

- How weather conditions such as rain, flooded roads, snow and ice may affect your vehicle and your ability to control it
- What to do if your vehicle skids or if you encounter heavy snow, whiteouts or black ice
- How to recognize and share the road with snow removal vehicles

Dealing with emergencies

If you drive often or travel alone, you need to be ready to deal with emergencies. Here are some suggestions for coping with some common road emergencies.

If your brakes fail

Try pumping the brake pedal to temporarily restore hydraulic brake pressure. If this does not work, apply the parking brake gently but firmly while holding the release button. It is a good idea for new drivers to practice a parking-brake emergency stop under controlled conditions with a qualified driving instructor. Total brake failure is very rare on modern vehicles. If your brakes do fail and you manage to stop, do not drive away. Call for help.

If your gas pedal sticks

First try to lift the pedal by slipping your foot under it. Do not reach down with your hands while the vehicle is moving. If this does not work, turn on your hazard lights, shift to neutral and stop as soon as you safely can, preferably off the road. Turn off the ignition and do not drive away. Call for help.

If your headlights go out

Check the switch immediately. If the lights stay out, turn on your hazard lights and bring your vehicle to a safe stop off the road. Call for help. It is dangerous and illegal to drive at night without lights.

If you have trouble on a freeway

At the first sign of trouble, begin to pull over. Do not wait for your vehicle to stall on the freeway. Check your mirrors, put on your hazard lights, take your foot off the gas pedal and pull over to the nearest shoulder as quickly as possible. Never stop in the driving lanes.

Be careful getting out of your vehicle. If possible, leave through the door away from traffic. Do not raise the hood.

While you wait for help, stay in your vehicle with the doors locked. If someone stops to help, ask them to call the police or automobile club for you. If you have a cellular phone, call for help yourself.

The Queen Elizabeth Way, the 400-series freeways and many other high-speed roads are patrolled by the Ontario Provincial Police. Stay with your vehicle, and help will arrive shortly.

If your wheels go off the pavement

Don't panic. Grip the steering wheel firmly. Take your foot off the gas pedal to slow down. Avoid heavy braking. When the vehicle is under control, steer toward the pavement. Be prepared to correct your steering and increase speed when your wheels are fully back on the pavement.

If a tire blows out

Blowouts can cause tremendous steering and wheel vibration, but don't be alarmed. Take your foot off the gas pedal to slow down and steer the vehicle firmly in the direction you want to go. Bring the vehicle to a stop off the road.

In a collision where someone is injured

St. John Ambulance recommends that all drivers carry a well-stocked first-aid kit and know how to use it. Consider reading a book about first aid or sign up for a first-aid course. It could mean the difference between life and death in a collision.

Every driver involved in a collision must stay at the scene or return to it immediately and give all possible assistance. If you are not personally involved in a collision, you should stop to offer help if police or other officials have not arrived.

In a collision with injuries, possible fuel leaks or serious vehicle damage, stay calm and follow these steps:

- Call for help or have someone else call. By law, you must report any collision to the police when there are injuries or damage to vehicles or other property exceeding

\$2,000.

- Turn off all engines and turn on emergency flashers. Set up warning signals or flares, or have someone warn approaching drivers.
- Do not let anyone smoke, light a match or put flares near any vehicle, in case of a fuel leak. If a vehicle is on fire, get the people out and make sure everyone is well out of the way. If there is no danger of fire or explosion, leave injured people where they are until trained medical help arrives.
- If you are trained in first aid, treat injuries in the order of urgency, within the level of your training. For example, clear the person's airway to restore breathing, give rescue breathing or stop bleeding by applying pressure with a clean cloth.
- If you are not trained in first aid, use common sense. For example, people in collisions often go into shock. Cover the person with a jacket or blanket to reduce the effects of shock.
- Stay with injured people until help arrives.
- Disabled vehicles on the road may be a danger to you and other drivers. Do what you can to make sure everyone involved in a collision is kept safe.

In a collision where no one is injured

Follow these steps in a collision where there are no injuries:

1. If the vehicles are drivable, move them as far off the road as possible as this should not affect the police officer's investigation. This is especially important on busy or high-speed roads where it may be dangerous to leave vehicles in the driving lanes. So in a minor collision with no injuries, if you can "Steer it, Clear it". If you cannot move the vehicles off the road, set up warning signals or flares far enough away to give other traffic time to slow down or stop.
2. Call police (provincial or local, depending on where the collision takes place). By law, you must report any collision to the police when there are injuries or damage to vehicles or property exceeding \$2,000.
3. Give all possible help to police or anyone whose vehicle has been damaged. This includes giving police your name and address, the name and address of the registered owner of the vehicle, the vehicle plate and permit number and the liability insurance card.

4. Get the names, addresses and phone numbers of all witnesses.
5. If damage is less than \$2,000, you are still required by law to exchange information with anyone whose vehicle has been damaged. However, the collision does not have to be reported to the police.
6. If you have a camera or cell phone with a camera and it is safe to do so, take photos of the collision scene.
7. If your vehicle must be towed, get the name and licence number of the tow truck operator and/or company. Make sure you understand where your vehicle is being towed.
8. Contact your insurance company as soon as possible if you intend to make a claim.

Summary

By the end of this section, you should know:

- What to do in emergency situations such as vehicle component failure, driving off the pavement or vehicle trouble on a freeway
- The steps to take if you are involved in a collision with or without injuries

Driving efficiently

Vehicles powered by gasoline and diesel give off air pollutants and gases such as oxides of carbon, nitrogen and sulphur, hydrocarbons and soot. These pollutants affect the quality of the air we breathe, our health, crop yields and even the global climate.

Hydrocarbons and oxides of nitrogen react in sunlight to form ground-level ozone, better known as smog. Smog is a major health hazard responsible for respiratory ailments and other illnesses. Oxides of sulphur and nitrogen combine with water vapour to form acid rain, which damages our lakes, forests and crops.

Global warming is the result of too much carbon dioxide and other gases trapping heat in our atmosphere. Global warming could cause average temperatures to rise, causing droughts, crop failures, lower water levels and more frequent and severe storms.

A car gives off less carbon dioxide than a larger vehicle, such as an airplane, truck, bus or train, does. However, because so many people own cars and drive them so often, cars are

responsible for nearly half the carbon dioxide produced by all forms of transportation. Vehicles that carry large numbers of passengers, such as buses, produce less carbon dioxide per passenger than cars.

As a driver, you can help to protect the environment from the harmful effects of driving by following these suggestions. Many of them can also save you money. For further information visit the Fleetsmart (<http://www.fleetsmart.gc.ca>) website.

Before you drive

- Plan ahead. Combine several errands into one trip.
- Avoid driving during rush hours. Driving in off-peak times takes less time, uses less fuel and releases fewer emissions.
- Pay attention to smog alerts. It is especially important to follow these suggestions on days when smog is bad.
- For short trips, consider walking or cycling.
- For longer trips, public transit is an environmentally friendly alternative to driving alone.
- Carpool whenever possible. If you want to meet at a central location, there are free carpool lots in many parts of the province.

While driving

- Avoid starting your vehicle unnecessarily. A large burst of pollutants is emitted when a cold engine is started.
- Turn off your vehicle if parked more than 10 seconds. Even in cold weather, vehicle engines warm up within 30 seconds.
- Obey the speed limits. Driving at high speed uses more fuel and increases your chances of a serious collision.
- On the freeway, use your vehicle's overdrive gear and cruise control for better fuel efficiency.
- Remove unnecessary weight from your vehicle, such as heavy baggage, wet snow and winter sand or salt.

- Maintain your vehicle's aerodynamics. Remove roof racks and compartments when not in use. At high speeds, use your vents instead of opening the windows.
- Use your vehicle's air conditioning wisely. Use your windows and vents in city and stop-and-go traffic. At high speeds, using your air conditioning is usually more fuel efficient than opening your windows and reducing the vehicle's aerodynamics.
- Don't "top-off" the tank when refueling. Spilled fuel releases harmful vapours.

At the garage

- Regular maintenance will keep your vehicle running at maximum efficiency, reducing the fuel you need to buy and the pollutants your vehicle emits.
- Keep your vehicle's engine well tuned. Worn spark plugs, dragging brakes, low transmission fluid or a transmission not going into high gear can increase fuel consumption substantially.
- Follow the recommended maintenance schedule in your vehicle owner's manual to maximize fuel efficiency.
- Have any fluid leaks checked by a specialist to avoid engine damage and harming the environment.
- Keep your tires properly inflated to reduce your fuel bill, emissions and tire wear.
- Have your vehicle's alignment checked regularly to reduce uneven tire wear and fuel consumption.

(For more information on driving efficiently, see the section on maintaining your vehicle (<https://www.ontario.ca/document/official-mto-drivers-handbook/maintaining-your-vehicle>)).

Drivers are reminded that many collisions occur when the driving environment is less than optimal. Whether driving at night, during times of reduced visibility or when road conditions are wet and slippery, drivers are encouraged to use the appropriate safe-driving tips provided in this handbook.

10 ways you can help make Ontario's roads the safest in North America

1. Don't drink and drive. Don't drive when you're taking medication that will affect your driving.