Don’t get caught out in the cold!

Whether hiking, snowshoeing, back-country skiing or snowmobiling, winter recreation has many advantages; no bugs, no crowds and great views. However, a little more thought is required to keep you safe and comfortable in cold weather. The following suggested guidelines provide safety precaution information for day-use winter recreation.

Things to consider:

- **Dress appropriately** (see clothing, below). Include some spares, such as mittens, socks or under layers. Make sure your pack stays dry too. Remember eye protection, such as sunglasses or goggles for bright sunlight reflecting off snow.

- **Trail map** of intended route, so you have an idea of where you are and where you’re headed. Get a current edition map, trail routes and uses can change.

- **Determine route & let someone know** your destination, the time of your start and planned return. Be aware of sunset. Consider that you have less available daylight is in the winter, so plan a realistic route and distance with options should dusk come sooner than you anticipate.

- **Stay on the Trail.** Keep track of painted or plastic trail blazes. White blazes indicate the Appalachian Trail, blue blazes for other trails on state park lands.

- **Never Travel Alone.** Safety in numbers. Having one or more other people gives you the ability to share gear, resources or planning should someone be in need. “Two heads are better than one.”

- **Drink water.** Don’t wait until you feel thirsty to start replacing fluids and electrolytes. Dehydration can cause fatigue and confusion. **Avoid** sugar or caffeine drinks which can make you lose water faster.

- **Eat.** The body spends enormous amount of energy to stay warm. Eat foods high in calories and carbohydrates for the best defense against exhaustion and hypothermia.

- **Pace yourself.** If you’re able to walk and talk without effort this means your body is getting enough oxygen and functioning efficiently (aerobically); you sweat less, so you stay dryer and warmer.

- **Traction.** Maintain your stability. Use snowshoes, crampons, clip-on traction device or cleats as specific conditions warrant. Also use trekking poles with a carbide tip that bites into the ice; these also provide a great knee saver on the descents.
Clothing

Synthetic fabrics such as pile, bunting, and fleece are excellent for winter, keeping you warm and quickly wicking away and evaporating body moisture. Natural fibers such as wool and silk are good too, keeping you warm when wet. Avoid cotton which provides minimal insulation when wet.

Winter clothing is a system of three layers, loose enough to allow movement, yet provide a warm dead air space between layers. Clothing must breathe well so water vapor can escape:

1. **Under layer:** *keeping you dry* - polypropylene-synthetic underwear.
2. **Middle layer:** *keeping you warm* - fleece pullover.
3. **Outer layer:** *protecting the under layers* - Wind & waterproof jacket (shell) with hood, hiking pants and gaiters, to keep snow out of your boots.

For the extremities:

A fleece hat can be taken on and off to help regulate your temperature, best if it can also protect face and neck. You can loose over 70% of body heat through the head.

Mittens, wool or fleece; recommended in combination with a waterproof over-glove. Mittens keep fingers together, conserving heat more effectively.

Boots, waterproofed. Either a vapor-barrier (rated to -40º F) or pack type (-5º F). Use the "sock-and-a-half" system: a polypropylene sock liner and wool outer sock.

Hypothermia

A potentially fatal condition caused by a progressive loss of body temperature.

When a person is chilled at a rate greater than the body's ability to generate heat, body functions slow or diminish. Hypothermia can become a problem in relatively mild conditions too. When wind chill temps drop below 50º Fahrenheit (10º Celsius) and a person becomes wet from precipitation or sweat, conditions are possible for hypothermia.

The primary causes for hypothermia are improper dress, over exhaustion, improper eating and drinking, and getting wet. If not treated immediately death could result within a matter of hours.

Symptoms of Hypothermia

- Grogginess
- Intense shivering
- Difficulty in manual dexterity
- Slurred speech
- Sluggish thinking

Treatment for Hypothermia

- **Stop immediately!** Find shelter out of the wind.
- **Re-warm** the body with dry clothing. If a sleeping bag is available, get in while getting clothes as dry as possible.
- **Stay hydrated.** Drink hot liquids if possible. Avoid caffeine.
- **Eat** high calorie/carbohydrate-energy foods such as an energy bar or jerky.
- **Avoid eating snow.** It uses too much body energy. Heat snow and melt to drink.
- **Keep drinking and eating** until body temperature is back to normal.
Should you become lost
Stop and think! Conserve your vital energy. Survival is staying WARM and DRY while waiting to be found.

- **Stay Together.** Do not separate.
- **Stay in one place.** Do not wander.
- **Find a cozy waiting place,** not a hiding place. Out of the wind, under a tree is a good spot.
- **Keep warm,** as best you can.
- **Put out something bright.** To attract searchers to find you.
- **Insulate where you sit.** Sit on your pack or evergreen branches if necessary to prevent cold and wet from penetrating your body.
- **Call 9-1-1** if you have a cell phone. Note trail you took and approximate location.

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**Winter Emergency Kit**

_A suggested emergency kit guideline:

- Compass with mirror
- Tin cup
- Candle
- Waterproofed matches
- First aid kit
- Foods high in calories & carbohydrates: such as energy bars and jerky
- Pocket knife
- Flashlight or headlamp (keep batteries warm, next to your body)
- Space blanket or plastic tarp and rope
- Portable or collapsible saw
- Spare socks and mittens
- Plastic whistle
- Lightweight backpacking stove

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_Help yourself, help each other._

Please share this information. Ranger or emergency assistance is often delayed and occasionally unavailable. Therefore we encourage you to help each other.