

# C-C-C-COLD WEATHER CAMPING TIPS

Signal Hill District of the Northwest Suburban Council

Edited by Debora A. Heine



## Cold Weather Camping

Cold weather camping. Why do we do it?? There are a number of reasons.

- ❑ There aren't any bugs.
- ❑ It's quieter.
- ❑ The KYBO's don't smell. Really!!
- ❑ And, there aren't as many campers because not everyone is willing to put in a bit of extra effort to enjoy the outdoors in the cold months.

But, winter isn't just about being cold. It can be the most beautiful of seasons, but if you're not prepared, it can also be the worst of seasons. It will take planning, experience and the right equipment to camp in the winter. If you venture to the out of doors unprepared, you may very well subject yourself to dehydration, hypothermia, and/or frostbite. With proper planning, though, cold weather camping can be the most enjoyable of outings.



## What is "COLD WEATHER?"

Boy Scouts of America considers cold weather camping to be "camping in weather where the average daily temperature is below 50 degrees Fahrenheit (50° F) and conditions are cold, wet or windy."

There are three types of cold – wet, dry and arctic. Happily, most of us will only be exposed to the first two of them:

- **Wet cold: 50° F to 14° F** This is the most dangerous, because of the swing in temperatures, which go from melting during the day to freezing at night. It's hard to dress properly, but dressing for the weather is the most important issue you have to deal with. Staying dry is the key, but damp conditions from melting snow or rain can make that pretty difficult.
- **Dry cold: 14° F to -20° F** The ground is frozen and the blanket of snow is dry and crystallized. There can be strong winds to deal with, causing the most concern when you're trying to keep warm. Extra layers of clothing and wind-proof outer garments are a must.
- **Arctic cold: below -20° F** These conditions require the most insulation and wind-proofing, and is recommended only for the most experienced campers.



## **Heat Loss**

Think of the human body as a furnace, producing heat through chemical reactions and physical activity. That heat is lost through conduction, convection, evaporation, radiation, and respiration. As physical activity increases, your body increases heat production. But, as activity decreases, your body doesn't generate the same level of heat, and we must now keep warm by adding insulation to the body.



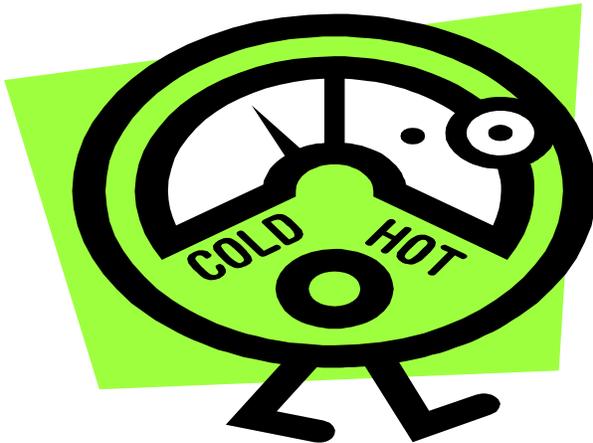
## **Insulation**

Dead air is defined as any enclosed unit of air that is small enough that natural convection currents would not arise in it. You can think of it as non-circulating air. The dead air next to the skin is heated up by the body and provides a layer of warmth around the body. So, it's not the clothing that's keeping you warm, but rather the warm air in the space between your body and your clothing.



## The Layering Principle

The key to staying warm in the winter is having proper layers of clothing and knowing how to use them effectively. The key to creating this dead air space is to have multiple layers of clothing, one on top of the other, with each layer creating its own dead air space. This allows you to add or remove layers of clothing to increase or decrease your accumulated dead air space as the temperature changes and/or as your activity levels change. Your body is the heat source, the clothing layers only serve to trap the heat and slow down your heat loss. If you have too much clothing on, you will overheat and start to sweat. It's important that you find the proper balance between the number and types of layers and your activity level. Remember, to stay comfortable in cold weather, you must be able to add or remove layers of clothing.



## To be "WARM", you need to think "COLD"

As you may have guessed, the most important part of cold weather camping is to **KEEP YOURSELF WARM**. Not cold, and not hot, but **WARM**.

Believe it or not, we use the **C-O-L-D** method to remind ourselves of what we need to do to stay warm. Here's how it goes.

**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 sweat can mat down those air spaces and reduce the warmth of a garment.

**O = Overheating** - Avoid overheating your body 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 footwear that will allow maximum insulation without compromising your circulation.

**D - Dry** - Damp skin and clothes will make your body cool quickly, which can lead to frostbite and hypothermia. Keep DRY by avoiding clothes that absorb moisture, such as cotton. Always remove excess snow from your clothes before going indoors, to keep it from melting and soaking through. Keep the clothing around your neck loosened so that body heat and moisture can escape, instead of soaking several layers of clothing.



## **Recommended Clothing and Clothing Materials**

### **The Body And How To Protect It:**

1. **Head** – you **MUST** bring along multiple hats on a cold weather camping trip. Not because you have more than one head, but because one of the hats will become wet, and you'll need something dry at all times with which to cover your head. Yep, even in your sleep!
2. **Hands** – you **MUST** have more than one pair of mittens or gloves. I suggest mittens, which are warmer than gloves because your fingers are sharing the same pocket of dead air, which will aid in keeping all the fingers warmer (think of it as the buddy system). A pair of gloves would be used when you want independent use of your fingers. On a campout, I use mittens about 90% of the time.
3. **Feet – socks**. Multiple layers of socks will keep your feet the warmest. You can start with a thin polypropylene sock next to the skin to wick moisture away. Then, add one or two pair of wool or wool/nylon blend socks. Make sure the outer socks are big enough that they can fit comfortably over the inner layers. If they're too tight, they'll restrict blood circulation in your feet, and frostbite will occur. (we'll learn about frostbite in the pages to follow)
4. **Feet – boots**. Cold feet may be the worst thing to have on a campout. Finding just the right boot for cold weather camping can be difficult,

because your needs change depending on the activity you're doing. Snow boots, or boots with rubber soles and leather or nylon uppers are best. Avoid boots with rubberized uppers because they don't breath, so moisture will be retained, and we know how bad moisture is in the cold, right?? Boots with removable liners would be the preferred choice, but aren't necessary if you purchase the boots large enough to accommodate multiple layers of wool or wool/nylon blended socks. Removable foam or woolen insoles add an extra layer of warmth between the ground and your foot. When all is said and done, and you've got the layers in place, you should be able to wiggle your toes very easily. Tight boots mean cold feet. NEVER wear gym shoes, dress shoes, or cowboy boots on a cold weather trip. They offer no insulation whatsoever.

5. **Outer Layer** – you've got to have an outer layer that is windproof and at the least, water- resistant. Your coat is the most important piece of your winter clothing. A coat with an attached hood will prevent heat loss around your head and neck, and is highly advisable. If it's snowing or raining, consider wearing your rain gear as your outer layer, which will prevent your heavy winter coat from becoming saturated.



### Suggested Materials For Winter Clothing And Insulation:

1. **Wool** gets its insulating quality from the elastic, three-dimension wavy crimp in the fiber that traps air between fibers. Depending on the texture and thickness of the fabric, as much as 60-80% of wool cloth can be air. Wool can absorb a good amount of moisture without giving a damp feeling because the water seems to disappear into the fiber spaces. So, even with water in the fabric, wool still retains dead air space and will still insulate you.
2. **Pile or fleece fabrics** are synthetic materials usually made out of plastic. Yes, you read it correctly -- plastic. It has a similar insulative capacity as wool, it holds less water than wool, but dries more quickly.
3. **Polypropylene fabrics** are synthetic, plastic fibers that offer dead air space and cannot absorb moisture. The fiber is hydrophobic (isn't that the fear of water??) so it moves the water vapor away from your body. Under Armour is an example of this polypropylene fabric.
4. **Down** consists of feathers, which are a very efficient insulator. They provide excellent dead air space and weigh next to nothing. You'll find down filled sleeping bags, vests and coats. Down will absorb water, however, which is a huge problem, as we've already learned. Once the feathers get wet they clump together, and there goes your dead air space. If you're going to use clothing or bags filled with down, you have to be sure not to allow them to become wet.

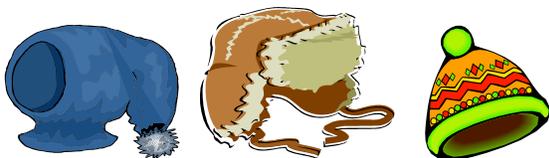


The only thing worse than being cold for a whole weekend is being cold ***AND*** wet for an entire weekend. For cool weather, you don't have to go out and buy special clothes – what you need is probably hanging in your closet or crammed somewhere in the back of a drawer. We're talking about **LAYERS** of clothing. Three layers of clothes that can be put on or taken off as needed are much better than just one heavy winter coat. Layering your clothing not only provides more flexibility for changeable weather, but the air between each layer serves as additional insulation.

If an outer layer gets wet, it can be stripped off. In cold weather, bring a combination of sweaters, heavy shirts, sweatshirts/sweat suits, and a good heavy coat or parka. Cut back on the use of cotton during cold or wet weather, because it absorbs moisture. Wool or synthetics are better. But, you can certainly live with nothing more than cotton, **IF** you take the precautions to keep it dry, or change often if it does become damp or wet.



Which brings us to another topic -- how to pack your gear for a cold weather campout. We've learned that moisture is what makes us cold, so we need to protect our clothes - even clothes sitting in our tent - from becoming damp. Much like we keep foods in plastic to keep it fresh, we need to protect our dry clothes by enclosing them in a plastic or dry float bag. If you don't want to invest in a dry float bag, Ziploc bags are perfectly good, and I use them all the time. They now make large bags (1 gallon, 2 gallon, 2.5 gallon and larger), and since they're so durable, you can reuse them from one campout to another. So, in your duffel bag you should have multiple sealed bags of clothes – underwear, shirts, pants, hats & gloves, socks, etc. This is an added assurance of keeping moisture out of your clothing until you're ready to wear it.



In cold weather you need a couple of hats that cover your head and ears. You should use one hat for sleeping in, and the other to wear during the day.



You also need to have a good pair of water-resistant mittens or gloves with long wrists that will tuck under the cuffs of your coat. You can't keep your hands in your pockets when camping. Mittens keep your fingers warmer than gloves.



Camping in the cold weather, or any weather for that matter, is not about having the most expensive equipment, bringing color coordinated clothes or having the fanciest gear. No one gives out prizes for nicest stuff on a campout. We're there to have fun. It's certainly not about color coordinating your outfit so you look good. As long as we're safe, we can look any way we want to. So, go ahead and mix pinks, browns, greens & yellows with stripes, plaids, polka dots and solids – as long as you're warm, it really doesn't matter what you look like.



## Clothing Techniques

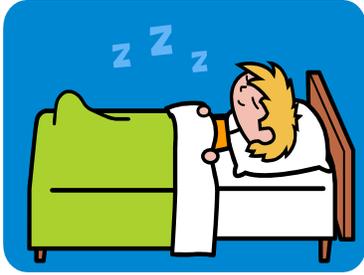
1. When you first get up in the morning, your activity level will be low, and so will the temperature. You will need to have many, if not all, of your layers on at this point until breakfast is over and you've started to become active.
2. When you get ready to be active, you will need to take off layers since your body's furnace will begin generating heat. Remove just enough clothing until you begin to feel cool, but not cold. If you don't peel off a layer or two, and you begin physical activity, you'll start overheating, sweating, losing heat and you will have to stop in 10 minutes to take layers off. Opening or closing zippers, rolling sleeves up or down, taking a hat off or putting one on will all help with temperature regulation.
3. If you stop for more than a few minutes, you will need to put on another layer to keep from getting chilled, so keep your layers close by.
4. Whenever you get covered with snow, be sure to brush yourself off. It's important to keep snow off your clothes so it doesn't melt into your clothing and refreeze as ice near your body.
5. At the end of the day, as your activity decreases and the outside temperature drops, you're going to be adding layers of clothing. Once your body starts to cool down, it's going to take a lot of the body's resources (calories) to heat up again (remember, your body is like a furnace), so do your best to anticipate and add layers before you get chilled. It's better to put on more than you think you need – you can always remove layers, take off your hat or unzip your coat to reach a comfortable temperature.



## Let's review what we've learned so far:

1. **Layer your clothing. Wear several layers of lighter clothing instead of one heavy layer. This way you can decide on the amount of insulation. If you get warm, you can take layers off and add some more clothing layers if you get cold.**
2. **Wear loose fitting clothing, to optimize insulation.**
3. **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.**
4. **Use a pair of socks to cover hands if mittens get wet.**
5. **Wear a stocking cap or other warm hat. One that covers the ears and neck area is particularly effective. Because most heat loss is through the head, wearing a warm hat warms the rest of your body, too.**
6. **Wear a scarf or turtleneck shirt to reduce heat loss around the neck. You can use a "ski mask" or scarf over your face for protection from the cold and wind.**
7. **If you need a fire to keep you warm, you aren't dressed correctly. If the heat from a fire can penetrate your clothes and warm your body, cold air can get through, too.**
8. **Don't wait until you're cold to put on more clothes. Add another layer when you first begin to feel cooler.**
9. **What does C-O-L-D stand for???? (Go ahead – you can look back)**
10. **Of the following pictures, circle the best choices of footwear for a cold weather campout.**





## SLEEPING IN COLD WEATHER

### What do we need??



### Tents –

- **Strength** – your tent needs to be relatively strong to combat the wind and snow.
- **Ability to shed snow** - the tent must have a roof line that allows snow to fall off. Otherwise, the tent will load up and the weight will cause it to collapse.
- **Room** - you need lots of internal space on a winter trip for all the bulky gear you bring along. So, you are limited to two boys per tent.
- **Dome type tents** are recommended because they're durable, they shed snow fairly well and they provide ample interior space for occupants and their gear.



### Sleeping Bags

Sleeping bags for winter camping should be rated to temperatures below what you will be exposed to. For example, if the temperature can drop to 30° F, then your bag should be rated to 10° F. If the bag is too big, you will have large spaces of cold air, and as you may have guessed, you will be cold. In a bag that has too much space, you may need to wear extra clothes to stay warm, or fill the dead air with unused clothes to reduce the size of the "cold air" space in your bag. Just as with clothing, it's not the bag that keeps you warm, it's your body's furnace that is warming that dead air space. So, minimize the open space or you'll be cold all night.

Unless you have a sleeping bag with a very low degree rating (0° or better), it would be a good idea to bring a fleece bag liner or camping blanket to put inside your sleeping bag during cold weather for additional insulation. In warm weather, the blanket can be used instead of a sleeping bag or you can sleep on top of your bag in the blanket.



## Sleeping Pads

Sleeping pads are useful for two reasons -- first, they keep you comfortable when you're sleeping on hard, uneven ground. Second, they provide an important layer of insulation between you and the ground, which cuts down on conductive heat loss.

How do they work? Sleeping pads insulate the same way that sleeping bags and clothing layers do. They trap and hold a layer of dead air between your body and the cold ground. Your body gradually warms this layer of dead air and it becomes an insulating barrier.

The primary variables to consider when choosing a pad are:

- Insulation
- Comfort
- Weight/Bulkiness
- Durability

## Let's look at some sleeping pad options:

- **Air mattresses** - basic, inflatable air bladders

**Positives** - They're comfortable, adjustable and inexpensive.

**Negatives** - They tend to be heavy, bulky and they can be punctured/ripped easily. Air inside is free to circulate, so they tend to be poor insulators. It's like lying on a pillow of cold air.

- **Cots** – basic, elevated

**Positives** - They're comfortable, and you're off the ground.

**Negatives** - They can be heavy, bulky and awkward. Air circulates all around your body, making them very poor insulators.

- **Open-cell foam pads** - sponge-like foam pads made up of tiny, open air cells

**Positives** - They're comfortable, lightweight and inexpensive. The tiny foam cells restrict air circulation, so they are also more effective insulators than air mattresses.

**Negatives** - Open-cell foam is absorbent, which can cause problems in wet conditions. It's also less insulating than closed-cell foam (it must be cut about four times as thick to get the same insulation). Open-cell foam tends to be bulky, difficult to compress (for packing) and not very durable.

- **Closed-cell foam pads** - pads made out of dense foam filled with tiny closed air cells

**Positives** - They're cheap, durable (won't pop when tromped on) and extremely insulative (almost no circulation of air in pad, so they can be cut thin yet still provide good insulation). Closed-cell foam is also non-absorbent.

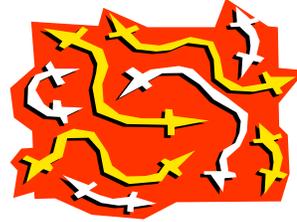
**Negatives** - They're relatively stiff and firm, with far less cushioning than open-cell foam (so you'll need a thicker, heavier piece to be as comfortable).

- **Self-inflating pads** - open-cell foam pads wrapped in air-tight, waterproof nylon shells

**Positives** - They're as comfortable as open-cell foam, but much more insulating (the nylon shell limits air circulation, while also protecting against water absorption). They're adjustable (built-in air valves let you control the amount of air inside and thus the firmness of the pad) and they're extremely compact when rolled up.

**Negatives** - They're more expensive than the options listed above. Can be punctured or ripped (though field repairs are not difficult). Heavier than open- or closed-cell pads.





## **Bedding Tips & Pointers:**

- 1. 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.**
- 2. 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.**
- 3. Do not sleep with your head under the covers. Doing so will increase the humidity in the bag that will reduce the insulation properties of the bag and increase dampness.**
- 4. Wear a loose fitting hooded pull over type sweatshirt to sleep in. Sometimes, it's nice to have the ability to pull the hood up and over your hat on really chilly nights.**
- 5. A bag liner made from an old blanket, preferably wool or fleece, will greatly enhance the bags warmth.**
- 6. Use a sleeping pad of closed cell foam instead of an air mattress or cot.**
- 7. A good rule of thumb is that you want 2 to 3 times the insulation below you as you have over you.**
- 8. Use a ground cloth to keep ground moisture from your bag. Your body will warm up frozen ground to a point where moisture can become important.**
- 9. Cold air will be above and below you if you sleep on a cot.**
- 10. Put a hand warmer (in a sock) at the foot of your sleeping bag before getting into it.**
- 11. Exercise a little bit before bedding down to increase body heat. This will help to warm your bag quicker. Be careful not to start perspiring, or you'll have to change clothes.**
- 12. Remove the clothes you wore during the day, and put on clean, dry clothes before climbing into your bag.**
- 13. I use a pair of wool socks to cover my hands at night. My four fingers keep my thumb warmer because all my digits are sharing the same dead air space.**

*How are you doin'?? You still with me??*

*If you are, see if you can answer this question.*

**What does C-O-L-D stand for??**

*Did you look back, or did you remember?? It really doesn't matter, as long as you know it.*



**Okay, let's move on to a few health issues we must be aware of when we go cold weather camping.**



## COLD WEATHER

### FIRST AID



#### What is Dehydration?

Dehydration is the excessive loss of body water. It can interfere with your ability to think clearly, so you may not react properly. Dehydration is not just a summertime sickness.

#### Prevention:

- Drink at least 2 quarts of water a day.
- Avoid dehydrating foods (high protein) and fluids (coffee, caffeine).
- Increase fluid intake at first signs of darker, yellow urine.

#### Symptoms:

- Early stages consist of an increased pulse rate
- Nausea and loss of appetite
- Dark urine or constipation
- Irritability, fatigue
- Thirst
- Next comes headaches and dizziness
- Difficulty breathing
- Tingling
- Absence of saliva
- Inability to walk
- Cyanosis (bluish or grayish skin color)

#### Treatment:

- In mild cases, drink liquids and keep warm.
- In severe cases of dehydration, get professional medical treatment.



## What is 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, hypothermia usually occurs when the temperature is not extremely cold, typically between 40° and 50° F, and even as high as 70° F. More often than not, the victim is unable to think clearly, and won't recognize the symptoms for himself. Severe injury or death may result from hypothermia, so it's very important to understand it. It is said that 85% of wilderness deaths are hypothermia related. Don't be one of those statistics.

### Conditions that may contribute to hypothermia:

- Poor physical condition.
- Inadequate nutrition and water intake.
- Thin build.
- Non-protective clothing.
- Getting wet.
- Inadequate protection from wind, rain and snow.
- Exhaustion.

### Symptoms:

- Loss of ability to reason.
- Shivering.
- Slowing, drowsiness, fatigue.
- Stumbling.
- Thickness of speech.
- Inability to do something simple, such as zipping a zipper or tying a knot.
- Amnesia.
- Irrationality, poor judgment.
- Hallucinations.
- Cyanosis (blueness of skin).
- Dilation of pupils of eyes.
- Decreased heart and respiration rate.
- Appears to be in a trance.

### Treatment of Hypothermia:

- Shelter the victim from wind and weather.
- Insulate the victim from the ground.
- Change wet clothing.
- Put on windproof, waterproof gear.
- Increase exercise, if possible.
- Put in a pre-warmed sleeping bag.
- Give hot drinks, followed by candy or other high-sugar foods.
- Apply external heat; hot stones, hot canteens.
- Huddle for body heat from others.
- Place victim in a tub of 105° F water. Never above 110° F.

### Prevention:

- Stay rested, and maintain good nutrition.
- Consume plenty of high-energy food.
- Wear proper clothing.
- Make camp early if tired, injured or lost.
- Get plenty of exercise. Don't sit around much.
- Appoint an experienced person to watch the group for signs of hypothermia.
- Take immediate corrective action for any noticeable signs.



## What is Frostbite?

Frostbite is the actual freezing of the skin and underlying tissues. Recovery is very slow, and severe frostbite can lead to the need for amputation. Once exposed, the victim will be susceptible toward frostbite in the future.

### Conditions which may contribute to Frostbite:

- Prolonged exposure to temperatures 32° F or below.
- Brief exposure at extremely low temperatures, -25° F and below.
- Exposed body parts
- Restriction of circulation.
- Fatigue, poor nutrition, low liquid intake, poor physical condition.
- Previous case of frostbite or other cold injury.

### **Symptoms of Frostbite:**

- **First Degree (Frostnip)**
- **Redness, pain, burning, stinging or prickly sensation.**
- **Pain disappears and there is a sudden blanching of the skin.**
- **The skin may look mottled.**
- **Skin is firm to the touch, but resilient underneath.**
- **On thawing, there is aching pain or brownness. The skin may peel off, and the part may remain cold for some time.**
- **Second Degree (Superficial Frostbite, Frostbite)**
- **No pain, the part may feel dead.**
- **Numbness, hard to move the part.**
- **Tissue and layers underneath are hard to the touch.**
- **After thawing (takes 3 to 20 days) pain, large blisters, sweating.**
- **Black or discolored skin sloughs off, leaving tender new skin.**
- **Third degree (Severe Frostbite)**
- **Full thickness of the skin is involved.**
- **After thawing, pain continues for 2 to 5 weeks.**
- **Fourth degree (Severe Frostbite)**
- **Skin and bone are frozen.**
- **Swelling and sweating occur.**
- **Gangrene may develop, amputation may be necessary.**

### **Treatment:**

- **Do not rub affected area with snow. Hold it over fire, or use cold water to thaw it.**
- **Exercise the affected area to promote blood circulation.**
- **Use any warmth available to thaw area.**
- **Do not attempt to thaw frostbitten limbs in the field. It is less harmful for the victim to walk out on a frostbitten limb than to thaw it in the field. Thawing only risks additional injury and the victim will be in too much pain to walk.**
- **Check for hypothermia.**

### **Prevention:**

- **Proper clothing.**
- **Good nutrition, drink water, maintain core temperature.**
- **Use buddy system to check face, nose, and ears.**
- **Immediate treatment of minor symptoms.**



## Packing



### Personal equipment suggested for a 2 night cold weather camping trip:

- Tent
- Food and preparation equipment
- Sleeping bag
- Fleece or wool bag liner
- Sleeping pad
- 3 large plastic bags
- Toothbrush and paste
- Medications
- Nalgene or other unbreakable water bottle
- 3 pair of underwear
- 2 t-shirts
- Ski/snow pants
- 2 long sleeved shirts
- 2 turtleneck shirts
- 2 hats which completely cover the ears
- Sleeping clothes
- Rain gear able to fit over many layers
- 2 pair of mittens, 1 pair of gloves
- 2 pair of pants
- Boots (Waterproofed)
- 4 pair of heavy socks (wool or wool/nylon blended)
- 2 pair of lighter socks
- Parka or heavy jacket, with hood
- Extra boots
- Flashlight with fresh batteries
- Scout Handbook
- Pack clothing in sealed plastic bags
- Label as much of your gear as possible

## **ODDS AND ENDS, AND BITS AND PIECES**

1. If you can't get warm or you get cold at night, let the adult leadership know so something can be done before injury occurs.
2. Organization and proper preparation is very important in cold weather camping. Good meals, good shelter and comfortable sleeping arrangements make for an enjoyable outing.
3. Learn to recognize and treat cold weather health problems. These include frostbite, hypothermia, dehydration, and carbon monoxide poisoning.
4. Use the buddy system to check each other for cold weather health problems. Notify the adult leadership if your buddy seems to be showing any symptoms. Better safe than sorry.
5. If you feel cold, gather some wood or do some other type of work. Working will help warm you up.
6. Contact lenses can be a problem. Will your saline solution freeze??
7. Eating ice or snow can reduce your body temperature and it is not pure. Don't eat it.
8. Snow and ice can be used for drinking water but only after boiling.
9. Wiggling your toes inside your boots will help keep feet warm. If your feet get cold put on a stocking cap.
10. It takes longer to cook food in cold weather, so plan accordingly. Before going to bed pour enough water for breakfast into a pot. It is easier to heat the pot than a plastic water can.
11. Keep your matches in a metal match safe as plastic can freeze and break if dropped.
12. Gather twice as much fuel as you think you'll need for fires.
13. Carry tinder from home. It may be hard to find in snow or wet conditions.
14. Gather your wood and tinder for the morning fire in the evening so that you will be able to start the fire quickly in the morning.
15. 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.
16. Heaters inside your tent can lead to carbon monoxide poisoning. **NO FLAMES OR FIRES IN TENTS.**
17. If you feel tired, sleepy or cold, tell a leader.
18. Keep close tabs on your buddy and others in your group. Watch for signs of hypothermia, frostbite, dehydration, and exhaustion. Talk to each other. Encourage each other to have a drink of water, eat something, slow down, or sit and rest. If you suspect a problem, notify one of the leaders.
19. If you use an inhaler for asthma, keep it close to your body for warmth, because if it gets too cold, there's a good possibility that it won't work when you need it.
20. There's one more – and it's the most important thing you can remember.

**Can you guess what the last one is??**



## 21. C-O-L-D stands for:

C – keep yourself and your clothes Clean

O – avoid Overheating

L – wear clothes loose and in Layers

D – keep Dry



*Sadly, not all Boy Scout Troops camp year round, because they don't realize how simple it can be. OKPIK is the training course offered by Northwest Suburban Council, teaching cold weather camping techniques to adults and youth over the age of 14.*

*I hope you've found some of this material useful in planning YOUR cold weather campout!! If you have questions, I encourage you to contact me at 847-293-4954 or via e-mail at [heine.r@comcast.net](mailto:heine.r@comcast.net)*

