



Emergency and Continuity Management

Extreme Weather Guideline- Extreme Cold

Cold Weather and Your Health

Manitoba winters can be very cold and sometimes unpredictable. Exposure to colder temperatures can be a health concern. During the winter it's important to dress appropriately for weather conditions and to be prepared for weather events like winter storms and cold temperatures.

How can cold weather affect my health?

Exposure to cold can be uncomfortable, but it can also result in more serious health problems such as *frostbite* or *hypothermia*, which can be life-threatening.

It is not uncommon for people in colder temperatures to experience *frostnip* on a part of their body that has been exposed to cold. *Frostnip* is a mild form of frostbite, where only the skin freezes. Skin may appear yellowish or white, but feels soft to the touch. People may experience tingling or a burning sensation in the area that has been exposed.

In more severe cases or if exposure is prolonged, both the skin and body tissue freeze. When this happens *frostbite* has set in, and there is permanent damage to the affected area. People with *frostbite* may experience a loss of feeling in the affected area or limb. They may also have white, gray or blistered fingers, toes, ear lobes or nose tip.

Exposure to cold can also cause *hypothermia* - a life-threatening condition that requires immediate medical attention. *Hypothermia* occurs when your body loses heat faster than it can produce it, causing a dangerously low body temperature. Normal body temperature is around 37 C (98.6 F). *Hypothermia* occurs as your body temperature passes below 35 C (95 F).

People with *hypothermia* may experience uncontrollable shivering, drowsiness or exhaustion, confusion, fumbling hands, memory loss, or slurred speech. Infants may have very low energy and bright red cold skin. A person with severe *hypothermia* may be unconscious and may not seem to have a pulse or to be breathing.

Who is most at risk from cold weather?

Anyone who isn't dressed for weather conditions is at risk from cold weather. However, the elderly, infants and children, people with chronic medical conditions, newcomers to Canada, people who are experiencing homelessness, people living in homes that are poorly insulated, and outdoor workers and outdoor sports enthusiasts may be at increased risk of *frostbite* and *hypothermia*.

What should I do if I think someone has *frostnip* or *frostbite*?

If you or someone you know has *frostnip* it's important to remove the person from the cold to avoid *frostbite*. Warm the area gradually using body heat or warm water. Once the area is warmed up don't re-expose it to the cold.

If you think you or someone you know has *frostbite*, it's important to get medical help immediately. Keep the person warm and dry and apply warm water to the frostbitten area(s). Cover exposed skin.

If someone has *frostnip* or *frostbite* avoid rubbing or massaging the area or exposing it to direct heat as this can damage the skin.

What should I do if someone has *hypothermia*?

If you think someone may have *hypothermia*, it's important to get medical help immediately by calling 911 - especially if their temperature is below 35 C (95 F).

While you are waiting, get the person to a warm location if you can. Remove any wet clothing. Warm the centre of their body first - chest, neck, head and groin-using an electric blanket (if available) or skin-to-skin contact under a layer of dry blankets, clothing or other covering. Give warm, non-alcoholic beverages if they are conscious. Keep the person wrapped in a warm dry blanket, even if their body temperature begins to rise. Be sure to handle the person gently.

What can I do to protect myself and others?

Be prepared for cold weather

- Have necessary safety items and supplies on hand at home or when you travel. During emergencies stores might limit store purchases or stores may be closed.
- Check weather forecasts often and stay alert for weather watches and warnings.
- Have a plan for power outages during the winter season. [Manitoba Hydro](#) has information on how to be prepared for power outages.
- Keep an emergency kit at home in case of bad weather or a power outage. For more information on preparing an emergency kit, visit: <https://www.getprepared.gc.ca/index-en.aspx>
- Be aware of the signs of *frostbite* and *hypothermia*, and who to call if you need help.

- Make a plan, so that family members know how to contact each other in case of an emergency situation.
- Plan to regularly check on older or vulnerable neighbors or relatives to make sure that they have adequate food, clothing and heat during the colder months of the year. Contact people by phone or virtually where possible to reduce close contact and face-to-face interactions.
- Prepare your home for winter weather by checking to make sure your home heating system is well maintained and working properly. Always keep your thermostat at 12 C (55 F) or higher, even if you are away. Temperatures lower than 12 C can result in frozen pipes. Many municipal websites have information on how to prevent your water pipes from freezing, even if you are unable to heat your home. Keeping walls and attics well insulated, using caulking and weather-stripping on doors and windows, and installing storm windows or covering your windows with clear plastic can also help to keep the heat in your home.
- Check road conditions before you go out by calling Manitoba Highways at 511 or visiting www.manitoba511.ca/en/
- Winterize your vehicle by keeping your gas tank full, using winter tires and keeping a well-stocked winter safety kit in your car. For more information on preparing a winter car kit, visit: www.getprepared.gc.ca/cnt/rsrscs/sfttps/tp201012-en.aspx

Take action to stay warm

- Take extra care while enjoying the outdoors during the winter. Dress in layers of warm, dry clothing. Wearing winter boots with good foot traction, a lined coat, mitts or gloves, a warm hat that covers your ears and scarf or neck warmer that can cover your nose will help keep you warm and protect exposed skin from *frostbite*. Keep your home warm with a properly installed and maintained heat source. If you are unable to heat your home due to a power outage or other issue during the winter:
- Dress in layers, as you would if you were outdoors.
- Cover yourself with a blanket and put your feet up if you can. The air is colder near the floor.
- Keep moving if you can. Try not to sit for more than an hour. Get up and walk around, make a hot drink. If walking is a problem try moving your arms and legs, while sitting or wiggling your fingers and toes.
- Consider staying with a friend or family member if you can. Find out if your community has a plan for warming shelters and how they can be accessed.

Take precautions to stay safe

- Enjoy the outdoors, but don't overdo it. Older adults and very young children should avoid prolonged outdoor exposure.
- Pay attention to your body. Be aware of the signs of *frostbite* and *hypothermia* and don't ignore shivering. It is the first sign the body is losing heat. Persistent shivering is a signal to seek warmth.
- Be cautious of snow and ice while walking to avoid falls. Consider using sand or an ice-melter/de-icer on walkways around your home to avoid slippery conditions.
- Be fire safe. Never leave a fire or portable heat source unattended, check your smoke alarms regularly, and have a fire extinguisher nearby if possible. Never use your range or oven to heat your home, and make sure you only use the recommended type of fuel for portable heaters, as using the wrong fuel can cause an explosion. Avoid burning paper, green wood or pine branches, as kindling can float up and cause a roof to catch fire.
- Take action to prevent carbon monoxide poisoning. Have a properly installed carbon monoxide detector in your home and make sure to properly maintain any fuel burning equipment such as furnaces, water heaters, boilers, stoves and other appliances that run on fuels such as wood, oil, propane or natural gas. For more information on carbon monoxide and steps you can take to protect yourself and others please see [Carbon Monoxide and Other Gases](#).
- Avoid driving or traveling by car in bad weather or when roads are very slippery.
- Stick to an approved path when participating in outdoor activities. This will help to avoid unsafe areas, such as thin ice, or other hazards.
- With winter activities it is often good to have a buddy with you because, in an emergency, another person can offer immediate assistance.
- Avoid consuming alcohol before going out in the cold. Alcohol can increase your risk of *hypothermia* because it increases blood flow to the extremities of the body. You may actually feel warm even though you are losing heat.
- Never leave infants and young children unattended, and make sure they are dressed for weather conditions.
- Bring house pets inside during extreme cold conditions. Move other animals or livestock to sheltered areas with non-frozen drinking water.

When working in cold conditions, Manitoba workers can be challenged in a number of ways. For more information on working in cold weather visit Safe Manitoba's [Working in Cold Weather](#).

Where can I get more information?

- [Manitoba Government – Fall and Winter Safety](#)
- [Health Canada: Extreme Cold](#)
- [Working in Cold Weather Tip Card](#)
- [Get Prepared: Safety Tip – Winter Safety Indoors and Out](#)
- [Environment Canada – Windchill](#)
- [Environment Canada – Weather Information](#)
- [Manitoba Highways](#)
- [Manitoba Hydro – Be Prepared for a Power Outage](#)