



## OSH Answers

### ▶ Safety Hazards

#### **Driving Tips - Winter**

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#### **What makes the difference between an ordinary driver and a good one?**

- An ordinary driver reacts to the road situations.
- A good driver anticipates crises and avoids them.



#### **How should you prepare a vehicle for driving under winter conditions?**

Driving in winter weather -- snow, ice, wet and cold -- creates a great challenge for vehicles and drivers. Keeping your vehicle in good technical repair reduces your overall chances for any mishap or disaster while driving -- particularly in winter weather. To prepare your vehicle for winter driving give it a complete checkup. Look for the following:

##### **Electrical system**

- Battery -- recharge or replace if the battery is weak. Also have the charging system checked.
- Ignition -- check for damaged ignition wires and cracks in the distributor cap.
- Lights -- check all lights (headlights, side lights, emergency flashers, directional lights, taillights, brake lights and parking lights) for proper functioning.

##### **Brakes**

- Check brakes and adjust to ensure equal braking.

##### **Tires**

The traction between tires and roadway determines how well a vehicle rides, turns and stops, and is crucial for safe driving in winter. Proper tire selection is very important.

- Use all-season radial tires only in areas that receive only light snowfall.
- Use snow tires, having all 4 tires is best, but at least on the drive wheels, in areas that receive heavy snowfall.
- Use chains on all four wheels when you expect severe snow and icy roads. Check with your local Department or Ministry of Transportation office to see if the use of tire chains is legal in the region through which you are planning to drive.
- Check tire pressure and if necessary restore it to levels recommended by the tire manufacturer. The pressure drops about 1 psi for every 5°C (9°F) drop in temperature.
- Do not mix radial tires with other types.

- Check tire balance and correct if necessary.
- Check wheel alignment and correct if necessary.

### Exhaust system

- Check the exhaust system for leaks. A properly sealed exhaust system reduces the risk for carbon monoxide poisoning.
- Keep the window in your vehicle slightly open when you're stuck in snow, and run the engine and heater to keep warm.
- Keep the exhaust pipe clear of snow. A blocked pipe can force carbon monoxide back into the car interior.

### Heating/cooling system

- Check the radiator and hoses for leaks.
- Ensure that your vehicle always has a sufficient amount of antifreeze rated for the coldest weather.
- Check the defrosters (front and back) to make sure they are working efficiently.

### Windshield wipers

- Ensure that windshield wipers function efficiently. Replace them if they are old or worn.
- Fill the washer container with an antifreeze fluid and top it up frequently.

### Fuel

- Fill up the fuel tank before you leave on your trip.
- Do not let the fuel level get too low - the driving time to the next gas station may take much longer than you ever expected, and if you get stuck, the car engine will be your only source of heat.



## What should I include in a winter driving kit?

A well-stocked winter driving kit helps to handle any emergency. It should include:

- Properly fitting tire chains
- Bag of sand or salt (or kitty litter)
- Traction mats
- Snow shovel
- Snow brush
- Ice scraper
- Booster cables
- Warning devices such as flares or emergency lights
- Fuel line de-icer (methanol, also called methyl alcohol or methyl hydrate)
- Extra windshield wiper fluid appropriate for sub-freezing temperatures
- Roll of paper towels
- Flashlight and a portable flashing light (and extra batteries)
- Blanket
- Extra clothing, including hat and wind-proof pants, and warm footwear
- First aid kit
- Snack bars or other "emergency" food and water
- Matches and emergency candles - only use with a window opened to prevent build-up of carbon monoxide.
- Road maps.
- "Call Police" or other help signs or brightly coloured banners.



## How should you prepare yourself for winter driving?

- Plan your driving in advance.
- Avoid driving when fatigued.
- Contact your provincial "Road Reports" to get updates regarding road conditions in the region to which you are going.
- Check weather conditions for your travel route (and time) before you begin driving.
- Plan your arrival time at a destination by taking into account any delays due to slower traffic, reduced visibility, roadblocks, abandoned automobiles, collisions, etc.
- Inform someone of your route and planned arrival time.
- Choose warm and comfortable clothing. If you need to remove outdoor clothing later while driving, **STOP** the vehicle in a safe spot.
- Warm up your vehicle **BEFORE** driving off. It reduces moisture condensing on the inside of the windows.

- **NEVER** warm up your vehicle in a closed garage.
- Remove snow and ice from your vehicle. It helps to see and, equally important, to be seen.
- Wear sunglasses on bright sunny days.
- Bring a cell phone if you have one but do not leave it in the car as the battery will freeze.



## How should you drive in winter weather?

- Buckle up before you start driving. Keep your seat belt buckled at all times.
- **SLOW DOWN!** - posted speed limits are for ideal travel conditions. Driving at reduced speeds is the best precautionary measure against any misfortune while driving on slippery roads. "Black ice" is invisible.
- Be alert. Black ice will make a road look like shiney new asphalt. Pavement should look grey-white in winter.
- Do not use cruise control. Winter driving requires you to be in full control at all times.
- Reduce your speed while approaching intersections covered with ice or snow.
- Allow for extra travelling time or even consider delaying a trip if the weather is inclement.
- Drive with low-beam headlights on. Not only are they brighter than daytime running lights but turning them on also activates the tail lights. This makes your vehicle more visible.
- Lengthen your following distance behind the vehicle ahead of you. Stopping distance on an icy road is double that of stopping on a dry one. For example, from around 45 meters (140 ft) at the speed of 60 km/h, to 80 meters (over 260 ft) on an icy road surface.
- Stay in the right-hand lane except when passing and use turn signals when changing lanes.
- Steer with smooth and precise movements. Changing lanes too quickly and jerky steering while braking or accelerating can cause skidding.
- Be aware and slow down when you see a sign warning that you are approaching a bridge. Steel and concrete bridges are likely to be icy even when there is no ice on the asphalt surface, (because bridges over open air cool down faster than roads which tend to be insulated somewhat by solid ground.)
- Consider getting off the road before getting stranded if the weather is worsening.
- Be patient and pass other cars only when it is safe to do so.



## What should you do if you start to skid?

- Above all **DO NOT PANIC!**
- Look where you want your vehicle to go and steer in this direction.
- **DO NOT BRAKE!**
- **DO NOT ACCELERATE!**
- Disconnect the driving force on the drive wheels by doing either of the following
- If you're using automatic transmission, shift to neutral. However, if you cannot do that immediately, do not touch the transmission gear.
- If you're using manual transmission, declutch.



## How should you brake on a slippery road?

If the emergency does not require slamming the brakes as hard as possible, squeeze braking (also known as threshold braking) along with declutching (manual shift) or shifting to neutral (automatic transmission) will do the job most efficiently.

### Braking without anti-lock brakes

- Use the heel-and-toe method. Keep your heel on the floor and use your toes to press the brake pedal firmly just short of locking up the wheels.
- Release the pressure on the pedal, and press again in the same way.
- Repeat this until you come to a full stop.

### Braking with anti-lock brakes

Also use heel-and-toe method, but do not remove your foot from the brake pedal until the vehicle comes to a complete stop.



## What should you do if you get stuck or stranded in the snow?

- Don't panic!
- Avoid over-exertion and over-exposure to the cold. Cold weather can put extra stress on the heart and contribute to the hazards of over-exertion. Sweaty clothes next to the skin are not good insulators against the cold.
- Stay in the car if you cannot shovel your car out of the snow.
- Stay in the car in blizzard conditions - Do not leave the car for assistance unless help is visible within about 90 metres or 100 yards.
- Turn on flashing lights or set up flares. A brightly coloured cloth on the radio antenna may make your vehicle more visible in daylight.
- Run the car engine occasionally (about 10 minutes every hour) to provide heat (and to conserve fuel). Ensure that the tail exhaust pipe is free of snow and keep the window opened slightly (on the side shielded from the wind) to prevent the build up of carbon monoxide when the engine is running.
- Bundle up in a blanket. If there is more than one person in the car, share - two people sharing blankets will be warmer than either person alone in a blanket.
- Wear a hat and scarf - the head and neck are major sources of heat loss from the body.
- Monitor for any signs of frostbite and hypothermia.
- Do not fall asleep. If there is more than one person in the car, take turns sleeping.
- Do not stay in one position too long. Do some exercises to help the circulation - move arms and legs, clap your hands, etc.
- Watch for traffic or rescuers.



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