



Be Prepared for Winter Weather Prepare For a Winter Storm Plan

- Have extra blankets on hand at home and in vehicles
- Ensure that each member of your household has a warm coat, gloves or mittens, hat, and water-resistant boots.
- Have a communication plan in the event of a sudden storm. Carry important contact numbers with you and distribute to family, friends and caregivers. Assemble a Disaster Supplies Kit Containing
 - First aid kit and essential medications.
 - Battery-powered NOAA Weather radio, flashlight, and extra batteries. • Canned food and can opener.
 - Bottled water (at least one gallon of water per person per day to last at least 3 days).
 - Extra warm clothing, including boots, mittens, and a hat.
 - Assemble a Disaster Supplies Kit for your car, too.
 - Have your car winterized before winter storm season. Stay Tuned for Storm Warnings.
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- Listen to NOAA Weather Radio and your local radio and TV stations for updated storm information. Know What Winter Storm WATCHES and WARNINGS Mean
 - A winter storm WATCH means a winter storm is possible in your area. • A winter storm WARNING means a winter storm is headed for your area.
 - A blizzard WARNING means strong winds, blinding wind-driven snow, and dangerous wind chill are expected. Seek shelter immediately! When a Winter Storm WATCH is Issued...
- Listen to NOAA Weather Radio, local radio, and TV stations, or cable TV such as The Weather Channel for further updates.
- Be alert to changing weather conditions.



- Avoid unnecessary travel. When a Winter Storm WARNING is Issued...
- Stay indoors during the storm.
- If you must go outside, several layers of lightweight clothing will keep you warmer than a single heavy coat. Gloves (or mittens) and a hat will prevent loss of body heat. Cover your mouth to protect your lungs.
- Understand the hazards of wind chill, which combines the cooling effect of wind and cold temperatures on exposed skin.
- As the wind increases, heat is carried away from a person's body at an accelerated rate, driving down the body temperature. • Walk carefully on snowy, icy, sidewalks.
- After the storm, if you shovel snow, be extremely careful. It is physically strenuous work, so take frequent breaks. Avoid overexertion.
- Avoid traveling by car in a storm, but if you must... Carry a Disaster Supplies Kit in the trunk. Keep your car's gas tank full for emergency use and to keep the fuel line from freezing. 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 You Do Get Stuck...
- Stay with your car. Do not try to walk to safety.
- Tie a brightly colored cloth (preferably red) to the antenna for rescuers to see.
- Start the car and use the heater for about 10 minutes every hour. Keep the exhaust pipe clear so fumes won't back up in the car.
- Leave the overhead light on when the engine is running so that you can be seen.
- As you sit, keep moving your arms and legs to keep blood circulating and to stay warm.
- Keep one window away from the blowing wind slightly open to let in air. Your Local Red Cross Chapter Can Provide Additional Materials in English and Spanish:
- "Safe Steps for Winter Weather" (ARC 5056)
- "Surviving the Cold" 16-minute video (Available for a nominal fee) (321709)



- "Your Family Disaster Plan"
- "Your Family Disaster Supplies Kit" (ARC 4463) Materials for Children:
- "Be Ready 1-2-3" involve puppets who give important safety information to children ages 3-8 about residential fire safety, winter storms, and earthquakes.
- "Disaster Preparedness Coloring Book" (PDF File) (ARC 2200, English, or Spanish) for use by children 3-10.
- "Adventures of the Disaster Dudes" (ARC 5024) video and Presenter's Guide for use by an adult with children in grades 4-6. Source: American Red Cross, 2001 Winter weather glossary National Weather Service definitions of winter weather terms. Watches, warnings and advisories
- **Blizzard warning:** Sustained winds or frequent gusts of 35 mph occurring in combination with considerable falling and/or blowing snow for a period of at least three hours. Visibilities will frequently be reduced to less than one-quarter mile and temperatures will often remain extremely cold in a blizzard.
- **Heavy snow warning:** Snow accumulations are expected to approach or exceed six inches in 12 hours but will not be accompanied by significant wind. A heavy snow warning could also be issued if eight inches or more of accumulations are expected in a 24 hour period. In addition, during a heavy snow warning, freezing rain and sleet are not expected.
- **Ice storm warning:** A significant coating of ice, one-quarter inch or more, is expected.
- **Wind chill warning:** Life-threatening wind chills reach minus 50 or lower. Criteria varies across the nation.
- **Winter storm watch:** A significant winter storm may affect your area, but its occurrence, location and timing are still uncertain. A winter storm watch is issued to provide 12 to 36 hours notice of the possibility of severe winter weather. A watch will often be issued when neither the path of a developing winter storm nor the consequences of the weather event are as yet well defined. Ideally, the winter storm watch will eventually be upgraded to a warning when the nature and location of the developing weather event becomes more apparent. A winter storm watch is intended to provide enough lead time so those who need to set plans in motion can do so.
- **Winter storm warning:** Issued when hazardous winter weather is occurring, imminent or likely. A warning is used for winter weather conditions posing a threat to life and



property. A winter storm warning are usually issued for heavy snow approaching or exceeding six inches, ice accumulations, dangerous wind chills, or a combination of the three. Warnings can be issued for lesser amounts of snow, say 3 to 6 inches, if the snow occurs with strong winds in excess of 20 miles an hour and/or significant sleet or heavy ice accumulations from freezing rain. Expected snow accumulation during a winter storm warning is four inches or more in 12 hours or six inches or more in 24 hours at low, flat areas such as the Plains or South. For mountainous areas less than or equal to 7,000 feet, a snowfall of six inches or more in 12 hours or 10 inches or more in 24 hours would prompt a warning. For elevations greater than 7,000 feet, snowfall of eight inches or more in 12 hours or 12 inches or more in 24 hours would qualify for a warning. A USAODAY.com weather graphic and text explains how winter storm watches and warnings and blizzard warnings differ. Winter weather definitions

- **Blizzard:** Winds of 35 mph or more along with considerable falling and/or blowing snow reducing visibility to less than one-quarter mile for three or more hours. Extremely cold temperatures often are associated with dangerous blizzard conditions, but are not a formal part of the definition. The hazard created by the combination of snow, wind and low visibility significantly increases, however, with temperatures below 20 degrees. An online weather graphic illustrates the kind of conditions experienced in a blizzard. See "blizzard warning" below.

- **Blowing snow:** Wind driven snow that reduces visibility to six miles or less causing significant drifting. Blowing snow may be snow that is falling and/or loose snow on the ground picked up by the wind.

- **Drifting snow:** Uneven distribution of snowfall caused by strong surface winds. Drifting snow does not reduce visibility.

- **Flurries:** Light snow falling for short durations. No accumulation or just a light dusting is all that is expected.

- **Freeze:** Occurs when the surface air temperature is expected to be 32 degrees Fahrenheit or below over a widespread area for a significant period of time.

- **Freezing rain or drizzle:** Occurs when rain or drizzle freezes on surfaces such as trees, cars and roads, forming a coating or glaze of ice. Temperatures above the ground are warm enough for rain to form, but surface temperatures are below 32 degrees Fahrenheit, causing the rain to freeze on impact. Even small accumulations of ice can be a significant hazard.

- **Frost:** Describes the formation of thin ice crystals on the ground or other surfaces. Frost develops when the temperature of the earth's surface falls below 32 degrees



Fahrenheit, but because frost is primarily an event that occurs as the result of radiational cooling, it frequently occurs with air temperatures in the middle 30s.

- Graupel: Small pellets of ice created when supercooled water droplets coat, or rime, a snowflake. The pellets are cloudy or white, not clear like sleet, and often are mistaken for hail.
- Heavy snow: Depending on the region of the USA, this generally means that four or more inches of snow has accumulated in 12 hours, or six or more inches of snow in 24 hours.
- Ice storm: An ice storm is used to describe occasions when damaging accumulation of ice are expected during a freezing rain situation. Significant accumulations of ice are defined as one-quarter inch or greater. This can cause trees, utility and power lines to fall down causing the loss of power and communication.
- 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. Heavy sleet occurs when a half of an inch of sleet accumulates.
- Snow showers: Snow falling at varying intensities for brief periods of time. Some accumulation is possible.
- Snow squalls: Intense, but of limited duration, periods of moderate to heavy snowfall, accompanied by strong, gusty surface winds and possible lightning.
- Watch: A watch is used when the risk of a hazardous weather event has increased significantly, but the occurrence, location and timing are still uncertain.
- Warning/Advisory: These products are issued when a hazardous weather event is occurring, is imminent or has a very high probability of occurrence. A warning is used for conditions posing a threat to life or property. Advisories are for less serious conditions that cause significant inconvenience and, if caution is not exercised, could lead to situations that may threaten life and property.
- Whiteout: A condition caused by falling and/or blowing snow that reduces visibility to nothing or zero miles; typically only a few feet. Whiteouts can occur rapidly often blinding motorists and creating chain-reaction crashes involving multiple vehicles. Whiteouts are most frequent during blizzards.
- Wind chill: The wind chill is based on the rate of heat loss from exposed skin caused



by the combined effects of wind and cold. As the wind increases, heat is carried away from the body at an accelerated rate, driving down the body temperature. This temperature is the reading the body "feels" given the combination of wind and air temperature. At wind speeds of four mph or less, the wind chill temperature is the same as the actual air temperature. The threshold for potentially dangerous wind chill conditions is about minus 20 degrees Fahrenheit. Source: National Weather Service More Winter Weather Safety Tips 1. Dressing for cold weather:

- Wear several layers of loose fitting, lightweight clothing.
- Wear mittens instead of gloves. Wear a hat.
- Remember that entrapped, insulating air, warmed by body heat is the best protection from the cold. 2. Avoid Overexertion:
 - The strain from cold temperatures and heavy labor such as shoveling, pushing a car, or walking in deep snow may cause a heart attack in older and less physically fit individuals. 3. Winterize Your Vehicle Early:
 - Be prepared against the first blast of winter. Avoid automobile gas line freeze ups by keeping your tank greater than half full at all times.
 - Make sure that your car has adequate antifreeze.
 - Make sure that your tires have good traction and are inflated to the right pressure.
 - Make sure that your heater and defroster work properly.
 - Make sure that your battery is not more than 3 years old and that it can carry a full charge.
 - Make sure that you have a good ice scraper. 4. Carry a Winter-Survival Safety Kit in your vehicle:
 - Bring along blankets and a bright piece of cloth to tie on your antenna if you become stranded.
 - Flashlight with spare batteries.
 - Extra change of clothing to keep dry.
 - Non-perishable foods such as candy bars, canned goods, or high calorie food like



Power Bars.

- A can and waterproof matches (used to melt snow for drinking water).
- A compass, shovel and sand, tow rope, and jumper cables. 5. Before traveling:
- Check the latest forecast from KGAN. at KGAN Current Weather!
- Check the latest road conditions before you head out into Winter weather.
- Let someone know where you are going and when you think you will reach your destination. 6. If you become stranded in your vehicle during a Winter storm:
- Stay in your car, truck, or minivan.
- Run the engine at 10 minute intervals for heat.
- Maintain proper ventilation by making sure the exhaust pipe is not plugged.
- Leave the windows open slightly to avoid carbon monoxide poisoning.
- Make yourself visible to rescuers. Tie a bright cloth to your antenna or door handle.
- Turn on the dome light at night, but only when running the engine. 7. At home, do the following before Winter becomes a reality:
- Have your furnace checked before you need to use it.
- Seal any windows that you suspect allow cold air into the house with caulking or plastic.
- Include a home safety kit that includes extra non-perishable food, medicine, and a battery operated radio.
- Keep a flashlight and extra batteries handy.
- Keep candles and matches handy for extended periods of electrical loss. 8. If you lose heat in your home:
- Seal off any unused rooms by stuffing towels or rags in the cracks under the door.
- Cover the windows with blankets or sheets at night if you have some extras available.



- Use only devices that are designed for heating indoors during as emergency heat source and handle all safety precautions. 9. Install and test smoke alarms in your home:
- Have fire extinguishers checked to combat an accidental fire due to the use of alternative heat sources. Source: WeatherEye/KGAN-TV