



Winter Preparedness

The National Weather Service refers to winter storms as the "Deceptive Killers" because most deaths are actually indirectly related to storms. People are injured or killed in traffic accidents on icy roads, or suffer from hypothermia due to prolonged exposure to the cold. Another major danger associated with winter storms is their ability to knock out heat, power and communications, sometimes for days at a time.

Winter Weather Terminology

In order to be better prepared, it is important to become familiar with terms used to report winter weather phenomena. Knowing the below terms will enable you to take the necessary precautions to protect you and your family.

Winter Weather Advisory	Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconveniences and, if caution is not exercised, could lead to life-threatening situations.
Winter Storm Outlook	Issued prior to a Winter Storm Watch. The Outlook is given when forecasters believe winter storm conditions are possible and are usually issued 3 to 5 days in advance of a winter storm.
Winter Storm Watch	Alerts the public to the possibility of a blizzard, heavy snow, heavy freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 48 hours before the beginning of a Winter Storm.
Winter Storm Warning	Issued when hazardous winter weather in the form of heavy snow, heavy freezing rain, or heavy sleet is imminent or occurring. Winter Storm Warnings are usually issued 12 to 24 hours before the event is expected to begin.
Blizzard Warning	Issued for sustained or gusty winds of 35 mph or more, and falling or blowing snow creating visibilities at or below ¼ mile; these conditions should persist for at least three hours.
Wind Chill Advisory	Issued when wind chill temperatures are expected to be a significant inconvenience to life with prolonged exposure, and, if caution is not exercised, could lead to hazardous exposure.
Wind Chill Warning	Issued when wind chill temperatures are expected to be hazardous to life within several minutes of exposure.
Snow Flurries	Light snow falling for short durations. No accumulation or light dusting is all that is expected.
Snow Showers	Snow falling at varying intensities for brief periods of time. Some accumulation is possible.
Snow Squalls	Brief, intense snow showers accompanied by strong, gusty winds. Accumulation may be significant. Snow squalls are best known in the Great Lakes region.
Blowing Snow	Wind-driven snow that reduces visibility and causes significant drifting. Blowing snow may be snow that is falling and/or loose snow on the ground picked up by the wind.
Sleet	Rain drops that freeze into ice pellets before reaching the ground. Sleet usually bounces when hitting a surface and does not stick to objects. However, it can accumulate like snow and cause a hazard to motorists.
Freezing Rain	Rain that falls onto a surface with a temperature below freezing. This causes it to freeze to surfaces, such as trees, cars, and roads, forming a coating or glaze of ice. Even small accumulations of ice can cause a significant hazard.



Winter Preparation

- Winterize your home and vehicle
- Before winter approaches, add the following supplies to your emergency kit:
 - ◇ Rock salt or more environmentally safe products to melt ice on walkways.
 - ◇ Sand to improve traction.
 - ◇ Snow shovels and other snow removal equipment.
 - ◇ Consider purchasing a NOAA Weather Radio in order to monitor critical information from the National Weather Service (NWS) so you can stay alert to changing weather conditions
- Ensure you have sufficient heating fuel. You may become isolated in your home and regular fuel sources may be cut off. If you have a fireplace or wood burning stove, store a good supply of dry, seasoned wood
- Make certain you have adequate clothing and blankets to keep warm.
- Make a Family Communications Plan. Your family may not be together when disaster strikes, so it is important to know how you will contact one another, how you will get back together and what you will do in case of an emergency.
- Keep a disaster supplies kit in your vehicle.
- Bring pets/companion animals inside during winter weather.
- Move other animals or livestock to sheltered areas with non-frozen drinking water.
- If you will be going away during cold weather, leave the heat on in your home, set to a temperature no lower than 55°F.



During Winter Storms and Extreme Cold

- Stay indoors during the storm.
- Maintain ventilation when using portable kerosene and gas heaters to avoid build-up of toxic fumes. Refuel portable heaters outside and keep them at least three feet from flammable objects.
- Dress for the Weather
 - ◇ If you must go outside, wear several layers of loose-fitting, lightweight, warm clothing rather than one layer of heavy clothing. The outer garments should be tightly woven and water repellent.
 - ◇ Wear mittens, which are warmer than gloves.
 - ◇ Wear a hat. A hat will prevent loss of body heat.
 - ◇ Cover your mouth with a scarf to protect your lungs.
- Walk carefully on snowy, icy, walkways.
- Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack—a major cause of death in the winter. Use caution, take breaks, push the snow instead of lifting it when possible, and lift lighter loads.
- Keep dry. Change wet clothing frequently to prevent a loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.
- Signs of Frostbite: Occurs when the skin and body tissue just beneath it freezes. Loss of feeling and white or pale appearance in extremities, such as fingers, toes, earlobes, face, and the tip of the nose.
 - ◇ What to Do: Cover exposed skin, but do not rub the affected area in an attempt to warm it up. Seek medical help immediately.
 - ◇ The U.S. Centers for Disease Control and Prevention (CDC) recommends, 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. Hypothermia is a more serious medical condition and requires emergency medical assistance.
- Signs of Hypothermia: Dangerously low body temperature. Uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.
 - ◇ What to Do: If symptoms of hypothermia are detected take the person's temperature. If it is below 95°, seek medical attention immediately. Get the victim to a warm location. Remove wet clothing. Warm the center of the body first by wrapping the person in blankets or putting on dry clothing. Give warm, non-alcoholic beverages if the victim is conscious. Seek medical help immediately.



- Drive only if it is absolutely necessary. If you must drive: travel in the day; don't travel alone; keep others informed of your schedule; stay on main roads and avoid back road shortcuts.
- Let someone know your destination, your route, and when you expect to arrive. If your car gets stuck along the way, help can be sent along your predetermined route.
- If the weather becomes too dangerous to continue driving:
 - ◊ Pull off the road. Turn on hazard lights and hang a distress flag from the radio antenna or out the window.
 - ◊ Remain in your vehicle where rescuers are most likely to find you. Do not set out on foot unless you can see a building close by where you know you can take shelter. Be careful; distances are distorted by blowing snow. A building may seem close, but be too far to walk to in deep snow.
 - ◊ Run the engine and heater about 10 minutes each hour to keep warm. When the engine is running, open a downwind window slightly for ventilation and periodically clear snow from the exhaust pipe. This will protect you from possible carbon monoxide poisoning.
 - ◊ Exercise to maintain body heat, but avoid overexertion. In extreme cold, use road maps, seat covers, and floor mats for insulation. Huddle with passengers and use your coat for a blanket.
 - ◊ Take turns sleeping. One person should be awake at all times to look for rescue crews.
 - ◊ Eat regularly and drink ample fluids to avoid dehydration, but avoid caffeine and alcohol.
 - ◊ Don't waste battery power; only use what is needed.
 - ◊ Turn on the inside light at night so work crews or rescuers can see you.
 - ◊ If stranded in a remote area, stomp large block letters in an open area spelling out HELP or SOS and line with rocks or tree limbs to attract the attention of rescue personnel who may be surveying the area by airplane.
 - ◊ If necessary, leave your vehicle and proceed on foot once the severe weather conditions pass.



After a Winter Storm

After winter storms have blown through and skies are sunny again, it can be tempting to go outside immediately, especially if you've been stuck inside for multiple days. Roads, sidewalks and other hard surfaces can still be dangerous for days after a storm and very cold temperatures may linger on. Take the following precautions after a winter storm:

- Continue to conserve food and water until you can be sure it is safe to travel to replenish your food supplies. If your area's emergency management authorities have issued an alert to boil water before drinking, be sure to heed their warnings until the alert has been lifted.
- Wait for streets and roads to be opened before you attempt to drive anywhere.
- Be extremely careful when driving. Snow and ice can melt during the day and then re-freeze to an icy glaze when the sun goes down and temperatures drop below freezing again.
- If you've lost power, use battery-powered flashlights rather than candles or other open flames for light. Many injuries and deaths result from accidental fires caused by candles during winter storms.
- If your home loses power or heat for more than a few hours or if you do not have adequate supplies to stay warm in your home overnight, you may want to go to a designated public shelter if you can get there safely. Text **SHELTER** + your **ZIP code** to **43362** (4FEMA) to find the nearest shelter in your area (e.g., SHELTER20472)
 - ◊ Bring any personal items that you would need to spend the night, such as toiletries and medicines.
 - ◊ Ensure to tell family and friends that you have relocated to a shelter.
- Always use caution when entering or leaving a building damaged by high winds or snow.
- After blizzards, heavy snows, or extreme cold, check for structural damage and ensure water pipes are functioning. If you suspect your pipes have frozen, call a plumber to inspect the pipes as soon as possible. If a pipe has indeed frozen and/or burst, shut off your home's water valve immediately.
- Report downed power lines and broken gas lines immediately.
- Check on neighbors, especially those who might need help, such as the elderly.



Learn From Every Storm

- Restock your emergency supplies to be ready in case another storm hits.
- Assess how well your supplies and family plan worked. What could you have done better?
- Take a few minutes to improve your family plan and supplies before the next winter storm hits.
- Talk to your neighbors and colleagues about their experiences and share tips with each other.