



Preparing for Winter Weather

What are the hazards associated with winter weather?

Many sources of injury associated with winter weather have a public health impact. In fact, countless injuries and deaths occur each winter as people try to get around in cold, stormy weather and keep their homes warm. Some winter hazards include:



- **Winter Driving** – In 2005, 264,000 motor vehicle crashes occurred during sleet and snowy conditions. Of these crashes, 31,000 caused injuries and more than 750 resulted in deaths.
- **Hypothermia** – Each year, nearly 700 people die of hypothermia (low body temperature) caused by extended exposure to cold temperatures both indoors and out. About half of these deaths are among people age 65 and older. They are more likely to occur among men than women. Risk factors for hypothermia include:
 - older age
 - alcohol abuse
 - homelessness
 - poverty
 - mental illness
 - dehydration and malnutrition
 - chronic diseases such as hypothyroidism
 - prolonged exposure to materials that promote heat loss (e.g., water, metal).
- **Snow Blowers** – Snow blowers are the fourth leading cause of finger amputations associated with consumer products. Injuries from snow blowers result in more than 5,300 emergency department visits and 1,000 amputations each year.
- **Carbon Monoxide Poisoning** – Each year, more than 200 Americans die from carbon monoxide (CO) poisoning. Carbon monoxide is a colorless, odorless gas. In addition, emergency departments treat several thousand people each winter for CO poisoning. CO may come from fuel-burning motor vehicles, appliances, and heating systems. The risk of CO poisoning and death grows during the winter, because of the increased use of heating systems, space heaters and fireplaces. CO poisoning can occur when someone sits in an idling vehicle with the doors and windows closed. A CDC study found that motor-vehicle-related CO poisoning increases during winter months and that death rates from CO poisoning in stationary motor vehicles are highest in the states with the coldest average winter temperatures. During just two days in January 1996, 22 people in New York City died from CO poisoning because their vehicle exhaust pipes were packed with snow and CO backed up into the vehicle.



- **Power Failures** –Ice storms, such as the one that recently struck the Midwestern United States, can leave people without electricity. This can result in hypothermia, lack of water due to frozen pipes, carbon monoxide poisoning resulting from use of alternative heat sources, food spoilage, and other public health problems.

What can we do to lessen the impact of winter weather emergencies?

- **Winterize vehicles** – Preparing vehicles for winter driving will help decrease risk. Provide a list of supplies to carry in the car, and information about how to stay warm and get help if stranded. Detailed information is available at:
<http://www.bt.cdc.gov/disasters/winter/beforestorm/preparecar.asp>
- **Check the wind chill factor** – When weather is below freezing, release advisories on how long someone can stay outside without getting frostbite. The National Weather Services site (<http://www.weather.gov/os/windchill/index.shtml>) on windchill has information that can help.
- **Dress appropriately** – Clothing that is loose, lightweight, but warm, can be layered to maintain warmth. Outer layers should be water-repellent. Half of all body heat lost is from the head, so wearing a hat is important. Covering the mouth with a scarf will protect the lungs from extremely cold air and mittens—snug at the wrist—are better than gloves at preventing frostbite.
- **Install carbon monoxide (CO) detectors in homes** – Working CO detectors in the home serve to warn of dangerous levels of carbon monoxide, which is colorless and odorless. Another risk of CO poisoning is posed when the exhaust pipe of a motor vehicle is blocked by snow.
- **Prepare an emergency supply kit** – Update emergency supply kits for the home and car with winter supplies such as warm clothing and blankets.

Resources:

1. The NWS's Winter Weather Safety and Awareness site <http://www.weather.gov/os/winter/index.shtml>
2. Winter Storms: The Deceptive Killer. A Preparedness Guide. US Department of Commerce, NOAA, NWS <http://www.weather.gov/os/winterstorm/winterstorms.pdf>



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