

# STAYING SAFE AND WARM IN WINTER



Living in a cold country can be hazardous to your health. Each year in Canada, more than 80 people die from over-exposure to the cold, and many more suffer injuries resulting from hypothermia and frostbite. Wind chill can play a significant role in such health hazards because it speeds up the rate at which your body loses heat.

## TIPS FOR COLD WEATHER SAFETY

### Dress Warmly

- Dress in layers with a wind-resistant outer layer
- When it is cold, wear a hat, gloves and a scarf
- Wear warm and waterproof footwear
- Cover up exposed areas such as your fingers, cheeks, ears, and nose.
- Bring additional warm clothing for extended periods or in an emergency.

### Listen to the Weather Forecast

- Check the weather forecast before going outside
- Listen for a wind chill warning

### Be Aware

- Watch for signs of frostnip, frostbite and hypothermia
- Some people, such as children and elders, are more susceptible to the cold.

### Seek Shelter

- Get out of the wind and limit the time you spend outdoors.
- Seek shelter from the wind if you are getting cold, even if it is only behind a tree, hill, embankment, or other landscape feature.

### Stay Dry

- Wet clothing chills the body rapidly
- Remove outer layers of clothing or open your coat if you are sweating
- If your clothes get wet in the cold, change into dry clothes immediately.

### Eat Healthy

- Drink plenty of warm fluids to help your body stay warm and hydrated, and avoid caffeine and alcohol.
- Eat high-calorie food and drinks regularly as the body converts food to energy, which heats the body.

# STAYING SAFE AND WARM IN WINTER



Exposure to the cold can be hazardous or even life-threatening. Your body's extremities, such as the ears, nose, fingers and toes, lose heat the fastest. Exposed skin may freeze, causing frostnip or frostbite. In extreme conditions or after prolonged exposure to the cold, the body core can also lose heat, resulting in hypothermia

## Hypothermia

- Being cold over a prolonged period can cause a drop in body temperature below the average 37 C
- Shivering, confusion and difficulty moving can occur
- It can progress to a life-threatening condition where shivering stops or the person loses consciousness. Cardiac arrest may occur.

## What to Do:

- Get medical help immediately. Call 911
- Get the person indoors
- Lay the person down and avoid rough handling
- Gently remove wet clothing
- Warm the person gradually and slowly

## Frostnip

- A mild form of frostbite where only the skin freezes
- Skin appears yellowish or white but soft to the touch
- Painful tingling or burning sensation

## What to do:

- Do NOT rub or massage the area
- Warm the area gradually, using body heat or warm water. Avoid direct heat
- Once the affected area is warm, do not re-expose it to the cold

## Frostbite

- A more severe condition where both the skin and the underlying tissues (fat, muscle, bone) are frozen.
- Skin appears white, waxy and is hard to the touch
- The area is numb, with no sensation

## What to do:

- Frostbite can be severe and can result in amputation. Get medical help immediately. Call 911.
- Do NOT rub or massage the area
- Do NOT warm the area until you can ensure it will stay warm
- Warm the area gradually, using body heat or warm water. Avoid direct heat

# WINTER STORMS



Winter storms include heavy snowfalls, ice storms, and blizzards with high winds and blowing snow. These storms can cause power outages that last for days. Additionally, these storms can make roads impassable.

Often accompanied by extreme cold, these storms can create dangerous conditions, particularly for people with vulnerabilities and health issues.

The our area is at the highest risk for winter storms between November and April.



## STAYING SAFE

- Avoid going outside or unnecessary travel.
- If you must go outside, dress appropriately to protect yourself from the elements. Watch for signs of frostbite and hypothermia.
- Use the “buddy” system - bring someone outside with you.
- Bring pets and other animals indoors.
- Be careful when clearing snow. Take your time and avoid overexertion. Take regular breaks to warm up and rest if needed.
- Be aware of the wind chill. Avoid unnecessary exposure of any part of the body to the cold.
- Listen to local news and weather reports for current road and weather conditions

## BE PREPARED

- Buy rock salt and sand to melt ice and improve traction.
- Have shovels and snow removal equipment handy.
- Have a fireplace, wood-burning stove, or generator to keep one room in your home warm and liveable in the event of a power outage.
- Make a 72-hour emergency kit. Resupply as needed.
- Be prepared for other hazards, such as power outages and closed roads
- Install snow fences to reduce drifting snow on roads and paths.
- Prepare your vehicle for winter weather by creating a roadside emergency kit.

## STORM DANGERS

- Winter storms also create many personal health risks, including:
  - Cold weather injuries such as frostbite or hypothermia
  - Personal injuries from slipping, falling, or vehicle accidents
  - Heart conditions from overexertion, such as from shoveling snow
- Power outages often occur during winter storms and create additional risks, including:
  - Carbon monoxide poisoning from fuel burning equipment such as camping stoves, gas powered vehicles, and generators
- Exposure to extreme cold conditions and the negative health effects

# WINDCHILL HAZARDS

WIND CHILL	EXPOSURE RISK	HEALTH CONCERNS	WHAT TO DO
0 to -9	LOW	<ul style="list-style-type: none"> <li>Slight discomfort</li> <li>Risk of hypothermia and frostbite if outside for long periods without adequate clothing or shelter</li> </ul>	<ul style="list-style-type: none"> <li>Dress warmly in layers</li> <li>Stay dry</li> <li>Keep active</li> <li>Cover exposed skin</li> </ul>
-10 to -27	MODERATE	<ul style="list-style-type: none"> <li>Very high risk of frost bite: Check face and extremities frequently for numbness or whiteness</li> <li>Very high risk of hypothermia if outside for long periods without adequate clothing or shelter</li> </ul>	<ul style="list-style-type: none"> <li>Dress warmly in layers, with an outer layer that is wind-resistant</li> <li>Wear insulated, waterproof footwear</li> <li>Stay dry</li> <li>Keep active</li> <li>Cover ALL exposed skin</li> <li>Be ready to cut short or cancel outdoor activities</li> </ul>
-28 to -39	HIGH: exposed skin can freeze in 10 to 30 minutes	<ul style="list-style-type: none"> <li>Very high risk of frost bite: Check face and extremities frequently for numbness or whiteness</li> <li>Very high risk of hypothermia if outside for long periods without adequate clothing or shelter</li> </ul>	<ul style="list-style-type: none"> <li>Dress warmly in layers, with an outer layer that is wind-resistant</li> <li>Wear insulated, waterproof footwear</li> <li>Stay dry</li> <li>Keep active</li> <li>Cover ALL exposed skin</li> <li>Be ready to cut short or cancel outdoor activities</li> </ul>
-40 to -47	VERY HIGH: exposed skin can freeze in 5 to 10 minutes	<ul style="list-style-type: none"> <li>Very high risk of frost bite: Check face and extremities frequently for numbness or whiteness</li> <li>Very high risk of hypothermia if outside for long periods without adequate clothing or shelter</li> </ul>	<ul style="list-style-type: none"> <li>Dress warmly in layers, with an outer layer that is wind-resistant</li> <li>Wear insulated, waterproof footwear</li> <li>Stay dry</li> <li>Keep active</li> <li>Cover ALL exposed skin</li> <li>Be ready to cut short or cancel outdoor activities</li> </ul>
-48 to -54	SEVERE: exposed skin can freeze in 2 to 5 minutes	<ul style="list-style-type: none"> <li>Very high risk of frost bite: Check face and extremities frequently for numbness or whiteness</li> <li>Very high risk of hypothermia if outside for long periods without adequate clothing or shelter</li> </ul>	<ul style="list-style-type: none"> <li>Dress warmly in layers, with an outer layer that is wind-resistant</li> <li>Wear insulated, waterproof footwear</li> <li>Stay dry</li> <li>Keep active</li> <li>Cover ALL exposed skin</li> <li>Be ready to cut short or cancel outdoor activities</li> </ul>
-55 and colder	EXTREME: exposed skin can freeze in less than 2 minutes	<p><b>DANGER!</b></p> <ul style="list-style-type: none"> <li>Outdoor conditions are hazardous</li> </ul>	<ul style="list-style-type: none"> <li>Stay indoors</li> </ul>

Note: In sustained winds over 50 km/h, frostbite can occur faster than indicated

# WINTER WEATHER DRIVING SAFETY



The roads are dangerous on even most days, but in the winter, the dangers of driving can increase dramatically. According to the US Department of Transportation, winter weather conditions are responsible for over 192,000 injuries and 2,200 deaths yearly. Outside injury and loss of life, winter weather conditions are responsible for millions of dollars in property damage incidents.



## WINTER DRIVING CHALLENGES

While most of the population has experienced driving in snowy or icy conditions, many individuals do not know how to drive safely in winter weather conditions. The hazards created by winter weather make it hard for even the most experienced drivers to operate a vehicle safely.

The best way to avoid an accident during the winter months is to avoid driving in dangerous conditions. If you absolutely have to drive in bad weather conditions, travel main roads that have already been plowed and salted. Notify your supervisor if necessary to alert him or her you will be late for work due to road conditions. Take your time getting to your destination.

## TIPS FOR AVOIDING A WINTER WEATHER-RELATED ACCIDENT

- Monitor weather for any incoming snow storms or icy conditions and plan your travel around those conditions. Do not put yourself in a situation where you are stuck on a roadside.
- Do not drive in wintry conditions if possible. Eliminating driving eliminates your chances of being in an accident.



- Be a defensive driver. Stay clear of other drivers and maintain a safe distance in case you need to brake or turn to avoid an accident.
- Slow down. Winter weather conditions necessitate having to reduce your speed. Reducing your speed will give you more time to react as well as help to avoid losing control of your vehicle.

# SHOVELLING SNOW SAFELY



Winter weather brings many hazards for those who have to experience it where they live and work. Whether driving in poor conditions or clearing snow, any task done in winter weather conditions often results in a higher chance of injury. One winter weather work task that can easily result in injury is shovelling snow.

## SNOW SHOVELLING INJURIES

Shoveling snow is a straightforward process, but it is a work task that often ends in injury both on the job and at home.

The most common injuries are:

- Overworking your muscles
- Lower back injuries
- Being hit with the shovel
- Slips, Trips & Falls
- Cuts & Broken Bones

Heart-related problems made up only 7% of snow shoveling injuries. However, all deaths due to snow shoveling were caused by **heart problems**. Adults over 55 were over four times more likely than younger people to have heart-related symptoms while shoveling.

## BEST PRACTICES TO AVOID INJURY WHILE SHOVELING SNOW

- Prior to considering shoveling as your only option, consider mechanical methods to clear snow, such as a [vehicle](#) with a plow or snow-blower.
- If you do have to shovel, take time to warm up or properly stretch prior to starting.
- Do not overexert yourself.
- Use proper work posture when shoveling. Avoid actions such as rounding your back or twisting when lifting.
- Always lift with your legs and not with your back.
- When possible, push the snow out of the way to limit lifting and throwing the snow.
- Use an ergonomically friendly snow shovel. While the overall design of snow shovels is basically the same, there are many that have been designed with the human body in mind.
- Watch your step and ensure you are wearing the proper footwear for the task. Preventing slips, trips, and falls in winter weather conditions can be extremely difficult to do. Having the proper footwear and taking your time while walking can reduce the chance of these incidents occurring.





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