

---

---

## Cold Weather

When the weather gets cold, New Hampshire residents should take precautions against freezing temperatures, winter storms, and strong winds. These conditions can create problems for people who spend time outdoors, because of their work or other reasons, especially when there is wind involved. Cold-related health problems increase when there is a strong wind. Wind chill refers to the cooling effect wind has on the skin together with the temperature. As the winds increase, heat is carried away from the body at a faster and faster rate, eventually making it hard for the body to keep up, leading to health risks.

### **What are the health concerns with cold weather?**

Hypothermia, the severe and prolonged loss of body heat, and frostbite, literally the freezing of the skin and extremities, are the two most common conditions resulting from exposure to severe cold.

### **What exactly is hypothermia?**

Hypothermia begins when a person's body temperature falls below 95 degrees. Because the temperature drop may be gradual, and an early symptom of hypothermia is mental confusion, the victim may not know a problem exists.

### **Who is at risk for hypothermia?**

Hypothermia is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F) if a person becomes chilled from rain, sweat, or submersion in cold water. Anyone can become hypothermic, but people with certain conditions, such as cardiovascular disease, diabetes, and hypertension, may be at increased risk. Seniors and young children are also at increased risk.

### **What are the symptoms of hypothermia?**

Keep a watch out for hypothermia symptoms, which include:

- uncontrolled shivering
- confusion
- drowsiness
- memory loss
- clumsiness
- slurred speech
- a drop in blood pressure
- shallow breathing, and
- a pinkish tint to the skin

### **What should I do if I suspect someone has hypothermia?**

If you notice any of these signs, take the person's temperature. If it is below 95°, the situation is an emergency—get medical attention immediately. If medical care is not available, begin warming the person, as follows:

- Get the victim into a warm room or shelter.
- If the victim has on any wet clothing, remove it.
- Warm the center of the body first—chest, neck, head, and groin—using an electric blanket, if available. Or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels, or sheets.
- Warm beverages can help increase the body temperature, but do not give alcoholic beverages. Do not try to give beverages to an unconscious person.
- After body temperature has increased, keep the person dry and wrapped in a warm blanket, including the head and neck.
- Get medical attention as soon as possible.

A person with severe hypothermia may be unconscious and may not seem to have a pulse or to be breathing. In this case, handle the victim

gently, and get emergency assistance immediately. Even if the victim appears dead, cardiopulmonary resuscitation (CPR) should be provided. CPR should continue while the victim is being warmed, until the victim responds or medical aid becomes available. In some cases, hypothermia victims who appear to be dead can be successfully resuscitated.

### **What is frostbite?**

Frostbite, or freezing of the body tissues, can be caused by wind chill. Frostbite can occur in 15 minutes or less at wind chill values of 18°F or below, and it most often affects the nose, cheeks, ears, chin, fingers, and toes.

### **Who is at risk of frostbite?**

Anyone can get frostbite, but people are at increased risk of frostbite when they are exhausted, hungry, or dehydrated, which lowers the body's defenses against cold.

### **What are the symptoms of frostbite?**

The symptoms to look for are:

- Cold, white and hard skin
- Pain
- Itching in the exposed skin
- Loss of feeling in the affected area
- Colored spots or blotches on the skin

### **What should I do if I think someone has frostbite?**

If you detect symptoms of frostbite, seek medical care. Because frostbite and hypothermia both result from exposure, first determine whether the victim also shows signs of hypothermia, as described previously. Hypothermia is a more serious medical condition and requires emergency medical assistance.

If (1) there is frostbite but no sign of hypothermia and (2) immediate medical care is not available, proceed as follows:

- Get into a warm room as soon as possible.
- Unless absolutely necessary, do not walk on frostbitten feet or toes—this increases the damage.
- Immerse the affected area in warm—not hot—water (the temperature should be comfortable to the touch for unaffected parts of the body).

- Or, warm the affected area using body heat. For example, the heat of an armpit can be used to warm frostbitten fingers.
- Do not rub the frostbitten area with snow or massage it at all. This can cause more damage.
- Don't use a heating pad, heat lamp, or the heat of a stove, fireplace, or radiator for warming. Affected areas are numb and can be easily burned.

These procedures are not substitutes for proper medical care. Hypothermia is a medical emergency and frostbite should be evaluated by a health care provider.

### **What steps should I take to protect against hypothermia and frostbite?**

Taking preventive action is your best defense against having to deal with extreme cold-weather conditions. By preparing your home and car in advance for winter emergencies, and by observing safety precautions during times of extremely cold weather, you can reduce the risk of weather-related health problems.

- Be attentive to weather reports of extreme cold and wind.
- Limit time outdoors when conditions are very cold, especially the elderly and very young, as well as pets.
- Keep an emergency kit in your car and at home, including flashlights, fresh batteries, a battery- or hand-powered radio, bottled water, non-perishable food, and a first aid kit.
- Make sure your car is winterized: keep the gas tank in your car at least half full and have jumper cables, a tow rope, snacks and blankets in the trunk.

**For more information about very cold weather and health concerns, visit the New Hampshire Department of Health and Human Services website at [www.dhhs.nh.gov](http://www.dhhs.nh.gov) or the Centers for Disease Control and Prevention website at [www.bt.cdc.gov/disasters/winter/staysafe](http://www.bt.cdc.gov/disasters/winter/staysafe).**