

Natural Disasters: Winter Storm and Extreme Cold

Definition and Characteristics:

Winter storms may have their primary precipitation fall as snow, sleet, rain that freezes into ice, or any combination of these. When accompanied by winds above 32 MPH, a winter storm becomes a blizzard. Extremely cold temperatures may lead to hypothermia in individuals unable to find shelter. Winter storms can also result in flooding, disruptions in transportation systems, and power failures.

Terminology:

Freezing Rain	Rain that freezes when it hits the ground, creating a coating of ice on roads, walkways, trees, and power lines.
Sleet	Rain that turns to ice pellets before reaching the ground. Sleet also causes moisture on roads to freeze and become slippery.
Winter Storm Watch	A winter storm is possible in your area. Tune in to NOAA Weather Radio, local radio, or television for information.
Winter Storm Warning	A winter storm is occurring or will soon occur in your area. Take shelter immediately.
Blizzard Warning	Sustained winds or frequent gusts to 35 miles per hour or greater and considerable amounts of falling or blowing snow (reducing visibility to less than a quarter mile) are expected to prevail for a period of three hours or longer.
Frost/Freeze Warning	Below freezing temperatures are expected.

Public Information / Recommended Actions:

Before	<p>Make a plan: Be alert to changing weather conditions. Listen to NOAA Weather Radio or local radio or television newscasts for the latest information. If storms are approaching, be prepared to take shelter immediately.</p> <p>Prepare your home:</p> <ul style="list-style-type: none"> • Be sure to have winter supplies in you emergency supplies kits: rock salt, sand, snow shovels, warm clothing, blankets, etc. • Prepare for possible isolation by having sufficient heating fuel and alternatives if regular fuel sources are cut off. • Winterize your home by insulating walls and attics, caulking and weather-stripping doors and windows, and installing storm windows or plastic coverings. • Winterize your car by checking battery and ignition system, antifreeze, heater and defroster, windshield wipers and washer fluid, thermostat, lights and flashing hazard lights, exhaust system, brakes, oil, etc. Consider snow tires. Keep a full tank of gas. • Dress for the weather: Wear several layers of loose fitting, lightweight, warm clothing rather than one layer of heavy clothing. Outer garments should be
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	tightly woven and water repellent. Mittens are warmer than gloves. Wear a hat. Cover your mouth with a scarf to protect your lungs.
During	<ul style="list-style-type: none"> • Take shelter immediately. Listen to radio and television sources above for weather reports and emergency information. • Eat regularly and drink ample fluids, but avoid caffeine and alcohol. • Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack—a major cause of death in the winter. If you must shovel snow, stretch before going outside. • Watch for signs of frostbite and hypothermia (see below). If symptoms are detected, administer first aid and get medical help immediately. • Conserve fuel, if necessary, by keeping your residence cooler than normal. Temporarily close off heat to some rooms. • Maintain ventilation when using kerosene heaters to avoid build-up of toxic fumes. Refuel kerosene heaters outside and keep them at least three feet from flammable objects. • Drive only if absolutely necessary. If you must drive, consider the following: travel in the day, don't travel alone, and keep others informed of your schedule. Stay on main roads and avoid shortcuts. • If trapped in your car: Pull off the highway. Turn on hazard lights and hang a distress flag from the radio antenna or 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. Run the engine and heater about 10 minutes each hour to keep warm. When the engine is running, open an upwind window slightly for ventilation to prevent possible carbon monoxide poisoning. Periodically clear snow from the exhaust pipe. 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. Drink fluids to avoid dehydration. Be careful not to waste battery power. 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. Leave the car and proceed on foot if necessary only after the storm passes.
After	<ul style="list-style-type: none"> • Call 911 if medical assistance is needed. • Stay away from downed power lines, and report them to the power company.

Additional Information:

First Aid for Cold-Induced Illnesses:

Condition	Symptoms	First Aid
Frostbite	Loss of feeling and white or pale appearance in extremities such as	<ul style="list-style-type: none"> • Get victim to a warm location and give warm non-alcoholic

	fingers, toes, ear lobes, and the tip of the nose.	<p>beverages.</p> <ul style="list-style-type: none"> • Warm the frozen part quickly without rubbing, preferably by immersing in warm (not too hot) water, and protect it from further trauma. • Get medical help as soon as possible.
Hypothermia	Uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.	<ul style="list-style-type: none"> • Get the victim to a warm location. • Remove wet clothing, warm the center of the body first, and give warm, non-alcoholic beverages if the victim is conscious. • Get medical help as soon as possible.