

BEAVER PATROL FIRST AID
HYPOTHERMIA & FROST BITE

HYPOTHERMIA

HYPOTH means " a lack of. " THERMIA means " heat.

Hypothermia occurs when a person's body core temperature drops so low that it is no longer possible to keep warm. In effect, the Body's furnace goes out.

Conditions need not be extreme for Hypothermia to develop. Any combination of cool weather, damp clothing, and wind can bring it on. In fact, most cases occur when air temperature is well above freezing. In wet cool weather, do all you can do to keep yourself and your clothing dry, and prevent the loss of heat through your head by pulling on a warm cap.

HOW TO SPOT HYPOTHERMIA

In order to function well, the brain must stay warm. As the Body begins to cool, The Victim will shiver in an attempt to create heat. Other symptoms may include irritability and, as the temperature of the brain begins to drop, disorientation, sleepiness, and incoherence. The ability to make clear judgements will be impaired, perhaps causing a victim to push on long after conditions dictate turning back. As the person becomes even colder, shivering will stop, followed by a slip into unconsciousness, and perhaps death.

HYPOTHERMIA CHALLENGE

If you suspect that another member of your group is acting strangely, you can challenge your companion to walk a 30 - foot line scratched on the ground. It's a test similar to that used by police officers to check the sobriety of suspected drunken drivers. If a Hiker can walk heel - to - toe the length of the line without difficulty, Hypothermia is still not a problem. However, if there is unsteadiness, loss of balance, or other signs of disorientation, see that your companion gets warm and dry even if the person protests. Everyone in the Patrol, must pass the Challenge before you travel on.

HOW TO TREAT HYPOTHERMIA

Rewarming and preventing further heat loss is the answer. In mild cases you can move the victim into the shelter of a building or tent, remove wet clothing, and zip the person into a sleeping bag until body temperature warms to normal. Make sure the head is covered with a warm hat or the sleeping bag hood. Give hot drinks and soup if possible.

In more severe cases you'll have to actively warm the victim's body. Get the person into shelter and into a sleeping bag, Ideally a double - size bag made by zipping together two single bags. Crawl into the bag with your companion, and strip the clothing from both of you. The effort of removing damp clothes will help you generate body heat, and the bag will protect you both from the cold outside. If the bag is large enough, have a third person crawl inside and strip down, too.

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5. Use the BUDDY SYSTEM to ensure everyone's well-being, especially if Veteran winter campers are paired with those without much cold weather experience. Buddies can help each other pack for a trek, look after one another in the woods, and watch for symptoms of frost bite, Hypothermia, and exhaustion.

What keeps you warm?

When you really study what keeps you warm, it becomes clear that it is you! Your body produces all the heat you need. Your clothing is designed to hold in whatever heat you need to feel comfortable under a variety of conditions and activities. You will notice all our clothing is loose. That is because tight clothing constricts the flow of blood so the body heat cannot move around — just like when a faucet is turned off. That is why tight boots mean cold feet and a tight belt means cold legs.

COLD

C.O.L.D. That is an easily remembered key to keeping warm.

C. Keep yourself and your clothes *clean*. Dirt and body oils which build up on clothing destroy its insulating properties.

O. Avoid *overheating*. Clothing is designed to be taken off or added to in layers to maintain an even body heat.

L. Wear clothes *loose* and in *layers*

D. Keep *dry*. Wet clothing removes body heat 240 times faster than it will dissipate through dry clothing. Wet is trouble.

Ventilation

To regulate the amount of heat yet not get overheated and wet with perspiration, adjustments can be made to loosen up the waist, the cuff, and the neck opening, allowing more heat to escape.

Wet, windy, cold

This is the combination that spells danger to the winter camper. We avoid it by keeping dry, getting out of the wind when possible, and wearing the correct clothes.

Good clothing and equipment

Buy the best clothing and equipment you can afford, they are essential for your enjoyment of the outdoors in winter.

Fire

Nowhere in the winter clothing or sleeping systems will you see any provision for fire to provide body heat. Fire in the winter is a "false god" in regard to warmth. The body itself is like a big furnace. You stoke your furnace with good food; it burns the food and provides the heat which your heart circulates through your body. Layers of insulation determine how much of that heat is retained and how warm you will feel. Fire is useful for turning snow into water, for its cheerful glow, and for heating water in an emergency. Extreme care must be taken around an open fire not to get too close with synthetic fiber garments which can shrivel or melt just from reflected heat.

Winter

Short days, deep snow, and cold, clear, dry, air characterize deep winter. The beauty of snow-covered terrain and the hushed silence of frozen lakes provide unique setting for those who answer the call of winter camping. Learning to live in and enjoy the snow country is a challenge few dare to take. But once you have answered this call and have slept beneath the stars and the northern lights arrayed against a black velvet sky, or listened to the distant howl of a hunting wolf, snow camping will become an unforgettable experience which calls you back again and again.

Types of bags

Inner bags and outer bags may be made of synthetic fiber which can be rolled up compactly for travel. These are particularly tailored for long-distance trips in the winter. The cold weather foam outer bag is warm and while somewhat bulky, can be laced down and compacted into a serviceable size for travel.

Temperature

Temperature indicates how much of the system you will need. In warming situations, only part of the system may be needed. The winter camper adds or takes away individual items to maintain personal comfort. In extreme cold, with the entire system in use, clothing, plus a knit cap, also add warmth inside the bags.

Your Clothing Is Your Key to Winter Comfort

Headgear. This is personal preference but it is always a good idea to have at least one stocking or knit cap for use under a parka hood or in the sleeping bag. Soft, insulated caps with ear flaps are good, but should be loose-fitting.

Eye protection. Goggles are best but sunglasses and homemade snow shields will reduce glare from sun off the snow, a situation which can cause painful problems, even "snow blindness."

Scarf. Wool or synthetic fiber makes an excellent cold weather protector, but make sure it is plenty long.

Parka. The anorak or pullover should be windproof, should reach almost to the knees, and be large enough to fit over all the other garments. It should have a hood.

Hand covering. This is a personal preference. Use any loose-fitting combination of the following: wool gloves, wristlets, wool mittens, foam mittens, dacron mittens, leather oven mitts, wind and waterproof expedition mitts.

Jacket. A lightweight jacket used in combination with other outer garments makes a better "layering" system than one thick, heavy jacket. A hood for extreme cold is a welcome addition.

Vest. This insulated garment keeps the vital organs—heart and lungs—warm. Best style has a flap in back to protect the kidneys. Detachable sleeves convert a vest to an insulated jacket.

Sweater. Use a wool or wool synthetic sweater to layer.

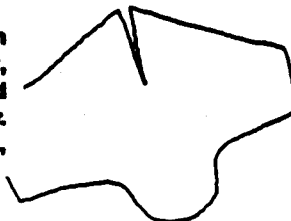
Shirts. Wear full-cut, loose wool, or wool-and-synthetic fiber shirts.

Long underwear. May be wool, wool and cotton, wool and synthetic fiber, and synthetic fiber. Keep a spare set for emergencies and to sleep in.

Pants. Wear full-cut, preferably with suspenders. In extreme cold, lightweight, windproof pants may be worn over everything.

Insulated chaps. Equipped with snaps down the inseam, they may be put on or taken off without removing the boots. Taken off, the legs may be zippered together to form a half-bag inside the sleeping bag.

Boot liner. A specialty cut piece of 1-inch foam can be wrapped around the foot, held in place with a nylon "sock" and used with the mukluk in very cold weather. Also, quilted, synthetic liners are used and, sometimes, felt liners.



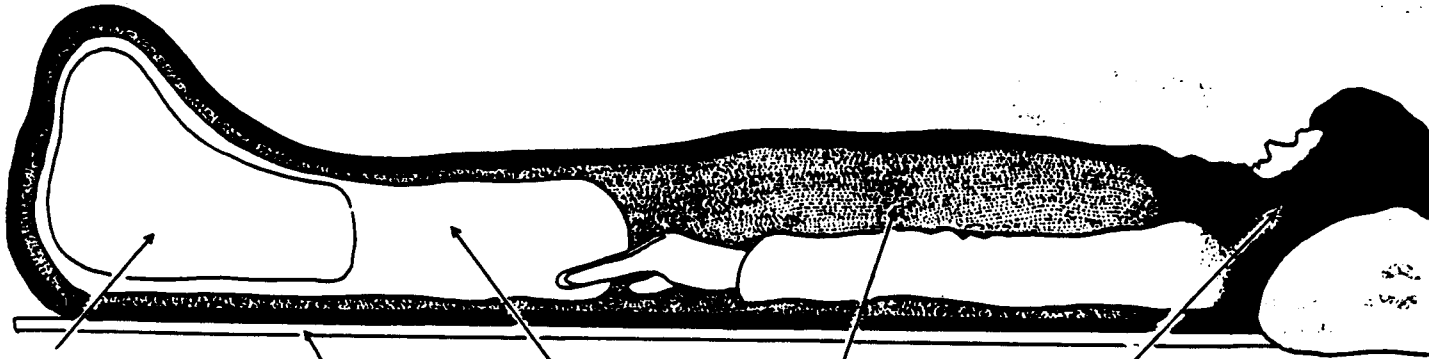
Boots. Proper footgear is essential. A boot should fit somewhat loose for warmth, but the adage "cool is comfortable" is true; the feet should not sweat profusely. Use a combination of a light boot for travel, a thickly insulated boot for camp.

Socks. Wool, or wool and synthetic are good. Sometimes synthetic fiber stretch socks are worn next to the skin for added warmth.

Your Sleeping System Is Designed to Keep You Warm

Essentially, you are sleeping in four layers of insulation with a fifth layer underneath you to insulate you from the frozen ground. It is important to first make sure the feet are warm, so the sleeves in your parka are built to unsnap so they can be pulled over your feet like boot liners when you crawl in for the night. The insulated chaps are unsnapped, con-

verted from individual leg coverings to a single bag which further protects the feet and lower extremities in the sleeping bag. The third layer is the "three-quarter bag" which comes up to the armpits and has a drawstring which allows it to be tightened down slightly in order to capture heat. The outside layer is a hooded sleeping bag which covers the entire system from feet to head and which has a drawstring allowing the opening to be pulled snug around the face to prevent loss of body heat.



Sleeve unsnaps and becomes a foot bag.

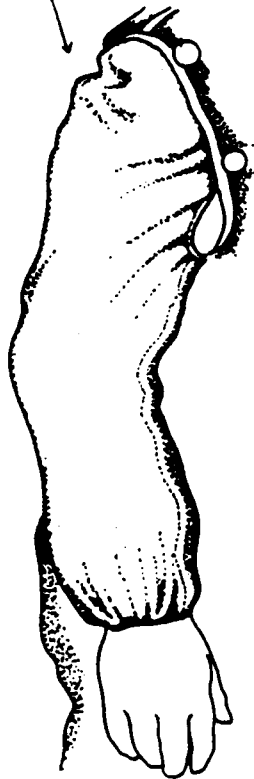
Foam pad stops cold from below.

Three-quarter bag, or bag liner.

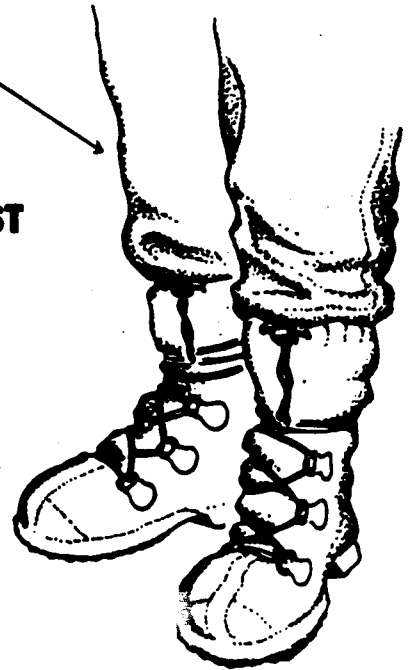
Hooded outer bag covers everything.

Sleeping pads. These are essential for insulating the body from the cold ground. They come in three types: 1) closed cell foam; 2) open cell foam, used with a closed cell pad; 3) insulated air mattress.

Insulated chaps snap together to form a half-bag.

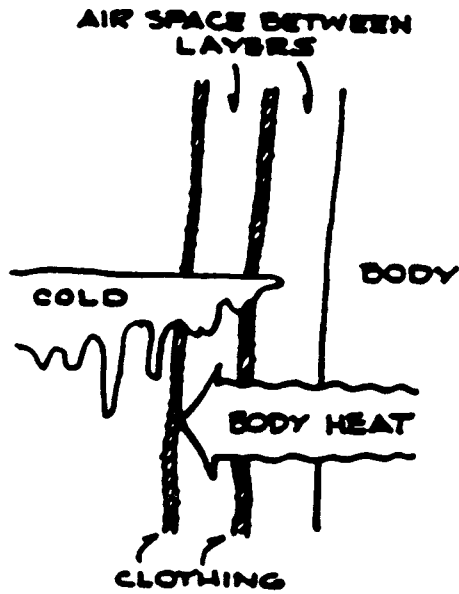


YOUR SLEEPING SYSTEM WORKS BEST WHEN KEPT CLEAN AND DRY.



Six hints for keeping warm

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y



Use air space between layers of clothing and between clothing and your body to keep body heat in and coldness out.



Keep your head warm, particularly your temples, to force heat to other parts of your body. Uncover before you start sweating.

Keep your torso warm with a long jacket that covers the thighs and sends extra body heat to other parts of your body.

