



EXTREME COLD AND WINTER STORMS/COLD WAVE

*Please note that the foundation messages are included in the previous section: **Key messages for all-hazards household and family disaster planning.** Separate messages are also available for other specific hazards.*

A cold wave is a weather phenomenon that is distinguished by marked cooling of the air, or the invasion of very cold air, over a large area. It can also be a prolonged period of excessively cold weather, which may be accompanied by high winds that cause excessive wind chills, leading to weather that seems even colder than it is. It is marked by a drop of average temperature well above the averages of a region, with effects on human population, crops, properties and services. Cold waves can be preceded or accompanied by significant winter weather events, such as blizzards or ice storms. Other names of a cold wave include cold snap and deep freeze.

Extreme cold can bring winter storms, sleet and freezing rain – presenting risks as staying safe and

warm can become a challenge. Overexposure and overexertion in the cold can cause hypothermia, frostbite and cardiac arrests. During winter storms, icy roads lead to increased vehicular accidents. Many homes may lose power and be too cold, with heating systems not adequately prepared for the weather. Space heaters and fireplaces inside can increase risk of carbon monoxide poisoning and household fires.

Extreme cold and its effects vary by location, but preparedness measures can be taken by all to protect oneself and the household. Below are measures to take into consideration during extreme cold and winter storms.



Assess and plan

Key messages	Context-specific details
Know your area's risks for extreme weather conditions	<ul style="list-style-type: none"> • Know the local weather patterns and terrain to better understand the risks. • Find out about communication channels for early warning of extreme cold and winter storms in your community. • Consider risk factors such as proximity to rivers, lakes, and water channels that may be at risk of ice or flooding.
Know your nearest points of medical support	<ul style="list-style-type: none"> • Be aware of hospitals and medical centres nearby in case at risk of hypothermia or frostbite.
Prepare warning mechanisms with community	<ul style="list-style-type: none"> • Involve youth and volunteers to support with extra care and activities in communities. • Instruct health workers and community members in the specific risks of extreme cold and winter storms, and train them to respond quickly.
Know the risks and plan for cold weather effects on crops and livestock	<ul style="list-style-type: none"> • Freezing weather can damage or kill produce, including livestock. • Freezes and effects are significant; understand the risks and tolerance of each livestock and plant species to cold temperatures and water access.



Mitigate risks: physical or environmental

Key messages	Context-specific details
Prepare home supplies keeping winter storms in mind	<ul style="list-style-type: none"> • Primary concerns during a winter storm are loss of heat, power, telephone service, and a shortage of supplies. • Have bottled water available in case pipes freeze and stock up with several days of food supplies when a snowstorm is expected. • Keep a flashlight, extra batteries, and a portable radio available. • Have an emergency heat source such as fireplace, wood stove, or space heater that is properly ventilated. • Review your generator safety. Never operate it in an enclosed space. • Make sure your carbon dioxide detector is working and that the outside vent is clear.
Prepare your vehicle for winter	<ul style="list-style-type: none"> • Equip your vehicle's tires in preparation of snow and icy road conditions. • Build an emergency supply for your car that includes jumper cables, a first aid kit, cell phone charger, flashlight, warm clothing items, snow shovel and brush, and a spare tire. • Make sure your vehicle has a full tank of gas.
Be aware of groups at risk	<ul style="list-style-type: none"> • Assist older people and those who are weak. • Have a plan and shelter in place to protect your animals; haul extra feed near animals. Have water available, as animals are at risk of dehydration during winter storms.



Prepare to respond: develop skills and store provisions

Key messages	Context-specific details
Stay informed: monitor weather, listen to the radio and follow instructions	<ul style="list-style-type: none"> Monitor the weather closely to see if extreme cold weather conditions, a winter storm watch or a winter storm warning is issued in your area.
Stay hydrated	<ul style="list-style-type: none"> Drink plenty of warm fluids to help keep your body warm. Avoid alcohol.
Protect yourself with appropriate clothing and cover exposed skin	<ul style="list-style-type: none"> Wear clothing appropriate for cold weather. Synthetic and wool fabrics provide better insulation, as some synthetics are designed to keep perspiration away from your body and keep you dry. Dress in layers with a wind resistant outer layer. Wear warm socks, gloves, a hat and a scarf. Be sure to cover your nose to protect it. If you get wet, change into dry clothing as soon as possible. You lose heat faster when you are wet.
Be aware of the symptoms of cold-induced sickness	<ul style="list-style-type: none"> Seek medical help if symptoms of hypothermia or frostbite occur. Avoid overexertion (which can cause cardiac arrest), often caused by clearing the snow. Avoid exposure to extreme cold and snow. Stay hydrated.
Stay aware of people at risk around you	<ul style="list-style-type: none"> Check on family, friends and neighbours who are more likely to be vulnerable to extreme cold. Stimulate solidarity and ask people to reach out proactively to support elderly, chronically ill during the cold (family, neighbours, friends).

Protect your pets and livestock	<ul style="list-style-type: none"> • Make sure your pets and livestock or farm animals have plenty of food and water and are not overly exposed to extreme cold.
Seek shelter immediately	<ul style="list-style-type: none"> • Avoid driving if possible. • Avoid exposure to extreme cold and snow.
Protect your home and use appropriate supplies	<ul style="list-style-type: none"> • Running water, even a trickle, can help prevent pipes from freezing. • Do not use alternative heating sources inside your home, i.e. a generator. • Do not use heating and cooking devices intended for outdoor use that are not designed with ventilation.
During a winter storm, if you are in a vehicle, avoid unsafe conditions	<ul style="list-style-type: none"> • Avoid travelling alone and at night. • If trapped, remain inside the vehicle. • Drive slowly in the snow, as ice can be difficult to see.
Be aware of ice safety on ponds and lakes	<ul style="list-style-type: none"> • Always check the thickness and colour of ice – grey indicates the ice is not thick enough. • Ice should be a clear blue (>12 cm thick) before its considered safe to step on.
Be aware of dangers following the storm	<ul style="list-style-type: none"> • After a storm, be aware of power outages. • Flooding caused by snow melting; drive safely if on the road. • Check pipes since these may be frozen, as water expands when it freezes and can cause pipes to burst. • Salt walkways if possible and shovel snow from your sidewalks to reduce risk of injury from slipping on ice.