Stay well back to help snowplows do their job.

**Adjusting to Winter Conditions**

Ontario winters are challenging for motorists. They are equally challenging for Ministry of Transportation staff and contractors responsible for snow and ice control on our provincial highways.

Road user safety is a top priority of the Ministry of Transportation and every effort is made to promote safe highways and to provide an efficient winter maintenance service for the public.
However, weather conditions can be variable and unpredictable, placing extra demands on your vehicle and your driving skills. Take the time to ensure you are well prepared for winter roads and always adjust your speed to existing conditions.

**Leaving Room for the Plows**

To do the job right, snowplows and salt and sand trucks must travel more slowly than regular traffic. Sight lines and visibility near a working snowplow are severely restricted by blowing snow, and passing can be dangerous. When you see the flashing blue lights of these vehicles, remain at a safe distance.

**Plowing**

Echelon plowing is the practice of staggered snowplows operating across all lanes of a roadway. Though sometimes annoying to drivers, it is often the safest and most efficient snow removal method for multi-lane highways. Plowing in echelon clears all lanes at once by passing a ridge of snow from one plow to the next. It is extremely dangerous to pass either between or around these snowplows because of whiteout conditions and the ridge of snow being passed between plows.

**DID YOU KNOW . . .**

For effective operations, snowplows and salt or sand spreaders must travel at speeds considerably slower than the maximum speeds posted for highways. Please be patient and stay well back while snow and ice control crews are at work.
Sand and salt play a big role in keeping roads safe.

**Melting Snow and Ice**

Road salt is among the most effective snow and ice control materials available. Timely application of salt will prevent snow and ice from bonding to the road surface. For this reason, salt is often spread early in a storm to prevent snow buildup and to aid in snow removal operations. In some areas, liquid anti-icing material is applied directly to the pavement to prevent frost and black ice.

Road salt, assisted by sun, traffic and warmer daytime temperatures, is also used as a melting agent to eliminate ice or packed snow. You may notice that salt is often applied in a narrow strip along the centre or high point of the highway. This provides a salt-water mixture which flows across the roadway, ensuring the most efficient and effective use of the material.

The Ministry of Transportation recognizes the importance of effective salt management and employs the most up-to-date practices available. The ministry continues to investigate ways to control and reduce salt usage, while ensuring highway safety.

**Providing Traction**
Sand is useful to provide traction on slippery surfaces. Unlike salt, it does not melt snow and ice.

Sand is used most often when temperatures are too low for salt to be effective. Sand is also used at higher temperatures if traction is required immediately, particularly on hills, curves, bridges, intersections and on snow-packed roads. Extra caution should be exercised when driving in these road conditions.

DID YOU KNOW . . .
The effectiveness of road salt is greatly reduced when temperatures fall lower than -12° C. This is why bare pavement is hard to achieve below -12° C.

Traffic volumes and road type determine how quickly highways are serviced.

Snow & Ice Control Standards

Ontario’s snow and ice control standards are consistent with the best practices used across North America. Traffic volumes and road type determine how quickly highways are serviced.
A severe or long storm may delay restoration to normal conditions, even with the best efforts of crews.

With the onset of a storm, plowing commences promptly and priority is given to the main lanes on highways. It may take up to eight hours for plows or sanders to reach all ramps and low-volume roads.

Snow and ice control standards indicate a specified time for roadways to be restored to normal conditions after a storm has ended. Depending on traffic volume and road type, the standard varies. For example, the standard is eight hours for freeways. Some roads with the lowest volumes are maintained in snow-packed conditions throughout the winter.

**Technological Improvements**

The Ministry of Transportation is continually working on improvements in snow and ice control operations and on safe ways to reduce salt usage. Some technologies currently in use are:

- De-icing liquids added to road salt to melt ice and snow faster. “Pre-wetted” salt also tends to stay on the road better and works at lower temperatures than dry salt alone.
- Road and weather information sensors to help staff and contractors make the best and most timely decisions on how to deal with winter conditions.
- Stationary automated anti-icing systems to prevent slippery conditions on selected bridges.
- Electronic control equipment for spreading salt and sand to ensure the correct amount is distributed.
- Real-time vehicle location systems to manage winter snow and ice control.

**Contracting of Snow & Ice Control Services**

The Ministry of Transportation contracts out its snow and ice control services, but sets the standards used by contractors. The ministry also monitors operations before, during and after winter storms. Contractors are closely scrutinized for compliance to standards. Penalties for noncompliance are severe, including loss of contract.
DID YOU KNOW . . .
The police have the authority to close highways. Sometimes the safest and best action is to close a highway until weather conditions improve enough to allow snow control operations to be carried out.

Check conditions and exercise caution.

Changing Road Conditions

Throughout the winter maintenance crews monitor weather and road conditions day and night, seven days a week. The crews update highway conditions a minimum of four times daily, and as highway closures occur and conditions change. Despite the best efforts of snow and ice control crews, extreme weather may prevent the roads from being cleared quickly.

Road Closures

Extreme weather may result in the closing of roads. Respect road closures and do not attempt to drive on these roads until re-opened. Always obey emergency road closing signs/barriers and follow the directions of any police officer. It’s for your safety. Remember, it is against the law to drive on a closed highway.

Emergency Vehicles
Every day, police, fire, ambulance and other emergency vehicles respond to urgent calls. Time lost getting to their destination could mean the difference between life and death. Seconds can save a life. Take lights and sirens seriously. Clear the way. Pull to the right and stop. It’s the law.

Road-Ready and Weather-Wise

- Listen to the radio for road and weather updates and check conditions before leaving.
- Plan extra time to get to your destination and consider delaying your trip in bad weather.
- Always exercise caution and drive according to conditions.
- Watch for the flashing blue lights of snow and ice control vehicles. When approaching them from behind, slow down, stay back and be patient. Do not pass around them or between them.

For road condition information, call:

MTO INFO Call Centre: 1-800-268-4686 or 416-235-4686 in the Greater Toronto Area
TTY (Teletypewriter users): 1-866-471-8929 or 905-704-2426 in the Niagara Region

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See also:
- Winter Driving - Be Prepared, Be Safe!
- When visibility turns bad ...driving in blowing snow and whiteouts
- Winter Road Condition Reports
Consider using winter tires.

Driving and Winter

Stay alert, slow down and stay in control — the three key elements to safe winter driving. Drive according to current road and weather conditions. Keep a safe distance between you and the vehicle in front of you. Avoid situations where you may have to brake suddenly on a slippery surface.
Be Prepared — Driver’s Checklist

Get your vehicle winter-ready with a **maintenance check-up**. Don’t wait for winter to set in to have your battery, belts and hoses, radiator, oil, lights, brakes, exhaust system, heater/defroster, wipers and ignition system checked.

The condition of your vehicle’s tires is important. Worn and damaged tires pose a serious problem to driving safety. Have them checked or replaced before winter begins. Also, remember to check tire air pressure frequently as it decreases in colder weather.

While regular or “all-season” tires, including wide and high-performance tires, may be adequate in some areas, they may not be suitable for driving in the snowbelt regions of southern Ontario and throughout the north. If you live and drive in these areas, consider using **winter tires**. They improve driving safety by providing better traction and handling through snow, slush and on ice. Installing four winter tires provides even greater control and stability. Never mix tires of different tread, size and construction.

**Check weather and travel conditions** before heading out. Don’t take chances if the weather is bad. Give yourself extra time for travel, or wait until conditions improve. Call the Ministry of Transportation’s information number on road conditions, listed in your local phone directory, or see the online **Winter Road Condition Reports**.

If you are traveling a long distance, **plan your route** ahead of time. Let someone know of your destination and expected time of arrival.

**Wear comfortable clothing** that doesn’t restrict your movement while at the wheel. Keep warm clothing for getting out of your vehicle.

**Clear snow and ice** from all windows, lights, mirrors and the roof. After starting your vehicle, wait for the interior of the windows to clear of fog so you will have good visibility all around.

Make sure your vehicle is **mechanically ready** for the rigours of winter and keep your **gas** tank sufficiently full — at least a half of a tank is recommended.
Make sure you have sufficient **windshield washer fluid** in the reservoir and that it is rated in the -40°C temperature range. Keep an extra jug in the vehicle.

If you are in an area with **cell phone** service and have a cell phone, use it only when necessary. When you need help, pull well off the road to make or receive a call. **Remember, dialing *OPP will connect you to the nearest Ontario Provincial Police communications centre.**

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**PLAY IT SAFE!**

Severe winter driving conditions may make you nervous, uncomfortable or fearful. Unless your trip is absolutely necessary, stay off the road. Proper preparation and the right skills will help you face the challenge of winter driving.

Stay alert, slow down and stay in control.

**On The Road**

**Visibility**

It’s critical for drivers to see and be seen in low light conditions, and when blowing snow and white-outs impair your visibility. Turn on your vehicle’s full lighting system in poor visibility.

**Spacing**

It takes longer to stop on a slippery road. It’s important to leave plenty of space between you and the vehicle ahead.
A guide to safe spacing under normal driving conditions is the two-second rule. In winter, and especially during poor weather conditions, double the two-second rule.

Two second rule:

1. Pick a marker on the road ahead, such as a road sign or telephone pole.
2. When the rear of the vehicle ahead passes the marker, count "one thousand and one, one thousand and two."
3. When the front of your vehicle reaches the marker, stop counting. If you reach the marker before you count "one thousand and two," you are following too closely.

**Braking**

Make sure you know how to use your braking system in all weather and road conditions. Consider taking an advanced driving course that teaches emergency driving skills.

**Skidding**

In a skid, it’s important to regain control of your vehicle, especially if it skids sideways. To do this, decelerate by taking your foot off the brake, step on the clutch or shift to neutral, then look where you want your vehicle to go and steer in that direction.

**Snowy Roads**

Snow on a road may be hard-packed and slippery as ice. It can also be rutted, and full of hard tracks and gullies. Or, it can be smooth and soft. Wet snow can make for slushy roads. Heavy slush can build up in the wheel wells of your vehicle, and can affect your ability to steer. Remember, look far ahead as you drive, so you can recognize hazards and other situations for which you will have plenty of time to respond. Adjust your driving to the road and weather conditions. Slow down and avoid sudden turns of the steering wheel, and sudden braking and accelerating that could cause a skid.

**Ice**
Be careful when approaching shaded areas, bridges and overpasses, as these sections of road freeze much sooner in cold weather and stay frozen long after the sun has risen. Watch out for black ice — areas of the road that appear black and shiny, and where your vehicle can lose traction suddenly. Slow down, keep your foot off the brake and be ready to shift to neutral or step on the clutch as your vehicle crosses these areas.

**TAKE TIME**

To ensure you are prepared to handle winter road conditions consider an advanced driver-training course that teaches emergency driving skills.

Know what to do if it happens to you.

**The Unexpected**

If you get stuck or stranded, don’t panic. Stay with your vehicle for safety and warmth. Wait for help to arrive. If you are in an area with cell phone service and have a cell phone, call for help. Remember, dialing *OPP will connect you to the nearest Ontario Provincial Police communications centre.

Be careful if you have to get out of your vehicle when on the shoulder of a busy road. If possible, use the door away from traffic.

If you attempt to free your vehicle from the snow, be careful. Dress warmly, shovel slowly and do not overexert yourself. Do not attempt to shovel or push your vehicle if you have a medical condition. Body heat is retained when clothing is kept dry. Wet clothing, due to
the weather or perspiration, can lead to a dangerous loss of body heat.

Draw attention to your vehicle. Use emergency flashers, flares or a Call Police sign. Run your motor sparingly. Be careful of exhaust fumes. For fresh air, slightly open a window away from the wind. You may have to exit your vehicle occasionally to make sure the exhaust pipe is clear of drifting snow before running the engine.

**Winter Driving Survival Kit**

It’s a good thing to keep a winter survival kit in your vehicle. Having essential supplies can provide some comfort and safety for you and your passengers should you become stranded. Recommended items:

- Ice scraper/snowbrush
- Shovel
- Sand or other traction aid
- Tow rope or chain
- Booster cables
- Road flares or warning lights
- Gas line antifreeze
- Flashlight and batteries
- First aid kit
- Fire extinguisher
- Small tool kit
- Extra clothing and footwear
- Blanket
- Non-perishable energy foods – e.g., chocolate or granola bars, juice, instant coffee, tea, soup, bottled water
- Candle and a small tin can
- Matches
- Extra clothing and footwear
- Blanket
- Non-perishable energy foods – e.g., chocolate or granola bars, juice, instant coffee, tea, soup, bottled water
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- Matches

In blizzard conditions, especially overnight, make sure one person stays awake as help could take some time to arrive. Maintain circulation by moving your feet, hands and arms.

**DID YOU KNOW . . .**

Alcohol is not a good survival item and should never be part of your survival kit. And remember: Never drink and drive!

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See also:

- [Snow and Ice Control on Ontario's Highways](#)
- [When visibility turns bad ...driving in blowing snow and whiteouts](#)
- [Winter Road Condition Reports](#)