

Sleeping Warm While Winter Camping

Staying warm at night while you are winter camping is crucial to a successful trip. This review covers the components of a winter camping sleeping system, preparation steps before sleeping, using external heat sources, dressing for sleep, personal variations, adjustments during the night and the following morning.

Components Of A Sleeping System

1. Sleeping Pads

A good sleeping pad may be the most crucial element to staying warm at night. What is under you is more important than what is on top of you. Unless you have the right amount of insulation below you the ground will absorb most of the radiant heat vented by your sleeping bag and you'll feel cold most of the night. You can prevent this by using an insulated sleeping pad. This compensates for the fact that you are lying on your sleeping bag, compressing the fill, and eliminating most of its loft and heat retention capabilities. Some combination of a closed-cell pad and an inflatable Therm-a-Rest type pad works well. The closed cell pad has an R-value of about 2.6 and the average Therm-a-Rest has an R-value of about 3 for a total of 5.6.

2. Sleeping Bag

If you want to be comfortable winter camping you need more than a summer or three season bag. Your sleeping bag choice requires a decision between down and synthetic insulation. Down insulation weighs less, lasts longer, compresses smaller, and costs more. Synthetic dries quicker, provides better insulation when wet, and costs less. In either event, use a sleeping bag that's rated 5 to 10 degrees colder than any temperature you expect to encounter. The excess insulation may weigh more, but you will appreciate having the extra insurance. Different brands and different designs run warm or cold, so talk to friends and do some research.

If you don't have a really warm winter bag, consider an insulated over-bag that you can use with your three-season one to boost the temperature rating or bring two sleeping bags.

Make sure your sleeping bag is the right size for you. If there's too much space your body will lose heat trying to warm that empty space. However, you might want extra length to your sleeping bag to sleep with boots, water bottles, cameras, clothes, etc. to keep them from freezing.

3. Sleeping bag liner

A sleeping bag liner serves as an insulating layer inside a sleeping bag, it provides a layer of protection between your body and any water bottles or clothes you include in your sleeping bag at night and they keep your sleeping bag clean from dirt and body oils. A sleeping bag liner might consist of a fleece blanket, silk mummy bag or a vapor barrier bag. Blankets tend to get tangled so look for something shaped like your sleeping bag.

A vapor barrier is made of a waterproof, non-breathable coated material and the concept is to keep a sleeping bag dry by preventing perspiration from getting trapped in the insulation of the sleeping bag. In ideal dry conditions the heat generated by the body drives the moisture through the insulation. However, in extreme cold this moisture might become trapped in the insulation and freeze. By using a vapor barrier the moisture is contained and can be removed by turning the vapor barrier inside out and shaking off the flakes as the moisture freezes. Used properly, a vapor barrier liner can allow you to sleep comfortably in temperatures 10 or 15 degrees lower than you could without a liner; used improperly, a vapor barrier liner leaves you sleeping covered in your own sweat.

Preparation Before Sleep

1. Preparing your site

Select a protected campsite out of the wind and off the valley floor and other low areas where cold air settles. Look for natural wind blocks like

large boulders, rock outcroppings, or dense stands of trees protect against wind. Breezes blow up canyons or mountains during the day, and down at night. If you camp near water, cold air travels down water corridors. Don't set your tent or build a fire under trees that have snow on their branches.

Use a winter-tent. You want nylon tent walls with minimal mesh, closeable vents, and a full coverage fly. It's amazing how much warmth a good winter tent can hold. If you are sleeping in a tent open the ventilation system to permit the moisture to vent out. Most tents are going to have condensation somewhere – just try to reduce the volume to prevent your sleeping bag and clothing from getting wet.

If you are sleeping in a lean-to you should consider hanging a tarp across the opening to help eliminate breezes. Similarly, if you are sleeping in the open a snow wall or tarp can serve as a wind block.

2. Preparing your sleeping system

As soon as you set up your site you should set up your sleeping system. If you are using a self-inflated air mattress let it self-inflate and then add puffs of air right before bedtime. You don't have to worry about moisture buildup even in winter; freezing of moisture in the pad isn't an issue unless you are doing this daily for months at a time.

Fluff your sleeping bag up. This will allow more time for the sleeping bag to regain its loft. Also, you should give your sleeping bag a good fluff just before getting in it. This also helps the bag retain loft throughout the night.

Put tomorrow's clothes under your sleeping bag. If you put tomorrow's clothes between your sleeping pad and your sleeping bag, your clothes will be warm when you go to put them on the next day. The additional layer between you and the ground will also help you keep warm.

3. Preparing your body

During the winter it's important to be adequately hydrated. Your body demands more water in the winter as your lungs lose moisture humidifying

and warming the dry, cold winter air. The average person needs about 1.5 to 2.5 liters per day, whereas a winter exertions may require 2.5 to 5 liters per day. In order to burn fuel efficiently you must keep your body hydrated.

Avoid caffeine - it's a diuretic, which causes water loss increasing dehydration. Eat a hot, hearty meal for dinner. Your body will use this fuel to keep you warm throughout the night. If the weather is really bad and you don't feel like cooking a big meal, then cook the meal that is easiest and fastest to make. When cold weather camping, you carry a freeze-dried meal since they are a quick, easy hot meal.

Eating a high calorie, high fat content snack before bedtime will give your body more fuel to help keep you warm. Proteins, such as cheese, nuts, or grains, are better than simple sugars. Proteins release their energy more slowly than sugars, keeping you warmer through the night.

Do calisthenics to get your circulation moving and your metabolism going. Take a brief hike around camp, or do jumping jacks or pushups to increase your metabolism and get warm before getting into the sleeping bag.

Go to the bathroom before bed and save yourself a middle of the night trip in the cold.

External Heat Sources

Fill a leak-proof water bottle with hot water. Wrap it in a spare fleece layer or sock, place it in your sleeping bag and sleep with it. You pre-warm your sleeping bag with the hot water bottle before you slide into it to avoid those "cold-nylon shivers".

Take some heated rocks from around the campfire and place them inside your cooking pot for a safe heat source inside your tent.

Chemical heating packs work great for hands and feet. Layer them between socks or gloves – never put them directly next to your skin. Chemical heat packs usually last several hours.

Dressing For Sleep

Change into clean, dry, loose fitting clothes prior to climbing into your sleeping bag. Perspiration in the clothes you wore during the day will chill you at night. Wear wool, silk or polypropylene long underwear tops and bottoms. A hat, balaclava or hood will help keep your head warm. Accessories such as socks, light gloves/mittens, and a scarf around your neck will also help retain body heat.

Make sure your feet are as dry as possible before going to bed. Wear dry sleeping socks or booties or you can “dry” wash your feet with a good foot powder that contains aluminum chlorohydrate, to dry the skin and reduce perspiration.

If you wear too much to bed you can risk compressing your sleeping bag insulation and getting overheated. You want to avoid sweating during the night. If you feel constricted in your bag, you have got too much on.

Personal Variations

Some people have ‘must be warm’ spots on their bodies. For some people it is their head or feet. Bring an insulating layer (down jacket or fleece) into your sleeping bag to place around your cold sensitive areas. If your feet are cold, wrapping them in a fleece jacket may do the trick for you.

Adjustments During The Night

Don’t bring wet clothes or boots into your sleeping bag as moisture will travel from wet clothes to sleeping bag. If you must bring leather boots into your sleeping area to prevent them from freezing consider putting them in a stuff sack and placed into the foot of the sleeping bag. You can also put the boots in a sack and place them between your sleeping bag and the pad underneath.

Sleep with your face outside of your sleeping bag. Your breath contains a lot of moisture that can cause dampness to collect in the bag as you sleep.

Avoid overheating at night. Being too warm produces perspiration, so vent your bag if needed or take off your hat.

If you are cold add more insulation by using your jacket as an additional layer and seal the area around your neck by cinching your mummy bag or use extra clothing to seal off the opening around your neck. I have found putting a down jacket loosely over me to be more comfortable than wearing the jacket and it prevents sweaty armpits.

Pee if you feel the urge. Holding it in requires your body to waste energy trying to heat up the water in your bladder.

Keep a snack available for the middle of the night, so if you do wake up cold you can replenish lost calories and warm back up again. Semi-sweet chocolate bars or trail mix work fine.

If you have tried all these measures and are still very cold, don't be afraid to wake someone!

The Next Morning

When you awake prolong your time in the sleeping bag as long as possible. Try a quick pre-breakfast snack, get dressed and pack up to the extent possible while staying warm in your sleeping bag.

Roll the moisture out of your bag each morning when you get up (roll from foot to head), then leave it open until it cools to air temperature. If weather permits set it out to dry.

Pack your inflatable sleeping pad by folding the mattress several times and sitting on it to get most of the air out, then start at the end and roll toward the valve, using your knee as pressure to keep it rolling tightly. Or alternatively fold mattress in half lengthwise, then fold again. Now sit on mattress and open the valve. When all the air is out, close the valve and roll up your mattress.

Packing nylon tents and stuff sacks can really cause your hands to get cold. Wear your gloves and mittens as much as possible to prevent frostbit.