

# PREPARING FOR WINTER WEATHER

Each year exposure to cold, vehicle accidents caused by wintry roads, and fires caused by the improper use of heaters injure and kill hundreds of people in the United States. Add these to other winter weather hazards and you have a significant threat to health and safety.

## PLAN FOR A WINTER STORM IN ADVANCE

- Develop a Family Disaster Plan with a winter storm-specific section. Learn about your area's winter storm risk and the different risks associated with winter storms.
- 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. "Wind chill" is a calculation of how cold it feels when the effects of wind speed and temperature are combined. A strong wind combined with a temperature of just below freezing can have the same effect as a still air temperature about 35 degrees colder.
- Make sure your snow removal equipment is in good working condition *before* the winter storm season. Equipment should be available for use if needed. Maintain it in good working order.
- Keep your car's gas tank full for emergency use and to keep the fuel line from freezing.
- Discuss with your family what to do if a winter storm WATCH or WARNING is issued. Designate one household member as the winter storm preparedness leader. Have him or her discuss what to do if a winter storm watch or warning is issued. Have another household member state what he or she would do if caught outside or in a vehicle during a winter storm. Everyone should know what to do in case all family members are not together. Discussing winter storms ahead of time helps reduce fear and lets everyone know how to respond during a winter storm.
- Get training. Take an American Red Cross first aid course to learn how to treat exposure to the cold, frostbite, and hypothermia.



## GOING OUTSIDE DURING OR AFTER A WINTER STORM

- The best way to stay safe in a snowstorm is to stay inside. Long periods of exposure to severe cold increase the risk of frostbite or hypothermia. Also, it is easy to become disoriented in blowing snow. If you or your children go outside to play after a snowstorm, dress in many layers and wear a hat and mittens. Many layers of thin clothing are warmer than single layers of thick clothing.
- One of the best ways to stay warm is to wear a hat; most body heat is lost through the top of the head.
- Keep hands and feet warm too. Mittens are warmer than gloves.
- Covering the mouth with a scarf protects lungs from extremely cold air.
- If you start to shiver a lot or get very tired, or if your nose, fingers, toes, or earlobes start to feel numb or turn very pale, come inside right away. These are signs of hypothermia and frostbite. Frostbite is a severe reaction to cold exposure that can cause permanent harm to people. A loss of feeling and a white or pale appearance in fingers, toes, nose, or earlobes are symptoms of frostbite. Hypothermia is a condition brought on when the body temperature drops to less than 95°F. Symptoms of hypothermia include uncontrollable shivering, slow speech, memory lapses, frequent stumbling, drowsiness, and exhaustion. Hypothermia is not always fatal, but for those who survive there are likely to be lasting kidney, liver, and pancreas problems.
- If frostbite or hypothermia is suspected, begin warming the person slowly and seek immediate medical assistance. Warm the person's trunk first. Using your own body heat will help. Arms and legs should be warmed last because stimulation of the limbs can drive cold blood toward the heart and lead to heart failure. Put the person in dry clothing and wrap their entire body in a blanket. Never give a frostbite or hypothermia victim alcohol or something with caffeine in it, like coffee or tea. Caffeine, a stimulant, can cause the heart to beat faster and hasten the effect the cold has on the body. Alcohol, a depressant, can slow the heart and also hasten the ill effects of the cold.
- Keep dry. Change wet clothing frequently to prevent a loss of body heat. Wet clothing loses much of its insulating value and transmits heat rapidly away from the body.
- Stretch before you go out. If you go out to shovel snow, do a few stretching exercises to warm up your body. This will reduce your chances of muscle injury.
- Avoid overexertion, such as shoveling heavy snow, pushing a car, or walking in deep snow. The strain from the cold and the hard labor may cause a heart attack. Sweating could lead to a chill and hypothermia.
- Walk carefully on snowy, icy sidewalks. Slips and falls occur frequently in winter weather, resulting in painful and sometimes disabling injury.
- If you must go out during a winter storm, use public transportation if possible. About 70 percent of winter deaths related to ice and snow occur in automobiles.

## HOW TO PROTECT YOUR PROPERTY

- Make sure your home is properly insulated. If necessary, insulate walls and attic. This will help you to conserve electricity and reduce your home's power demands for heat.
- Caulk and weather-strip doors and windowsills to keep cold air out, allowing the inside temperature to stay warmer longer.
- Install storm windows or cover windows with plastic from the inside. This will provide an extra layer of insulation, keeping more cold air out.

## TO KEEP PIPES FROM FREEZING

- Wrap pipes in insulation or layers of old newspapers. Cover the newspapers with plastic to keep out moisture.
- Let faucets drip a little to avoid freezing.
- Know how to shut off water valves.
- If the pipes freeze, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold (or where the cold was most likely to penetrate). A hand-held hair dryer, used with caution to prevent overheating, also works well.
- Consider storing sufficient heating fuel. Regular fuel sources may be cut off. Be cautious of fire hazards when storing any type of fuel.



## CONSIDER ALTERNATIVE HEATING EQUIPMENT

Fireplace with ample supply of wood

Small, well-vented wood, coal, or camp stove with fuel

Portable space heater or kerosene heater - *Check with your local fire department on the legality of using kerosene heaters in your community. Use only the correct fuel for your unit and follow the manufacturer's instructions. Refuel outdoors only, and only when cool. Keep your kerosene heater at least three feet away from furniture and other flammable objects.*

When using alternative heat from a fireplace, wood stove, space heater, etc., use fire safeguards and ventilate properly. *Fire hazard is greatly increased in the winter because alternate heating sources are used without following proper safety precautions.*

## WHAT TO DO BEFORE A WINTER STORM

- Use a NOAA Weather Radio with a tone-alert feature to keep you informed of watches and warnings issued in your area. The tone alert feature will automatically alert you when a watch or warning is issued.
- Contact your local emergency management office or American Red Cross for information on designated public shelters in case you lose power or heat.

## WHAT TO DO DURING A WINTER STORM WATCH

- Be aware of changing weather conditions. Severe weather can happen quickly. Temperatures may drop rapidly, winds may increase or snow may fall at heavier rates. What is happening where you are may not agree with local forecasts. Listen to a NOAA Weather Radio, or local radio or television stations for updated information. Local authorities will provide you with the best information for your particular situation
- Move animals to sheltered areas. Have a water supply available. Most animal deaths in winter storms are from dehydration.
- *STAY INSIDE and avoid unnecessary travel. Your safest place during a winter storm is indoors.* About 70 percent of winter deaths related to ice and snow occur in automobiles.



## WINTER DRIVING TIPS

- Have your car winterized before the winter storm season. Keeping your car in good condition will decrease your chance of being stranded in cold weather. Have a mechanic check your battery, antifreeze, wipers and windshield washer fluid, ignition system, thermostat, lights, flashing hazard lights, exhaust system, heater, brakes, defroster, and oil level. If necessary, replace existing oil with a winter grade oil. Install good winter tires.
- Make sure the tires have adequate tread. All-weather radials are usually adequate for most winter conditions. However, some jurisdictions require that to drive on their roads, vehicles must be equipped with chains or snow tires with studs.
- If you have a cell phone or two-way radio available for your use, keep the battery charged and keep it with you whenever traveling in winter weather. If you should become stranded, you will be able to call for help, advising rescuers of your location.
- Keep a windshield scraper and small broom in your car for ice and snow removal.

- Put together a separate **DISASTER SUPPLY KIT** for the trunk of each car used by members of your household. If you should become stranded during a winter storm, these items will make you more comfortable until the storm passes:
  - ✓ Blankets or sleeping bags
  - ✓ Rain gear and extra sets of dry clothing, mittens, socks, and a wool cap
  - ✓ Extra newspapers for insulation
  - ✓ Plastic bags for sanitation
  - ✓ Canned fruit, nuts, and high energy munchies
  - ✓ Several bottles of water
  - ✓ Cans of broth or soup, including a manual can opener
  - ✓ A small shovel, a pocketknife, and small tools, such as pliers, a wrench, and screwdriver
  - ✓ A small sack of sand or non-clumping kitty litter will generate temporary traction.
  - ✓ A set of tire chains or traction mats
  - ✓ Jumper cables
  - ✓ A first aid kit and necessary medications
  - ✓ A flashlight with extra batteries
  - ✓ A candle in a metal can or other fireproof container, including matches
  - ✓ Cards, games, and puzzles
  - ✓ A brightly colored cloth to tie to the antenna
- Keep your car's gas tank full for emergency use and to keep the fuel line from freezing
- Plan long trips carefully. Traveling during winter weather can be hazardous. Listen to the radio or call the state highway patrol for the latest road conditions. Plan to travel during daylight and, if possible, take at least one other person.
- 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.
- Be aware of sleet, freezing rain, freezing drizzle, and dense fog, which can make driving very hazardous. The leading cause of death during winter storms is from automobile or other transportation accidents. During winter weather conditions, multiple vehicle accidents are more likely to occur, resulting in injury and death. Avoid driving during sleet, freezing rain, freezing drizzle, and dense fog--these serious conditions are often underestimated.
- ***IF YOU DO GET STUCK: Stay with your vehicle.*** Do not leave the vehicle to search for assistance unless help is visible within 100 yards. Disorientation and confusion come very quickly in blowing snow.
- Occasionally run the engine to keep warm. Experience has shown that running the heater for 10 minutes every hour is enough to keep occupants warm and will reduce the risk of carbon monoxide poisoning and conserve fuel. Be sure to keep the exhaust pipe clear of snow and slightly open a downwind window for ventilation.
- Use newspapers, maps, and even the removable car mats for added insulation. Layering items will help trap more body heat. Watch for signs of frostbite and hypothermia. Severe cold can cause numbness, making you unaware of possible danger. Keep fingers and toes moving for circulation, huddle together, and drink warm broth to reduce risk of further injury.
- Drink fluids to avoid dehydration. Bulky winter clothing can cause you to sweat, but cold dry air will help the sweat evaporate, making you unaware of possible dehydration. Melt snow before using it for drinking water. Eating snow lowers your body temperature, increasing risk from hypothermia.