



Winter storms can bring freezing temperatures, large quantities of snow and ice, high winds and blizzard conditions. As a result, hazards to you and your family's health are possible. Preparing before the storm can help you protect your family.

Before a Winter Storm: Prepare Your Family

- **Stay informed.**
 - Monitor for severe winter weather in your area at the NOAA National Weather Service. <http://www.weather.gov/>
- **Know the terminology.**
 - **Winter Storm Watch:** Severe winter conditions, such as heavy snow and/or ice, are possible for your area in the next 12 to 36 hours. Prepare now!
 - **Winter Storm Warning:** Severe winter conditions are expected in the next 12-24 hours; 4-6 inches of snow or sleet, or 1/4 inch or more of ice is expected. Seek shelter immediately!
 - **Blizzard Warning:** Snow and strong winds (gusts up to 35 mph or greater) will combine to produce a blinding snow (near zero visibility), deep drifts, and life threatening wind chill; expected to occur for three hours or longer.
- **Prepare an emergency kit.**
 - Food, water and necessities for all members of the family to last 3 to 5 days; high energy food (e.g., dried fruit) or canned food that require no cooking or refrigeration is best
 - Any medications needed for family members
 - First aid kit, battery powered radio, flashlight with extra batteries
 - Sleeping bags or blankets
 - Extra clothing and boots, hats, mittens
 - Fire extinguisher
 - Emergency contact numbers
- **Family communication plan.**
 - Inquire about emergency plans at places where your family spends time: work, daycare and school.
 - Have a plan of how you will contact each other if you are in separate locations or establish a location to meet.
 - Have an out-of-state relative or friend serve as the family contact person.
 - Learn the location of the emergency shelters for your area.

Before a Winter Storm: Prepare Your Vehicle

- **Prepare your car for winter.**
 - Have your car systems serviced; check the battery, antifreeze, wipers, etc.
 - Replace wiper fluid with a wintertime mixture.
 - Replace worn tires; check the air pressure in the tires.
 - Keep the gas tank full to avoid ice in the tank or fuel lines.
- **Prepare a survival kit for your car that includes:**
 - Blankets/sleeping bags
 - Extra winter clothes (mittens, hats, scarves), boots
 - High calorie, non-perishable food (e.g., unsalted nuts, dried fruit); hard candy can help keep your mouth moist
 - A can and waterproof matches to melt snow for drinking water
 - Flashlight, extra batteries, battery powered radio, first aid kit
 - Shovel, windshield scraper
 - Road salt, sand or cat litter
 - Cell phone and charger
 - Jumper cables, tow rope, tool kit
 - Compass and road maps

During a Winter Storm

- **Stay informed.**
 - Listen to local news and weather channels for situation developments and road closures.
- **Stay inside.**
 - Avoid traveling during the storm period.
 - This can help you avoid injuries from cold temperatures, slips on the ice or car accidents.
- **Gather your emergency supplies.**
 - Be prepared for power outages or conditions requiring you to remain at home for several days.
- **Stay safe while indoors.**
 - Use fireplace, wood stoves, or other combustion heaters only if they are properly vented to the outside.
 - Use battery-powered flashlights or lanterns.
 - Avoid using candles; if they are used never leave them unattended while lit.
 - If you lose power or heat to your home and do not have back-up heat options, go to a designated public shelter.
- **Stay nourished.**
 - Eat to provide your body with energy to produce its own heat.
 - Keep your body replenished with fluids to prevent dehydration.

- **Cooking safety.**

- Never use charcoal grills or portable gas camp stove indoors —the fumes can be deadly.

- **If you have to go outside,**

- Dress warmly and in layers; loose-fitting, lightweight, warm clothing is best.
- Wear a hat; most body heat is lost through the top of the head.
- Cover your mouth with a scarf to protect your lungs from cold temperatures.
- Stay dry to avoid frostbite and hypothermia.
- Avoid ice. Many cold-weather injuries result from falls on ice-covered sidewalks, steps, driveways, and porches.
- Avoid exertion. Cold weather puts an extra strain on the heart. If you have heart disease or high blood pressure, follow your doctor's advice about shoveling snow or performing other hard work in the cold.

- **If you are caught outside during a storm,**

- Try to find a shelter out of the wind.
- Stay dry and cover all exposed parts of your body.

- **If you must travel,**

- Do so during daylight.
- Don't travel alone.
- Stay on main roads.
- Tell others about your route and schedule.

- **If you get stranded in your vehicle,**

- Stay calm! Staying in your vehicle is often the safest choice.
- Turn on your hazard lights.
- Make yourself visible to rescuers:
 - Tie a distress flag (preferably red) to your antenna or window.
 - Turn on the dome light at night, but only when running the engine. You don't want to wear down your battery.
- Run the motor/heater for only about 10 minutes per hour.
 - Open a window slightly to let fresh air in.
 - Make sure snow is not blocking the exhaust pipe to avoid potential carbon monoxide poisoning.
- As you sit, keep moving your arms and legs to improve your circulation and stay warmer.
- Drink fluids to remain hydrated.
- Do not leave your car unless you know exactly where you are, how far it is to possible help, and you are certain this action will improve your situation.
- Do not let all occupants of the car sleep at once; one person should always remain awake.

After a Winter Storm

- **Check on neighbors to see if they need help.**

- **Clear away the snow safely.**

- Wear sturdy shoes or boots, layered clothing, hat and gloves.
- Do not overexert yourself. Shoveling causes many heart attacks, especially in very cold temperatures.
- Pace yourself, work slowly, and rest frequently.
- Take your time and lift small amounts.
- Lift snow/shovel properly to avoid back injuries.
- Make sure you have good footing when lifting the snow shovel.

- **Use caution with gas powered equipment.**

- Dangerous carbon monoxide can be generated by gas-powered equipment as well as alternative heating sources.
- Use these items only in well ventilated areas.
- **Signs:** dizziness • light-headedness • nausea

- **Once the blizzard is over, you may need to leave your vehicle and proceed on foot.**

- Follow the road if possible.
- If you need to walk across open country, use distant points as landmarks to help maintain your sense of direction.

Cold-Related Illnesses

- **If any of these conditions are suspected, SEEK MEDICAL CARE IMMEDIATELY!**

- **Frostbite.**

- Can occur following prolonged exposure to low temperatures, wind or moisture.
- **Signs:** white, waxy or pale appearance to extremities (e.g., fingers, toes, nose, ear lobes); skin is cold and numb

- **Hypothermia.**

- Occurs when the core body temperature drops to a level at which normal muscle and brain functions are impaired.
- **Signs:** extreme shivering • confusion or disorientation • memory loss • slurred speech • drowsiness • exhaustion
- If you can't get help quickly, warm the person's body **SLOWLY** and start with the body core first, **NOT** the extremities.
- Do not give the person any alcohol, coffee or any **HOT** beverage or food. Warm broth or food is better.

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Winter storms can bring freezing temperatures, large quantities of snow and ice, high winds and blizzard conditions. Damage to your home or power outages lasting several days may be possible. Preparing before the storm can help you protect your family and your home.

Before a Winter Storm

- **Weatherproof/winterize your home.**
 - Caulk and weatherstrip doors and windows.
 - Add insulation, insulated doors, storm windows, or thermal-pane windows.
 - Insulate any water lines that run along exterior walls so they will be less likely to freeze.
 - Know how to shut off water valves (in case a pipe bursts).
- **Determine a back-up heating source in case the power goes out.**
 - Gas or log fireplace with plenty of dry firewood
 - Portable space heaters or kerosene heaters
 - Check with your local fire department to make sure that kerosene heaters are legal in your area.
 - Use heating sources only in a well ventilated room to avoid build up of lethal carbon monoxide gas.
 - Keep a fire extinguisher close by.
 - Have your chimney or flue inspected each year.
- **Install a smoke detector and a battery-operated carbon monoxide detector near the area to be heated.**
 - Test them monthly.
 - Replace batteries twice yearly.

During a Winter Storm

- **Keep as much heat as possible inside your home.**
 - Check the temperature in your home often during severely cold weather.
 - Avoid unnecessary opening of doors or windows.
 - Close off unneeded rooms.
 - Stuff towels or rags in cracks under doors.
 - Close draperies or cover windows with blankets at night.
- **Use battery-powered flashlights or lanterns rather than candles, if possible.**
 - Never leave lit candles unattended.
- **Leave all water taps slightly open so they drip continuously.**

- **If back-up heating sources are needed**
 - Never place a space heater on top of furniture or near water.
 - Use electric space heaters with automatic shut-off switches and non-glowing elements.
 - Keep heat sources at least 3 feet away from furniture, drapes, or bedding.
 - Never cover a space heater.
 - Never leave children unattended near a space heater.
- **If backup power supplies are needed,**
 - Never use an electric generator indoors, inside the garage, or near the air intake of your home because of the risk of carbon monoxide poisoning.
 - Do not store gasoline indoors where the fumes could ignite.
 - Use individual heavy-duty, outdoor-rated cords to plug in other appliances.
- **Never use a charcoal or gas grill indoors—the fumes are deadly.**
 - Dangerous carbon monoxide can be generated.

After a Winter Storm

- **Assess the situation.**
 - Make sure heating systems are working.
 - Make sure water pipes are working.
 - Look for any damage that may have occurred to your home.
- **If your pipes do freeze,**
 - Do not thaw them with a torch.
 - Instead, thaw them slowly by directing the warm air from an electric hair dryer onto the pipes.
- **Carbon monoxide poisoning**
 - Buildup of this odorless, lethal gas can occur from the use of alternate fuel sources, or gas powered equipment or vehicles.
 - Ensure good ventilation is available before using any of these items.
- **If there are no other problems, wait for streets and roads to be plowed before you drive anywhere.**

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Winter storms can impact animal health as well as human health. Pets exposed to prolonged cold and wind chills increase their risk for cold-related illnesses. Prepare now to protect your pets during winter storms.

Before the Winter Storm

- **Stock up on food for your pet.**
 - In the event of road closures, be sure to have extra food available for your pet.
 - If your pet is on continual medications, have at least a two-week supply on hand.
- **Identification.**
 - All animals should have some sort of identification (collar with tag, microchip).
 - Take a photo of the pet and keep it with the medical records.
 - Include any proof of ownership materials (e.g., registration, proof of purchase, adoption records, microchip information).

During a Winter Storm

- **Bring your pets inside immediately.**
 - Bring pets indoors, into the house or garage, to provide warm shelter.
 - Keep pets away from any alternate heating sources being used to avoid burns.
- **If you can't bring them inside,**
 - Provide adequate shelter to keep them warm.
 - NEVER leave your pet chained outside or enclosed in a way they cannot escape danger.
 - Pets that live outdoors should be fed a bit more in the winter because they need the extra calories to stay warm.
 - Remember to provide fresh water and ensure that the water does not freeze.
 - Check often to make sure that access to food and water is not blocked by snow drifts, ice or other obstacles.
 - Use a plastic dish to prevent your pet's tongue from freezing to a metal bowl.
- **If your pet goes outdoors,**
 - Most long-haired or full-coated dogs do fine in winter with just their own, natural coats.
 - Shorter-coated dogs need a dog coat to protect them from the wind, snow, and cold.
 - Check their paws upon their return to make sure that ice is not building up between the toes, or that salt or ice melt is not irritating the skin.
 - Never leave your animals alone for prolonged periods in the car during the winter. Your car can become a freezer quickly.
 - Check underneath your car's hood for small animals (like cats) that may have crawled inside seeking warmth.

Winter-Related Illnesses

Prolonged exposure to low temperatures, wind or moisture can result in cold-related illness for pets.

- **If any of these conditions are suspected, SEEK VETERINARY CARE IMMEDIATELY!**
- **Antifreeze.**
 - Ingesting anti-freeze can be fatal for your dog or cat. If you spill some, soak it up immediately.
- **Frostbite.**
 - Pets can get frostbite very easily on the ears, tail and paws. If your pet goes outdoors, be aware of the temperature and wind chill.
 - Signs may not be immediately obvious and may not show for several days.
 - **Signs:** white, waxy or pale appearance to extremities (e.g., toes, nose, ears, tail); skin is cold and numb with loss of feeling; sloughing of skin.
- **Hypothermia.**
 - Occurs when the core body temperature drops to a level at which normal muscle and brain functions are impaired.
 - Pets can become hypothermic after being in cold temperatures for long periods of time or from being wet in cold conditions.
 - **Signs:** extreme shivering • slow, shallow breathing, • gums may be pale or blue, • animal may be unresponsive
 - Warm the animal's body **SLOWLY** and start with the body core first, **NOT** the extremities.
 - Do not give the animal anything **HOT** to drink. Warm broth or food is better.

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Severe winter weather can lead to property damage, employee illness or injury, and possible business closures. Preparing before the storm can help you protect your employees, minimize damage and recover quicker following a winter storm situation.

Before a Winter Storm

- **Stay informed.**
 - Monitor for severe winter weather in your area at the NOAA National Weather Service. <http://www.weather.gov/>
- **Know the terminology.**
 - **Winter Storm Watch:** Severe winter conditions, such a heavy snow and/or ice, are possible for your area in the next 12 to 36 hours. Prepare now!
 - **Winter Storm Warning:** Severe winter conditions are expected in the next 12-24 hours; 4-6 inches of snow or sleet, or 1/4 inch or more of ice is expected. Seek shelter immediately!
 - **Blizzard Warning:** Snow and strong winds (gusts up to 35 mph or greater) will combine to produce a blinding snow (near zero visibility), deep drifts, and life threatening wind chill; expected to occur for three hours or longer.
- **Stockpile emergency materials.**
 - Standby electric generator for emergency power
 - Sandbags, shovel, road salt or ice melt
- **Establish shelter locations on your property.**
 - There should be enough room for all employees, any customers or suppliers who may be at your business during the hazardous situation.
 - Stock the shelter with emergency supplies (e.g., flashlights, battery powered radio, first aid kit, food, water, and blankets).
- **Make plans regarding customers.**
 - Determine the likelihood of customers being present if a severe storm situation.
 - Have an emergency plan for customers; review it with employees regularly.
- **Have a business emergency/continuity plan**
 - Be prepared for power outages that often accompany severe weather.
 - Determine any essential equipment or processes that rely on electrical power.
 - Have emergency power (e.g., backup generators) available for these items.
 - Maintain an inventory of all equipment and assets for your business in the event of structural damage.
 - Install surge protectors to protect electronic equipment.

- **Determine a back-up heating source in case the power goes out.**
 - Use heating sources only in a well ventilated room to avoid build up of lethal carbon monoxide gas.
 - Keep a fire extinguisher close by.
- **Install a smoke detector and a battery-operated carbon monoxide detector near the area to be heated.**
 - Test them monthly.
 - Replace batteries twice yearly.
- **If employees work outdoors,**
 - Schedule work during the morning and late-afternoon hours, if possible.
 - Avoid strenuous activities outdoors.
 - Postpone nonessential tasks.

During a Winter Storm

- **Stay informed.**
 - Listen to local news and weather channels for situation developments and road closures.
- **Ensure employee and customer safety.**
- **Stay safe while indoors.**
- **If backup power supplies are needed,**
 - Never use an electric generator indoors, inside the garage, or near the air intake of your home because of the risk of carbon monoxide poisoning.
 - Do not store gasoline indoors where the fumes could ignite.
 - Use individual heavy-duty, outdoor-rated cords to plug in other appliances.

After a Winter Storm

- **Clear away the snow safely.**
 - Avoid overexertion. Strain from the cold and the hard labor can lead to a heart attack - a major cause of death in the winter.
 - Pace yourself, work slowly, and rest frequently.
 - Make sure you have good footing when lifting the snow shovel.
- **Assess the situation.**
 - Make sure heating systems and water pipes are working.
 - Look for any damage that may have occurred to your home.
- **Account for your inventory.**
 - Check buildings for damage (e.g., downed power lines or trees, accumulated snow or ice).

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The impact of winter storms on farms can involve a number of issues. Farm buildings can be damaged due to heavy snow or ice accumulation. Power failures or fuel shortages can impact animal production. Prepare now to protect your farm during winter storms.

Before a Winter Storm

- **Stay informed.**
 - Monitor for severe winter weather in your area at the NOAA National Weather Service. <http://www.weather.gov/>
- **Know the terminology.**
 - **Winter Storm WATCH:** Severe winter conditions, such as heavy snow and/or ice, are possible for your area in the next 12 to 36 hours. Prepare now!
 - **Winter Storm WARNING:** Severe winter conditions are expected in the next 12-24 hours; 4-6 inches of snow or sleet, or 1/4 inch or more of ice is expected. Seek shelter immediately!
 - **Blizzard WARNING:** Snow and strong winds (gusts up to 35 mph or greater) will combine to produce a blinding snow (near zero visibility), deep drifts, and life threatening wind chill; expected to occur for three hours or longer.
- **Be prepared for power outages or conditions requiring you to remain at home for several days.**
- **Develop an emergency plan for water and feed resources.**
 - Obtain emergency supplies of forage and grain.
 - Identify emergency resources for water.
 - Have a list of suppliers, truckers, and people that can help with the animals, especially if normal working conditions are disrupted.
- **Stockpile emergency materials.**
 - Standby electric generator for emergency power
 - Sandbags, shovel, road salt or ice melt
- **Winterize any buildings that may provide shelter for your family, livestock or equipment.**
 - Install storm shutters, doors, and windows.
 - Caulk and weatherstrip doors and windows.
 - Check the roof structure for its ability to hold heavy weight accumulations of snow and ice.
 - Repair any roof leaks.
 - Add insulation, insulated doors, storm windows, or thermal-pane windows.
 - Insulate any water lines that run along exterior walls so they will be less likely to freeze.

During a Winter Storm

- **Stay informed.**
 - Listen to local news and weather channels for situation developments and road closures.
- **Have an emergency plan in place for farm workers.**
 - Have shelter and extra food, water, and blankets.
- **If you are caught outside during a storm,**
 - Try to find a shelter out of the wind.
 - Stay dry and cover all exposed parts of your body.

After a Winter Storm

- **Stay safe during cleanup.**
 - Wear sturdy shoes or boots, layered clothing, hat and gloves.
 - Avoid overexertion. Strain from the cold and the hard labor could cause a heart attack - a major cause of death in the winter.
 - Pace yourself, work slowly, and rest frequently.
 - Make sure you have good footing when lifting the snow shovel.
 - Take your time and lift small amounts.
 - Lift snow/shovel properly to avoid back injuries.
- **Use caution with gas powered equipment.**
 - Dangerous carbon monoxide can be generated by gas-powered equipment as well as alternative heating sources.
 - Use these items only in well ventilated areas.
- **Account for your inventory.**
 - Note any livestock losses.
 - Check buildings and fences for damage (e.g., downed power lines or trees, accumulated snow or ice).
 - Take photographs of all damage for insurance or emergency assistance purposes.

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Winter storms can be stressful to livestock, especially those kept outdoors. Wind chills and prolonged cold increases their need for shelter, food and water. Dehydration can be a great hazard during winter storms. Prepare now to protect your livestock during winter storms.

Before a Winter Storm

- **Develop an emergency plan of action.**
 - How will you get feed supplies in the case of road closures?
 - How will you supply water with freezing temperatures?
 - Plan ahead for emergency or alternative heat sources (e.g., for poultry facilities).
 - How will a power outage or fuel shortage impact the care and well-being of my livestock? What back up plan would you use?
 - Have well maintained backup generators for livestock production operations.
 - How will needed services (e.g., milk pickup) be provided? Or what will you do if needed services are not provided due to road closures?
- **Maintain an inventory.**
 - Keep a current list of all animals on your farm.
 - Include their location and any records of vaccinations, testing and ownership.
 - Make sure animals have some form of permanent identification (e.g., ear tags, tattoos).
 - Establish a list of suppliers, truckers, and people that can help with the animals, if needed.
- **Set up shelter or windbreak areas for animals kept outdoors.**
 - Shallow open front sheds
 - Windbreaks or timber-covered lowlands
 - Solid sided feed wagons can serve as temporary wind protection; place plywood or bales of straw under wagon to block the wind.
- **Winterize any building that may provide shelter for your livestock.**
 - Check roof structure and stability to hold the heavy weight of accumulated snow and ice.
 - Repair any roof leaks.
 - Install storm shutters, doors, and windows.

During a Winter Storm

- **Provide food.**
 - Haul extra feed to feeding areas.
 - Check mechanized feeders in case of power outages; provide for emergency feeding procedures.
 - Provide enough space for all animals to get to the feed.

- **Provide water.**
 - Remove ice buildup around waterers.
 - Use heaters in water tanks.
 - If pipes freeze or power is out you may need to haul water to animals.
- **Provide shelter.**
 - If possible, move animals to an indoor shelter or building, especially the young.
 - Provide additional bedding to keep animals insulated from the ground and keep them dry.
 - Place sand or other non-toxic gritty material on icy feedlots to provide good footing.
 - Ensure heaters are working properly and are located in an area with adequate ventilation.
- **Ensure adequate ventilation in the building.**
 - If mechanically ventilated facilities are not functioning properly, animals could suffocate from lack of oxygen.
 - Open vents to facilitate natural air flow.
 - Clear ice and snow from vents.

After a Winter Storm

- **Animal disposal.**
 - Record any animal deaths.
 - Check with your state or local authorities for proper disposal methods for animal carcasses.
- **Check fences and buildings for damage from downed tree branches, contact with downed power lines, or inoperable electric fencing.**
- **Monitor animals daily for signs of illness dehydration, frostbite or hypothermia.**
 - If any of these conditions are suspected, **SEEK VETERINARY CARE IMMEDIATELY!**

Cold-Related Illnesses

- **Frostbite**
 - Extremities (ears, tail) are particularly subject to frostbite. Male reproductive organs may be affected and impair animal fertility. Frozen or chapped teats will impact milk production.
 - Signs may not be immediately obvious or show for several days and may include white, waxy or pale appearance to affected area, sloughing of freeze-damaged tissue.
- **Hypothermia**
 - Signs: extreme shivering • increased respiration • confused, erratic or clumsy behavior; especially young animals.

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