



## How to Promote Your Personal Health and Safety in Winter Weather

When the weather is extremely cold, and especially if there are high winds, try to stay indoors. Make any trips outside as brief as possible, and remember the following tips to protect your health and safety.

### 1. Dress Warmly and Stay Dry

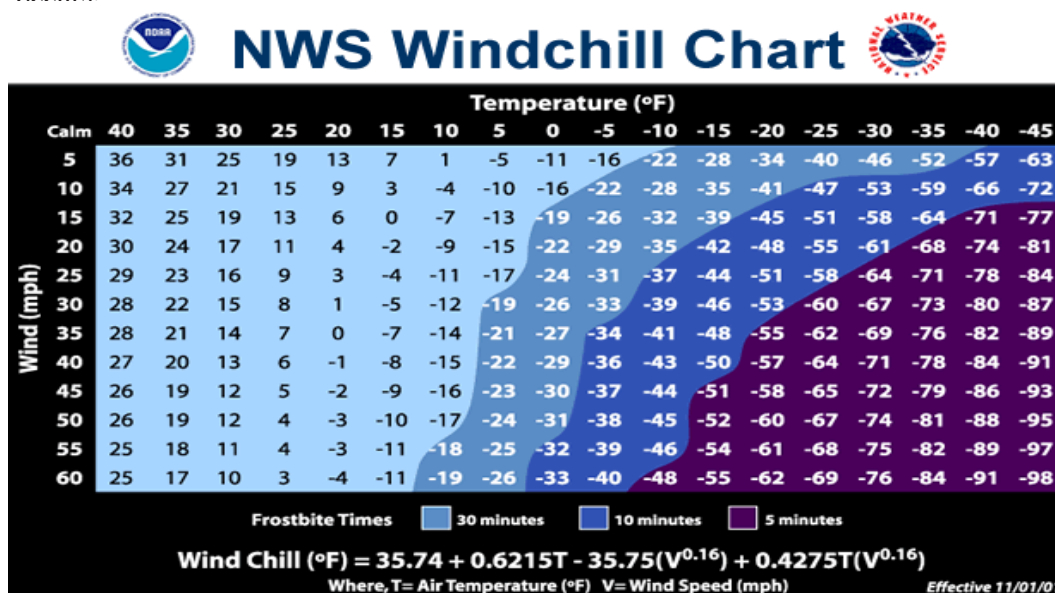
It is important to wear:

- A hat
- A scarf or knit mask to cover face and mouth
- Sleeves that are snug at the wrist
- Gloves
- Water-resistant coat and boots
- Several layers of loose-fitting clothing.

Be sure the outer layer of your clothing is tightly woven, preferably wind resistant, to reduce body-heat loss caused by wind. Wool, silk, or polypropylene inner layers of clothing will hold more body heat than cotton. Stay dry—wet clothing chills the body rapidly. Excess perspiration will increase heat loss, so remove extra layers of clothing whenever you feel too warm. **Do not ignore shivering.** It's an important first sign that the body is losing heat. Persistent shivering is a signal to return indoors.

### 2. Understanding Wind Chill

The Wind Chill index is the temperature your body feels when the air temperature is combined with the wind speed. It is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the speed of the wind increases, it can carry heat away from your body much more quickly, causing skin temperature to drop. When there are high winds, serious weather-related health problems are more likely, even when temperatures are only cool. The Wind Chill Chart below shows the difference between actual air temperature and perceived temperature, and amount of time until frostbite occurs



### 3. Cold Weather Health Emergencies

Serious health problems can result from prolonged exposure to the cold. The most common cold related problems are hypothermia and frostbite.

#### •Hypothermia



When exposed to cold temperatures, your body begins to lose heat faster than it can be produced. Prolonged exposure to cold will eventually use up your body's stored energy. Body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia particularly dangerous because a person may not know it is happening and won't be able to do anything about it.



#### *Recognizing Hypothermia*

Warnings signs of hypothermia:

If you notice any of these signs: shivering, exhaustion, confusion, fumbling hands, memory loss, slurred speech, drowsiness; take the person's temperature. If it is below 95°, the situation is an emergency—gets 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 etc.
- 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, 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.

#### •Frostbite

Frostbite is an injury to the body that is caused by freezing. Frostbite causes a loss of feeling and color in affected areas. It most often affects the nose, ears, cheeks, chin, fingers, or toes. Frostbite can permanently damage the body, and severe cases can lead to amputation. The risk of frostbite is increased in people with reduced blood circulation and among people who are not dressed properly for extremely cold temperatures.

#### *Recognizing Frostbite*

At the first signs of redness or pain in any skin area, get out of the cold or protect any exposed skin—frostbite may be beginning. Any of the following signs may indicate frostbite:

- a white or grayish-yellow skin area
- skin that feels unusually firm or waxy
- numbness

#### *What to do*

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.
- Do not rub the frostbitten area with snow or massage it at all. This can cause more damage.