change into another dry pair of socks at the first opportunity. Rubber overboots will protect the feet from water and will allow more comfortable shoes to be worn within.

**MITTENS AND GLOVES** - Mittens allow your fingers to be in direct contact with each other, they will keep your hands warmer than regular gloves that cover each finger. Select mittens that are filled with foam insulation, or pull on wool gloves and cover them with a nylon overmitt. Long cuffs will keep wind and snow from getting in.

**HEADGEAR** - The stocking hat is the warmest thing you can cover your head with in cold weather. Get one that is large enough to pull down over your ears. Also ski masks are great in the winter and can help in keeping your neck and face warm as well. Noses and ears can be very easily frostbitten, so a scarf can be an invaluable item to have.

**PARKA AND/OR OVERCOAT** - Your coat or parka is the most important piece of your winter clothing. It needs to be large enough to fit over extra clothing without cutting off blood flow, and allowing ventilation to keep moisture away from your body. A large permanently attached hood will prevent heat loss around your head and neck. The hood also keeps snow out of your neck when you're digging your snow cave.

**SLEEPWEAR** - Never sleep in the same clothes that you have worn all day. They are damp and moist and will cause you to chill. This could cause frostbite and hypothermia. It is advised that you bring a thick pair of sweats and/or thermal underwear to sleep in. Keep the thermals and sweats for sleeping in only. Do not wear them during the day, this will keep them the driest. Also be sure to have a couple of layers of wool or heavy thick cotton socks on as well. Always sleep with a stocking hat on your head.

**SLEEPING BAG** - Your sleeping bag needs to be a winter rated bag. Typically rated down to 15 degrees and stuffed with 5 pounds of Holofil, Fiberfil, or other polyester ticking. Down is lighter for the amount of insulation, but it's more expensive, needs special care, and loses its insulating value when wet. I don't recommend down for anything but major mountaineering expeditions. It is also a very good idea to have some kind of sleeping mat to use in the winter. The mat can be a $90.00 ThermaRest from a sporting goods shop (Scouts often get a 10% discount by showing scout ID card) or a piece of high density rubber foam at least one inch thick. In cold weather camping you never want to sleep on an air mattress or off the ground in a cot. The air under you will cool you off in no time and this would create a seriously life threatening situation. If you don't have a sleeping mat, bring a spare wool or natural fiber blanket to use as a pad under your sleeping bag. The sleeping mat is worth it's weight in gold.

## Common Sense Rules for Winter Camping

1. Anyone who camps on cold weather must be prepared with proper clothing, sleeping gear, food, water and other equipment for the worst weather expected. Whether you are prepared is determined by the Scoutmaster or another person designated by him. Anyone not prepared may not be allowed to attend the camp out.

2. No horse play that may get you wet -- rolling in the snow, playing on ice, etc.

3. We will use the buddy system for all activities. You must stay close to your buddy at all times. Also stay close to the group. There is no need to wander off by yourself.

4. Keep close tabs on your buddy and others in the group. Watch for signs of hypothermia, frostbite, dehydration, exhaustion, etc. Talk to each other. Encourage each other to have a drink of water, eat something, slow down, etc. If you suspect a problem notify one of the leaders.

5. If you feel tired, sleepy, or cold (even just a little bit) tell someone immediately.

6. Shelters for winter camping must be 2 or more man. NO INDIVIDUAL SHELTERS.

7. Avoid having to get up in the night (see sleeping gear). If you must get up in the night, wake your shelter mate and MAKE SURE HE SITS UP. Only go a VERY SHORT DISTANCE from your shelter and only after you have dressed properly.

8. If your shelter mate wakes you in the night, SIT UP AND DO NOT LIE BACK DOWN until he returns. STAY AWAKE. If he does not return soon, get dressed and wake one of the leaders.

9. Use common sense. Ask yourself, "Is this a smart thing to do?"

## CLOTHING

To keep yourself warm, remember the word C-O-L-D as discussed above.

When you sit, kneel, or lie down, always sit, kneel, or lie on something to separate your clothing from moisture and dirt.

Over-heating can be just as dangerous as getting cold. Perspiration wets your clothing, making you more susceptible to cold later.

Wear loose fitting clothing, to optimize insulation.

Layering is the best method of dressing for winter activities. By dressing in layers, you can take off or add clothes as needed, depending on the weather and your activity. If you get warm you can take some off and if you get cold add some more clothing.

The most important thing to remember about cold weather camping is to KEEP DRY. Moisture will reduce the insulating properties of almost everything. Keep yourself dry, both from the weather and perspiration.

Remember your rain gear is water proof and will not allow perspiration to exit. During rainy weather change your clothing several times a day.

When buying clothes for cold weather remember that wool retains most of its insulation properties when wet, while cotton loose most of its. Cotton is a bad choice for winter camping since it absorbs and holds moisture and loses its insulation quality.

Thrift stores (i.e. Salvation Army, etc.) usually have second-hand all-wool military uniforms. These are excellent for winter camping.

There are expensive man-made fibers such as polypropylene that retain their insulation properties much better than wool. Ask your salesperson to explain about these if they fit your price range.

Pull trouser legs over top of shoes to keep out snow. You may want to tie or tape them to make sure of the seal.

Waterproof your leather boots with a commercial treatment such as Mink Oil. Remember that this will NOT keep your boots and feet dry if immersed in water, but does provide good protection from snow and rain.

## UNDERWEAR

Start with thermal underwear. Polypropylene and wool are good choices. "Polypro" is good because it wicks moisture away from your body and wool because it is still warm when wet. Other fibers and blends are also O.K. and your choice may depend on what you can afford. If at all possible, avoid cotton because it holds moisture next to your body and is NOT warm when damp.

In very cold weather, 2 pair of long thermal pants and shirts may be appropriate. The second pair should fit loosely over the first.

## SHIRTS

Several shirts and sweaters worn over each other, each one larger than the one under it, is better than one heavy coat. Though it sounds like a lot, a sweatshirt, flannel shirt, another sweatshirt, a bulky sweater and a wind breaker, along with long underwear is not a bad combination. As the temperature and your activity changes you can take off or add shirts to stay comfortable and avoid sweating.

The outer shirt or jacket should be of a material that will stop wind and shed snow. Some slick synthetics work well. If you have them, wool is excellent for the other layers.

Take a heavy coat, but wear enough layers that you should not need it.

## PANTS

If you can, layer your pants also. Here again, wool is good. As with shirts the outer pair of pants should shed snow and block wind. Some types of ski pants do both well.

Coveralls and snowmobile suits are O.K., but it is more difficult to add and remove layers to regulate body temperature.

Blue jeans are not good pants for snow -- they're cotton. Snow sticks to them and they are soon wet and cold.

## FOOT GEAR

You need good warm boots for winter camping. Commercial snow packs (Sorrels) are good, but, expensive. "Moon" boots work very well, but keep them away from the fire -- they melt! If your boots use them, you should have an extra pair of felt liners.

Over-size rubber overboots with the extra space taken up with foam rubber will suffice for snow boots and Scouting literature shows how to make foam rubber mukluks.

Always put on fresh socks and your boots as soon as you get out of bed. That's the only way to get those cold boots warm before your feet freeze. Trying to warm them by the fire while you stand around in stocking feet is just plain stupid!

Wiggling your toes inside your boots will help keep feet warm.

What ever you use, boots should NOT FIT TIGHT.

## SOCKS

Wool and wool blends are best. Avoid cotton. Many people prefer two thin pairs to one thick pair. Take SEVERAL PAIR, more than you think you will need.

## HEAD GEAR

More heat is lost through the head, face and neck than any other part of the body so a stocking cap or other warm hat with ear flaps along with a neck scarf are a must. You may want a hat that covers your face. If your feet get cold put on a stocking cap.

## GLOVES OR MITTENS

Mittens are warmer than gloves but harder to work in. The best answer is to have both, if you can. Wear mittens instead of fingered gloves when you do not need independent use of your fingers. This will allow the fingers to help keep each other warm.

In either case they should be insulated and must be covered with a material that snow does not stick to.

Always put on your gloves as soon as you get out of bed. That's the only way to get those cold gloves warm before your hands become numb and useless. Keep them on all day!

Be careful around fire. Like boots, gloves and mittens are often damaged by the heat long before the scout feels the warmth of the fire.

## SUNGLASSES

Take and wear dark sunglasses if snow in the forecast. The glare of the sun off the snow could lead to snow blindness. The sunglasses will reduce the glare.

## SLEEPING GEAR

If you have a winter sleeping bag, great. If not, you can use two summer bags, one inside the other. Or, you can use several blankets in addition to your summer bag. Wool is best. The blankets should be folded to fit inside the bag (best) or around it.

Natural fiber sleeping bags (including down) do not maintain their insulation properties when damp. A 3 to 4 pound synthetic bag will take care of most of your needs.

A mummy style bag is warmer than a rectangular, as there is less space for your body to heat. Also, most mummy bags have a hood to help protect your head.

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

Scouting literature also shows how to make foam rubber sleeping systems.

Putting your head under the covers will increase the humidity in the bag that will reduce the insulation properties of the bag.

Air out your sleeping bag and tent, when weather permits. Perspiration and breath condense in the tent at night and the water will reduce insulating properties of your bag.

Hang your sleeping bag up or just lay it out, between trips, so the filling will not compress and lose its insulating properties.

Whatever you sleep in, you need to be insulated from the ground or snow. A good rule of thumb is that you want 2 to 3 times the insulation below you as you have over you. A closed cell foam pad (usually blue, about $6) is essential to get you away from the cold snow and ground. Open cell foam (the familiar old foam rubber) also makes good insulation, but absorbs moisture.

Use a ground cloth to keep ground moisture from your bag. Your body will warm up snow and frozen ground to a point were moisture can become a serious problem. A plastic sheet or tarp works best. Plastic trash bags will work and if they tear trying to get them up -- no big deal.

Space blankets make good wind shields only. The metallic properties take over the insulation properties in cold weather and become cold conductors. If used as a ground cloth, they will not reflect the body heat. Instead it will conduct the cold from the ground to your body.

Don't use an air mattress or cot during the winter. Cold air will be above and below you if you do.

Respect for nature and BSA's low impact camping policy discourages using tree boughs for bedding.

## SLEEPING ATTIRE

The ideal situation is to have a sleeping system that is warm enough that you can sleep naked. Since this is not the case for most of us it is necessary to bring sufficient clothing (pajamas, long underwear, sweats, etc.) to sleep warm. Don't forget socks. NEVER WEAR ANYTHING TO BED YOU HAVE WORN DURING THE DAY OR PLAN TO WEAR THE NEXT DAY. This is so you go to bed as dry as possible (no perspiration in your clothes) and start the next day dry also.

If your sleeping bag does not have a hood, you need a hat that is comfortable to sleep in. Wear a stocking cap to bed in order to reduce heat loss or wear a loose fitting hooded pull over type sweatshirt to sleep in. Here again, it should be one you have not used during the day.

Remove the clothes you are wearing before bedding down, they are damp with perspiration. Put on dry clothing or pajamas, if desired.

Before you get out of bed bring the clothes you plan to wear inside your bag and warm them up some before dressing.

## OTHER ITEMS

Exercise before bedding down to increase body heat. This will help to warm your bag quicker. Be careful not to start perspiring.

It is never fun to wake up in the night having to go to the bathroom, especially when it is 10 below. As much as possible take care of this before you go to bed. If you do have to urinate in the night, it is possible to do this without having to get out of your sleeping bag. If you are VERY CAREFUL you can use a plastic bottle with a tight lid, a zip lock plastic bag or even a commercial urinal. Remember to empty the bottle away from the camp in the morning.

It is a good idea to keep warm drinks available in a water-tight bottle or canteen. If you are sure the bottle is water-tight, fill it with hot water (not boiling) and keep it in your sleeping bag to keep it and you warm. If you wake up in the night, it may be because you started to chill do to lack of energy in your body or dehydration. A warm drink will taste mighty good.

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Before going to bed pour enough water for breakfast into a pot. It is easier to heat the pot than a plastic water can.

## COOKING EQUIPMENT

It takes longer to cook food in cold weather, so plan accordingly.

Cooking should involve little more than heating water, so equipment can be simple. Small pots and personal mess kits should be all that is needed. Foil dinners are excellent. Make them at home while your fingers are warm. Cook them on hot coals, eat, forget about washing dishes.

Many things are hard to prepare in freezing weather. Prepare them at home so all you need to do is cook. It's hart to bake biscuits when the water freezes faster than you can stir it into the mix.

## FIRES

Building a fire in 6 feet of snow can be a problem. Even if you dig down to bare soil, a fire can result in a big mud puddle. For best results, you need a metal fire pan such as an old metal garbage can lid. Elevate it on rocks or bricks to avoid melting the snow. Otherwise, your fire will slowly sink out of sight.

If you need a fire to keep you warm you are not dressed properly. If the heat can get to your body, so can the cold. The fire will melt snow into your clothing, only getting you wet -- not warm.

Don't use a fire to keep you warm -- it won't work! The best ways to stay warm are proper clothing, keeping dry, and keeping active. Winter campers who huddle around the fire invariably have cold feet and burned or melted clothing.

If you feel cold gather some wood or do some other type of work. Activity (i.e. working, sledding, skiing, snowshoeing) is the ONLY way to get warm and stay warm on winter campouts.

Gather your wood for the morning fire in the evening so that you will be able to start the fire when you get up. Gather twice as much fuel as you think you'll need for fires. Be careful in selecting the wood you gather. Live trees are difficult to identify when the leaves are gone for the winter. Never injure a live tree unless you are in danger.

Dead twigs on the lower portion of evergreen trees makes excellent tinder. Birch bark also works very well. You may want to carry tinder or fire-starters from home if you expect it to be hard to find in snow or wet conditions.

Carry extra matches because the more you need a fire to warm up the less likely you will be able to start one easily. Keep your matches in a metal match safe as plastic can freeze and break if dropped.

## STOVES

Campfires are often not practical for winter cooking. Chemical stoves are the answer. Remember, compressed gas stoves lose efficiency and may quit working at all in lower elevations and colder weather.

## SHELTER

If there is little or no snow, tents are the shelter of choice. The "arctic" and "four-season" type tents are nice for winter camping but are usually expensive and often hard to set up. Summer tents work OK, especially the dome type. Tents which require stakes can be more difficult to setup.

Build a wind break outside your tent by piling up snow or leaves to a height sufficient to protect you when laying down.

In very cold situations it is best to triple up in a tent to allow for more body heat in the tent.

If the snow is deep enough and time permits then snow caves or trenches are an excellent alternative to tents. They are warmer, if constructed right, and just more fun and rewarding. Care must be taken in constructing snow shelters to stay as dry as possible and avoid over exertion (perspiring).

Heaters inside your shelter can lead to carbon monoxide poisoning. No open flames (candles, matches, etc.) inside the tents!

## ODDS AND ENDS

Always review the equipment checklists in your Scout Handbook to ensure you and your patrol come on each campout fully prepared.

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

If at night you get cold, let the adult leadership know so action can be taken before injury from cold weather health problems occur. In other words it's better to be kidded about forgetting your sleeping bag than risking hypothermia.

Learn to recognize and treat cold weather health problems. These include frostbite, hypothermia, dehydration, chilblains, trench foot, snow blindness and carbon monoxide poisoning.

Carry extra plastic bags in cold weather. They can be used as personal wind shields and ponchos by slitting a hole in the top for your head to go through.

Flashlight batteries are effected by cold. You can revive a dead battery by warming it up near the fire. Experienced winter campers keep their flashlight and spare batteries inside their clothing to keep them warm.

## HYPOTHERMIA

Hypothermia comes from two Greek words meaning "low heat." It is the condition that develops when the body loses heat faster than it can generate it. Oddly enough, most cases of hypothermia occur when the temperature is not extremely cold, usually between 40 and 50 degrees F, and even as high as 70 F. Hypothermia can kill! Thus it is very important to understand it - how it occurs, the signs and symptoms, what to do if it occurs and, most important, how to prevent it.

- Causes of hypothermia include:
- Extreme cold
- Prolonged exposure to mild cold
- Immersion in cold water
- Wind chill
- Wetness
- Other factors that increase the risk of hypothermia include:
- Illness
- Fatigue
- Dehydration
- Age (old age or infancy)
- Alcohol
- Certain medications
- Inadequate or improper nutrition

The early symptoms of hypothermia:

- SHIVERING--This is usually the first sign of hypothermia but does not always occur. Elderly persons, those with abnormal body reaction, and individuals on certain medicines or using alcohol may not shiver.
- DIFFICULTY PERFORMING USUALLY SIMPLE TASKS--such as zipping clothing or tying a knot.

Later symptoms:

- Slurred speech
- Stumbling
- Confused thinking
- Shivering may stop

- Weakness, fatigue
- Drowsiness
- Weak pulse
- Shallow breathing
- Advanced symptoms:
- Muscles become rigid
- Heart beat irregular
- Loss of consciousness
- Death

Symptoms in the elderly may also include:

- Bloated face
- Pale or oddly pink skin
- Trembling or stiffness on one side of the body or in one arm or leg

It must be noted that a person suffering from hypothermia will often deny that they are. If they have entered the second stage (slurred speech, etc.) they appear and act drunk. In this stage or beyond, a person CANNOT HELP HIMSELF AND MUST HAVE HELP FROM ANOTHER PERSON.

If hypothermia occurs, treatment must begin as soon as the first signs are noticed. Complete recovery is usual in most cases, if treatment begins soon enough. Severe hypothermia can cause life-threatening damage to the heart, liver, kidneys and other organs.

Treatment for hypothermia includes:

- **GET VICTIM TO A WARM PLACE** - a shelter if possible. If you must stay outside, WRAP THE VICTIM (ESPECIALLY THE HEAD), protect from wind and keep off the ground, if possible. In an outdoor setting the best shelter may be a SLEEPING BAG. REMOVE THE VICTIM'S CLOTHES AND PUT HIM IN A BAG WITH ANOTHER PERSON (ALSO STRIPPED) AND WITH 2 OTHERS IF POSSIBLE. Skin to skin contact is the most effective treatment. Be careful the persons in the bag warming the victim don't also become victims because of the contact with the first victim!
- HANDLE VICTIM AS GENTLY AND AS LITTLE AS POSSIBLE
- DO NOT RUB OR MASSAGE THE VICTIM'S SKIN
- If possible give victim warm, high energy liquids (i.e. cocoa or soup)
- Give artificial respiration if necessary
- Give CPR if necessary and you are properly trained
- GET VICTIM TO PROFESSIONAL HELP AS SOON AS POSSIBLE

Prevention of hypothermia includes recognizing the causes and the prevention or preparing for them:

- Reschedule activities to avoid exposure to extreme cold and learn to dress properly and provide adequate shelter for outside activities in mild cold and wind chill. Controlled activity can also prevent over exertion, fatigue and sweating.
- Avoid areas where there may be thin ice with water below. Flowing water (streams and rivers) is the most dangerous because ice thickness varies widely. Lakes and ponds can have river channels flowing through them where thin spots can exist. Many lakes also have springs in the lakebed which cause thin spots.
- High energy foods provide the fuel your body needs to produce heat. Avoid high-sugar foods (i.e. candy). Sugar causes wide fluctuations in blood sugar levels which can increase the possibility

hypothermia. Foods high in complex carbohydrates and starch such as breads, potatoes, pasta, etc. give longer-lasting, steady energy. Foods high in fats are also good sources of cold-weather energy.

- Warm drinks help maintain body temperature rather than deplete it as cold drinks do. Drink plenty of liquids, even if you do not feel thirsty. When you feel thirsty, you are already at least a quart low! Drink at least 2 quarts a day in addition to what you drink with your meals. Most headaches are caused by dehydration. Dehydration can also cause flu-like symptoms such as nausea. Do not eat snow for moisture.
- Every person should watch, not only themselves but, every other person around them for signs of hypothermia and take action even if the person with symptoms says he is OK.

## FROSTBITE

Frostbite is caused by exposure of inadequately protected flesh to subfreezing temperatures.

Symptoms:

- Loss of feeling
- Dead white appearance
- White or yellowish waxy appearance

Treatment:

- Restore normal body temperature as quickly as possible -- immersion in warm (less then 110 degrees F) is best.
- Keep victim and especially effected area covered.
- GET PROFESSIONAL HELP AS SOON AS POSSIBLE.
- DO NOT rub the affected area!
- DO NOT rub with snow!
- DO NOT allow the area to refreeze! If, refreezing is likely, it may be best to leave the affected area frozen until the victim is returned to civilization.

Prevention:

- Each person must be aware of his own body and take action if any part becomes cold or numb. Fingers, toes, ears, nose and cheeks are especially susceptible to frostbite.
- All members of the party should watch other members for signs of frostbite.

**HAVE FUN!**

Every year, tens of thousands of boys will go winter camping. Although the threat of danger is always present in a winter camp, planning and knowledge can overcome this. It is very important that the scouts come prepared. If a scout feels that at this time winter camping is not for him, then he should not go. There is always next year and the year after and so on. If a scout comes to camp and I do not feel that he is prepared, I will have to ask him to stay behind. Make sure you are ready, and most of all, SAFE.