Amendments to the Highway Safety Code included

# DRIVING A PASSENGER VEHICLE

Québec

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**Researched and written by**
Direction des normes et partenariats d'affaires

**Collaboration**
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# HOW TO USE THIS GUIDE

The following symbols will help you use this guide more efficiently.

| Icon | Meaning |
|---|---|
|  | **DID YOU KNOW?**<br>Interesting facts and figures related to the topic being covered |
|  | **IMPORTANT!**<br>Important safety information |
|  | **GO GREEN**<br>Environmentally friendly tips |
|  | **THINK ABOUT IT!**<br>Things you need to consider in order to become a competent driver |
|  | **HELPFUL HINTS**<br>Points to bear in mind to help you drive a vehicle safely, cooperatively and responsibly |
|  | **TOOLBOX**<br>Additional information to expand your knowledge of the subject being discussed |
|  | **THEORETICAL EXERCICES**<br>Exercises that allow you to check what you have learned |
|  | **PRACTICAL EXERCICES**<br>Exercises that allow you to check what you have learned |

# GETTING READY TO DRIVE

Driving is a complex activity. It is only over time that basic techniques are mastered and good driving habits developed. Chapter 1 helps prepare you for the pleasure of driving a passenger vehicle, without neglecting the notion of safety. The preventive attitude of the driver is therefore the first subject addressed. The driver's position and the main components of a passenger vehicle are also included.

The last part of this chapter deals with preparing the vehicle for driving and carrying baggage. Special attention must be paid to both in order to drive safely. The information in this section does not replace that given in an owner's manual. You should get into the habit of regularly consulting the owner's manual of the vehicle you will be driving. It is a goldmine of practical information and offers useful tips to get the most from the vehicle's standard equipment and special features. The recommendations it contains are specific to the vehicle and explain how to keep it in good working order.

# MANDATORY DRIVING COURSE

In Québec, driving courses are mandatory and offered by driving schools recognized by the Société de l'assurance automobile du Québec.

# ADOPTING A PREVENTIVE ATTITUDE

Driving a vehicle not only involves knowledge of techniques, but also brings into play a driver's judgement and the ability to see and foresee. Theory makes it possible to acquire knowledge and develop skills, but it is practice and experience that help the driver adopt a preventive attitude.

Driving a passenger vehicle also involves sharing the road. As well as learning how to drive, you must behave appropriately and respect all road users: other drivers, pedestrians, cyclists, drivers of heavy vehicles and motorcycle and moped or scooter riders.

## Planning on a Learning Period

Before driving, you must plan on a learning period that can vary greatly from one person to another. A learning period will help you assimilate information from different reference sources, both theoretical and practical.

# Acquiring Knowledge

## From theory...

Before actually driving, it is important to acquire theoretical knowledge like traffic rules, road signs and driving techniques.

Learners can start by reading the *Road Access Binder*, this guide as well as the *Driver's Handbook*, which summarizes the main rules contained in the *Highway Safety Code*.

The *Accompanying Driver's Guide: Passenger Vehicle* is also an invaluable tool. It summarizes the different driving techniques and provides a checklist on which to note the new driver's progress during the learning period.

## ... to practice

Plan on several hours of practice driving. It is recommended to practise in various weather and road conditions, including, among other things, in rain or snow, in the evening or at night, on different road surfaces and in heavy traffic.

To make progress in learning to drive, the learner should be assisted by an accompanying driver who is calm and open to discussion. It is also a good idea to talk to other more experienced drivers.

# Getting Ready to Drive



To drive safely, your undivided attention is required. When behind the wheel, you must keep your eyes peeled, be attentive to traffic sounds, have good coordination and mobility to be able to turn the steering wheel or check blind spots without making any false moves. You must also be able to perceive danger quickly and make split-second decisions. You can see why being in excellent physical and mental condition is an important asset for driving an automobile.

Several other factors can affect your ability to drive: illness, stress, fatigue, aging and the consumption of alcohol, drugs or medicine.

You must therefore take into account your physical condition before getting behind the wheel. For example, a flu or migraine could negatively affect your driving. Certain injuries to the foot, wrist or arm could even make driving dangerous.

Certain illnesses require taking drugs that could hinder the ability to drive. Such is the case with prescription drugs to combat anxiety and allergies, which produce effects similar to those caused by alcohol, including drowsiness or over-stimulation. You should always ask your physician or pharmacist about the effects that medication, whether it is prescribed or bought over the counter, could have on driving. It is also important to read the warnings on labels to find out the side effects of any medication you take.

Your concentration, vigilance and ability to react effectively are key factors to safe driving.

Properly evaluating situations and adjusting your behaviour accordingly helps prevent a situation from becoming dangerous. It is crucial to ensuring your own safety and that of other road users.

- On one hand, you have to know how to decode and predict traffic lights and signs. For example: a traffic light that has been green for a while will probably turn yellow by the time the vehicle reaches the intersection.
- On the other hand, you have to know how to anticipate the behaviour of other road users. For example: a driver could change lanes without signalling. A ball rolling into the street is not just an obstacle to avoid; there could also be a young child running across the street to chase it.

1

# THE DRIVER AND PROTECTION OF THE ENVIRONMENT

The transportation industry, based on fuel consumption, represents around 34% of all Canadian carbon dioxide ($CO_2$) emissions, which is the main greenhouse gas.

The more greenhouse gas there is in the atmosphere, the more the earth's temperatures rise. That is the cause of the major climate change now occurring in the world. It is also what is known as global warming.

Global warming is a serious threat. It can have major consequences on health and on the environment. That is why everyone is responsible for improving the situation and reducing greenhouse gas emissions. Even drivers can rise to this challenge.

This logo will accompany all the eco-energy (energy-saving and environmentally friendly) tips found in this handbook. These tips are aimed at protecting the environment, decreasing fuel consumption and reducing greenhouse gas emissions. Depending on how and how often you drive, if you apply these tips, you can expect to save in fuel and maintenance costs every year.

For more information on energy efficiency, see the following websites:

- Energy Efficiency-Natural Resources Canada
  **www.nrcan.gc.ca/energy/efficiency**
- Transition énergétique Québec
  **www.transitionenergetique.gouv.qc.ca**

# Driving Responsibly

You must always bear in mind your safety, that of your passengers and that of other road users.

## Respecting Your Limits

To drive responsibly, both beginner and experienced drivers must know and learn how to respect their limits.

For the beginning driver, the main limits involve the ability to see what is around and the ability to anticipate what is ahead. It is one thing to steer properly on a tight turn, something that can be learned with practice and experience, it is another to have seen and prepared for the turn. Moreover, passengers can distract the driver. Should that become a source of stress, the beginner must not hesitate to refuse passengers other than the accompanying driver.

The experienced driver could become over-confident and even feel invincible, so be careful not to over-estimate your abilities. Remain alert at all times.

## Respecting the Right-of-Way Provided for Road Users

You must abide by the *Highway Safety Code* and its traffic rules, including the right-of-way intended to protect the most vulnerable users. You can thereby anticipate situations that could be dangerous.

For example, when changing lanes, crossing at an intersection or making a turn, you must respect the right-of-way of other vehicles and appropriately judge their distance and speed. You must always be vigilant and make responsible choices.

## Planning Your Route

By evaluating the time needed to get to your destination, you will avoid driving too quickly or opting for sudden last-minute manoeuvres. Such actions could compromise your safety or that of other road users. Here are a few simple tips to help you plan your drive:

- Get an early start;
- Choose the safest route possible for your trip, for example a main road rather than an expressway;
- Plan an alternate route in the event of congestion or roadwork;
- Listen to weather conditions and traffic information to take another route, if need be;
- Consult road condition information services for long drives;
- Consult a recent map of the area or region for long drives or when travelling in another region.

Make only one trip by combining several errands or outings. Short trips do not allow the engine and transmission to reach their peak operating temperature. You have to drive at least 5 km to reach that temperature and only then will fuel consumption and exhaust emissions be reduced.

Planning your route ahead of time ensures you know where you are going and prevents unnecessary detours. It is a good habit to develop, even when you are familiar with your route. You can then better focus on the road, drive with more confidence and contribute to everyone's safety. In poor conditions, for instance when unforeseen events such as an accident or roadwork occur, always remain alert.



Stay alert and vigilant even on a familiar route.

# KNOWING YOUR VEHICLE

You must pay attention to what goes on outside your vehicle, not inside. Many features are designed for the comfort and safety of drivers and passengers. It is important for you to know where these features are and be able to use them without looking at them when you drive.

See your owner's manual for more details on your vehicle's features and accessories and how to adjust them.

## Driving Position

To maintain control of the vehicle, adopt a driving position that allows you to easily reach the pedals, controls and gearshift lever without having to move your body.


### Pedals

The accelerator, or gas pedal, and the brake pedal are found on all vehicles, while the clutch pedal is only found on vehicles with standard transmission.

For good contact with the pedals, wear shoes that fit properly. Shoes with thin soles are preferable, since the driver can feel the pedals better. Avoid high-heel shoes or footwear, such as beach sandals, that are not attached in the front and back.

## Accelerator

The accelerator is the pedal furthest to the right and is used to control the vehicle's speed. Gradually pushing on the accelerator using your right foot firmly planted on the pedal makes the vehicle go forward without jerking. To prevent your leg from getting tired, your heel should be supported by the vehicle floor.

## Brake Pedal

The brake pedal is located to the left of the accelerator. It activates the main braking system to slow down or stop the vehicle. It must also be operated with the right foot.



If the vehicle has power brakes and the engine stalls, you must push harder on the brake pedal to slow down or stop the vehicle.

## Clutch Pedal

The clutch pedal is located to the left of the brake pedal, only in vehicles equipped with standard transmission. Pushing this pedal to the floor disengages the transmission from the engine, allowing you to change gears. This position is known as neutral.

Here are some tips on how to use the clutch pedal:

- Push the clutch pedal all the way down with your left foot and hold it while moving the gearshift lever;
- Keeping your leg slightly bent, sit so you can fully push down the pedal in order to change gears;
- To prevent premature wear of the clutch mechanism, do not leave your foot on the pedal while driving.

On more recent vehicles, the clutch pedal must be pushed down to the floor in order to start the engine.

## Seat

Before starting the vehicle, adjust the seat. A properly and comfortably adjusted seat makes it easier to control the vehicle and clearly see the road ahead. This also reduces fatigue while driving.

Do not adjust your seat while driving or you may lose control of the vehicle.



After adjusting the seat, make sure it is locked into place.

To check whether the seat is fully locked into place, you should be unable to move it forward or backward after having released the seat adjustment mechanism.

For the seat to be in the right position:

- Both your legs should not be completely straight, but slightly bent so you can push the pedals all the way down without having to move in your seat. If your legs are too straight, you might not be able to control the vehicle in an emergency;
- Your right thigh must not touch the steering wheel when you change from the gas pedal to the brake pedal.

### Front Backrest Adjustment

After having adjusted the seat position, adjust the front backrest by leaning forward or backward slightly to move the backrest up or down, using the appropriate lever. When the backrest is in the right position, your hands should be able to rest on the steering wheel with your arms slightly bent.

Seat belts are most effective when you are sitting well back and straight up in the seat, with your back against the backrest. It is dangerous to drive with the seat reclined so that the shoulder belt no longer touches the body. In the event of a collision, you or your passenger would not have the protection normally provided by a properly adjusted seat belt and may be seriously injured.

## Steering Wheel

The steering wheel plays a key role, since it turns the vehicle's wheels in the desired direction. Power steering makes a vehicle easier to turn by reducing the effort needed to turn the wheel. Adjust the steering wheel so you can handle it as easily as possible and clearly see all the gauges on the dashboard. If the vehicle has power steering and the engine stalls, you will need to make a great effort to control the vehicle's direction.

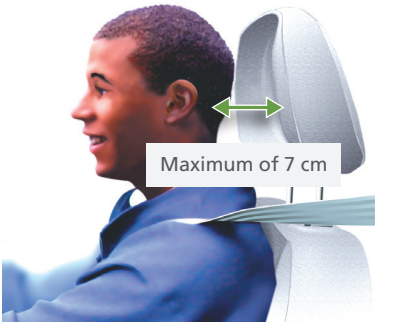
## Headrest

The headrest plays the role of "head protector" by preventing the head from being thrown backward in the event of a rear-end collision. It can also prevent whiplash. If different people drive the same vehicle, each one should adjust the headrest before starting the engine.

An improperly adjusted headrest can cause serious or fatal injuries in the event of a collision.

For maximum protection:

- Adjust the height first: the middle of the headrest should reach your eyes or just above the top of your ears. If it is too low, i.e. at the back of your neck, it cannot prevent whiplash in the event of a collision;
- Adjust the distance between your head and the headrest to a maximum of 7 cm.




To stay alert on the road, do not lean against the headrest while you are driving.

## Rearview Mirrors

Adjust the rearview mirrors according to your driving position.

The inside rearview mirror should give a clear view of the entire back window. If the mirror is too small, it should be adjusted to reflect the right-hand side of the rear window.

Most inside rearview mirrors have a day/night adjustment, also called an anti-glare device, which is a mechanism preventing glare from the headlights of the vehicles behind you. It should almost always be at the day position for better visibility. The night position should only be used occasionally, to prevent the headlights from the vehicle behind you from momentarily blinding you.

The outside rearview mirrors (left and right) should give a clear view of the vehicle's back fender. You can then see part of the lane you are driving in and part of the other lane.

# Safety Features

## Seat Belt

The seat belt is world-renowned as being the best protection for the occupants of a vehicle.

If an accident occurs, wearing a seat belt increases the chance of survival by 50%.

The driver is responsible for ensuring that passengers under 16 years of age fasten their seat belt. People age 14 or older who fail to wear their seat belt are liable to a fine and demerit points. Drivers and accompanying drivers who neglect their responsibilities towards passengers are also liable to a fine and demerit points.

If the passenger is 16 years of age and older, it is the passenger who must assume the penalties.

It is therefore important to ensure that all passengers riding in the vehicle fasten their seat belt before setting out. A passenger in the back seat will not be protected by the seat in front in the event of a collision. Upon impact, all occupants will be thrown toward the point of impact, which is not necessarily located at the front. In addition, in a head-on collision, it is highly probable that a person's knees will touch the front seat first. That could cause the body to rotate. In a split second, the passenger could end up in the front seat and strike hard objects or even the driver or another passenger, resulting in death.

A child whose sitting height is less than 63 cm must be secured in a child car seat suitable for the child's height and weight. However, starting on April 18, 2019, a new provision of the *Highway Safety Code* will come into force. As a result, the child will need to be at least 145 cm tall or 9 years old. See Appendix I for a section on safety features for children.

## Airbags

Airbags are safety features that have been tried and proven. They prevent serious or fatal injuries to the head or chest. They prevent the driver's head from banging against the steering wheel and the front passenger from hitting the dashboard.

According to a study done in the United States, in the event of a collision, the combined use of seat belts and airbags reduces the possibility of serious head injury by 75% and of serious chest injury by 66%.

Some people have suffered serious injuries due to a deployed airbag. This happened because they were sitting too close to the airbag when it was activated.

Make sure there is at least 25 cm between the middle of your sternum and the centre of the steering wheel. To do so:

- Move your seat backward as far as you can while still reaching the pedals comfortably;
- Slightly recline the seat;
- Raise the seat, if your vehicle has that feature;
- Raise yourself by using a firm, non-slippery cushion, if reclining the seat makes it hard to see the road;
- If your steering wheel is adjustable, tilt it downward. This points the airbag toward your chest instead of your head and neck.

If you cannot maintain this minimum distance of 25 cm, consult the car manufacturer or dealership. If the distance is not great enough, a deployed airbag could cause injury.

# Controls

## Starter Switch

The starter switch controls the electrical circuits as soon as the key is put into the ignition. Here are the main functions:

| Position | Function |
|---|---|
| Accessories (*acc.*) | Activates electrical system. |
| Lock | Locks steering wheel and deactivates the electrical system. |
| Off | Deactivates the electrical system without locking the steering wheel. |
| On | Normal driving position after starting the engine. Also makes it possible to check warning lights and gauges. |
| Start | Starts the vehicle. |

Never stop the engine while the vehicle is moving. The power steering and power brakes will no longer work, making steering and braking very difficult.



If the starter switch is placed in the lock position by mistake, while driving, the steering wheel would be locked, and you could lose control of the vehicle.

## Parking Brake

The parking brake keeps the vehicle from moving, without the driver having to do anything. It acts on the rear wheels and is independent of the main braking system. Depending on the vehicle, it can be located between the front seats or near the left foot.

Always keep your right foot on the central brake pedal while engaging or disengaging any type of parking brake.

Prior to driving the vehicle, make sure the parking brake is disengaged. Before leaving the vehicle, make a habit of engaging the parking brake, even on flat ground.

## Gearshift Lever

This lever makes it possible to change from one gear to another, to be in neutral (*N*) or in reverse (*R*). It is found both in vehicles with an automatic transmission and those with a standard transmission.

Automatic transmissions shift gears automatically based on vehicle speed or acceleration. On vehicles with a standard transmission, you must use the gearshift lever every time you want to shift gears. You will find a section on vehicles with a standard transmission in Appendix II.


Gearshift lever
for an automatic transmission


Gearshift lever for
an standard transmission

## Automatic Transmission

For vehicles with an automatic transmission, change gears (P-R-N-D-2-1) using the lever.

| Automatic transmission table – lever position use | | |
|---|---|---|
| P | Park | ▶ For starting the engine.<br>▶ For locking the steering wheel and the transmission into the park position. |
| R | Reverse | ▶ For backing up. In this position, the white lights go on at the rear of the vehicle. |
| N | Neutral | ▶ For starting the engine if the vehicle stalls while in motion.<br>▶ For emergency braking on an icy surface. |
| D | Drive | ▶ For gears to be shifted automatically.<br>▶ For regular driving. |
| 2 | Second gear | ▶ For putting the gear into second (2) and preventing the transmission from changing automatically for city driving or for driving in mountainous terrain.<br>▶ For climbing moderate hills.<br>▶ For using compression (engine braking) on a moderate grade at moderate speed and preventing brakes from overheating. |
| 1 or L | First Gear or Low | ▶ For climbing or descending very steep grades slowly.<br>▶ For preventing brakes from overheating when descending steep grades.<br>▶ For driving slowly on snowy, muddy or sandy surfaces. |

# Tires

The tires alone ensure the vehicle's contact with the road surface. Good tire traction is essential for vehicle control and passenger safety. The effectiveness of the vehicle's traction or propulsion, steering, suspension and braking will depend in large part on the condition and wear of the tires.

## Choice of Tires

To make the vehicle more stable and safe, use four identical tires, i.e. same construction and size.

In Québec, from December 15 through March 15, it is mandatory to equip a passenger vehicle with four winter tires in good condition. However, starting in 2019, vehicle owners will need to have their winter tires installed by December 1. They are designed for maximum traction on snow-covered or icy surfaces.

With the return of milder weather, it is recommended to change back to summer or all season tires. Leaving winter tires on a vehicle in summer can reduce gas mileage. In addition, winter tires are not designed for warmer temperatures and the type of rubber used in them wears out more quickly in summer.

## Tire Maintenance

The important thing in tire maintenance is to keep the air pressure in your tires at the level recommended by the vehicle manufacturer. The air pressure level is indicated on the label inside the door on the driver's side or in the vehicle's maintenance handbook. The air pressure shown on the tire by the manufacturer is for reference purposes only, and indicates the maximum pressure that must not be exceeded.

The vehicle will handle better, consume less fuel and be safer if the tires are inflated properly. Remember:

- A tire with too much pressure has less traction and a higher risk of punctures;
- Insufficient air pressure causes tires to overheat. They could blow and the driver could lose control of the vehicle.

In addition, tires that are not inflated enough can increase fuel consumption. The tires' service life can be reduced by as much as 15,000 km. Depending on the distance travelled by the vehicle, the driver could use the tires one or two seasons longer by respecting the air pressure level recommended.

- Check the air pressure in your tires at least once a month; Always measure the air pressure when the tires are cool, i.e. when the vehicle has not been operated for at least three hours or for a distance of more than 2 km. The more the tires have heated, the greater their pressure;
- Have the wheels balanced after replacing tires or rims;
- Rotate tires every 10,000 km. That cuts down on the wear and tear, reduces fuel consumption and ensures safe driving with maximum performance.

# Visibility Features

## Windows

Windows must be clean both inside and out. They must not be cracked.

Manufacture-installed tinted windows meet legal standards. The vehicle owner who decides to darken or have the windows darkened must ensure that the resulting tint complies with the requirements established in the *Regulation respecting safety standards for road vehicles*.

It is illegal to apply a material to darken the windshield. A strip of not more than 15 cm wide can however be added to the top part of the windshield. The window on each side of the driver's compartment must admit 70% or more light, when measured with a photometer. If the windows are darker than allowed by these standards, visibility may be reduced by lack of contrast, making driving more difficult – something like wearing sunglasses – at night!

## Sun Visors

Sun visors are mobile screens that, when lowered, prevent you from being blinded by the sun. They can be used in front of the windshield or turned to the side in such a way as not to obstruct your view.

## Heating, Ventilation and Air Conditioning Systems

The location of controls for the heating, ventilation and air conditioning systems varies from one vehicle to another. Learn how to use them before setting out since they may need to be used, even on a short trip.

Defrosters eliminate condensation, fog or frost which forms on the inside surface of the windshield, side and rear windows. Using them may be necessary to ensure good visibility for the driver. They can be activated only when the ignition key is in the (*On*) position. To defog windows more effectively, help the air circulate by slightly opening a window.

When cleaning the inside surface of the rear window, do not use abrasives or scrapers that might cut or damage the thin electrical wires. The inside of the rear window should be wiped horizontally.

## Windshield Wipers

Windshield wipers are strips of rubber that clean the front windshield and, in some vehicles, the rear window. The windshield wiper lever or switch usually makes it possible to activate the windshield wipers and the windshield washer fluid.

Windshield wipers can be used in different ways depending on the weather conditions. For example, when there is moisture on the windshield, it can be removed with the windshield wipers alone. However, to remove a mixture of light rain and dust, washer fluid works best. Using the windshield wipers when the windshield is dry may damage it.

# Communication Features

The various communication features help you signal your presence.

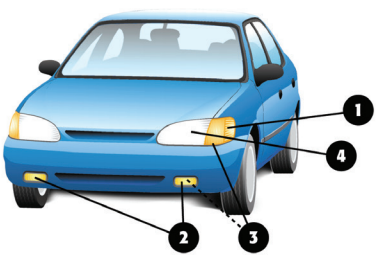
## Horn

The horn is used to get the attention of other road users, especially the most vulnerable, such as pedestrians and cyclists.

## Headlights and Signal Lights

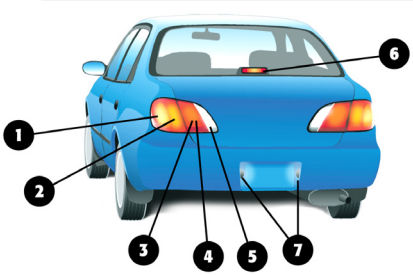
Headlights and signal lights are used to indicate your presence or intentions to other road users.

1. Amber side marker lights (one on each side)
2. Parking lights (white or amber)
3. Turn-signal lights (also used as hazard warning lights)
4. Low/high beam headlights




All the lights are mandatory, but their location may vary with the model of vehicle.

1. Side marker lights (one on each side)
2. Red or amber turn-signal lights (also used as hazard warning lights)
3. Rear parking lights
4. Brake lights
5. White backup lights
6. Elevated brake light
7. Licence plate lights



## Headlights

Headlights are projectors placed in front of a vehicle and designed to light the road ahead. They produce two types of light:

- Low beams are light rays given off by only the upper part of the headlight's reflector;
- High beams are light rays given off by the entire surface of the headlight's reflector.

### Daytime Driving Lights

Daytime driving lights are often low intensity and come on automatically.

### Low Beams

Low beam headlights are used on well-lit roads. They are activated by placing the selector at (*On*). They should be used even during the day to make the vehicle more visible to other road users. Their use is also recommended when visibility is reduced by rain, snow or fog and when in a tunnel.

### High Beams

High beam headlights are always of high intensity. They should be used on unlit or poorly lit roads. When following or meeting a vehicle, you must switch to low beams to avoid blinding the other driver.

## Turn Signals

Often called flashers, turn signals are used to communicate your intention to other road users to make a turn or change lanes.

### Hazard Lights

Hazard lights can be turned on regardless of the ignition key position. They must be used only for safety reasons, i.e. if the vehicle has broken down, if there is an emergency or if you have to drive at a speed that could obstruct normal traffic.

### Brake Lights (Including Elevated Brake Light)

Brake lights are used to warn other road users that you are stopping or slowing down. They come on as soon as the driver pushes the brake pedal. On certain vehicles, the light from the rear parking lights intensifies.

### Backup Lights

Backup lights are the only rear lights that are white. They are activated when the vehicle is shifted into reverse (*R*) on the gearshift lever. They attract the attention of other road users and warn them that the vehicle is backing up. They are also bright enough to light up the road, even when there is no other source of light.

You will find a section on warning lights and gauges in Appendix III.

## Other Components

Before setting out, it is wise to familiarize yourself with any vehicle components that were not described in this chapter. To do that, consult the owner's manual.

# PREPARING THE VEHICLE AND CARRYING BAGGAGE

In preparation for driving, always inspect the inside of the vehicle and check the vehicle's condition regularly.

You will find a section on preparing an emergency kit in Appendix IV.

## Regular Checks

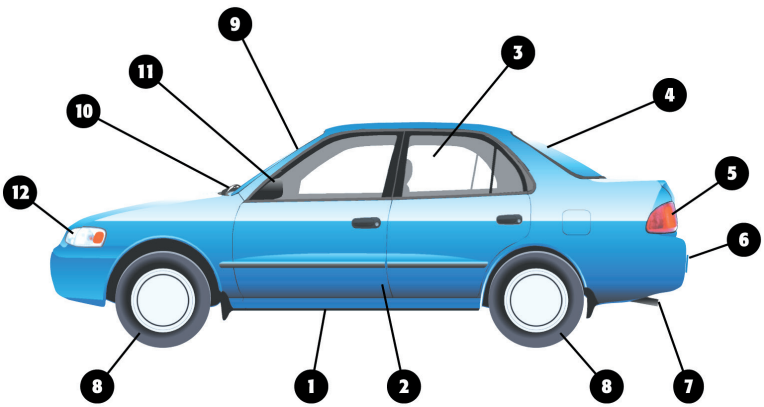
Regular maintenance, checks and tune-ups before long trips help the vehicle operate safely. Many problems and costly repairs can be avoided through regular vehicle maintenance.

A poorly maintained vehicle produces more carbon dioxide ($CO_2$). It can consume up to 50% more fuel to cover the same distance as a vehicle in perfect condition. It can therefore cause more pollution and contribute to urban smog, acid rain and climate change.

Regular vehicle maintenance therefore contributes to protecting the environment. Savings are also made possible every year because of lower fuel and vehicle maintenance expenses. For example:

- Regular maintenance prevents parts from breaking down earlier than normal. Parts can therefore operate at their highest energy-saving potential;
- Regular oil changes ensure that the vehicle operates at its highest potential. Fresh oil lubricates the engine better, which keeps the friction between the metallic parts to a minimum. It also helps to cool the engine and protect it against corrosion. Changing the oil therefore contributes to better fuel economy and reduces greenhouse gas emissions;

- Engine oil evacuates dirt, small pieces of metal and other impurities, which are then trapped in the oil filter. It is therefore recommended to change the oil and the oil filter according to the vehicle's maintenance calendar to avoid costly repairs;
- A blocked air or gas filter can increase fuel consumption by 10%.




1. Possible leaks or objects under the vehicle
2. Body panel
3. Side windows
4. Rear window
5. Lights (rear and brake)
6. Licence plate
7. Exhaust
8. Tires
9. Windshield
10. Wipers
11. Rearview mirror
12. Headlights

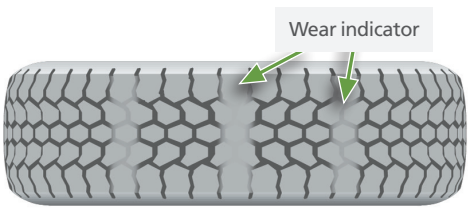
The following checklist shows the recommended maintenance of a vehicle. It does not replace the owner's manual, which contains information specific to the vehicle and, among other things, will tell you how often these checks should be made and how to carry them out.

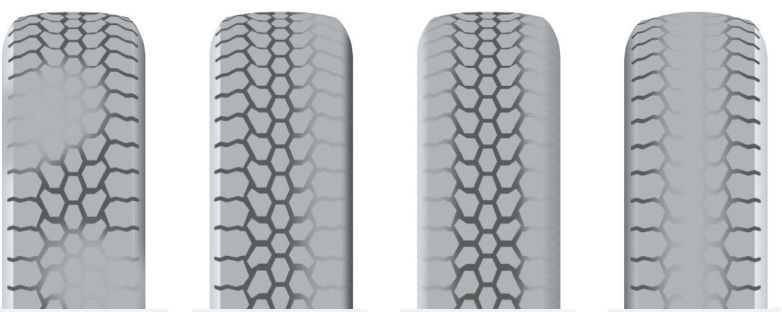
## Regular Maintenance Checklist

| Components | Tips and Checks |
|---|---|
| Tires | ▶ Check the air pressure using a pressure gauge when the tires are "cold". Remember to check the spare tire.<br>▶ Make sure there are no cracks or bumps on the tire treads or sidewalls.<br>▶ Check visually: is the tire worn evenly? Are the front, back, left and right tires worn evenly? In many tires, a wear indicator may appear in the form of an even mark across the tread. See illustration at the end of this table. |
| Brakes | ▶ Consult a mechanic:<br>▷ If you have to press the pedal down more than normal or it feels spongy;<br>▷ If the vehicle pulls to the left or right when braking;<br>▷ If the brakes make a noise (squeal) that indicates wear;<br>▷ If the brake or anti-lock brake system warning light comes on. |
| Clutch pedal | ▶ Consult the owner's manual. |
| Steering system | ▶ Have the steering system checked if something feels wrong, i.e. if the car pulls to the right or left while driving or if it vibrates. |
| Battery and alternator | ▶ Consult the owner's manual. |
| Windshield wipers | ▶ Check their condition regularly. |

## Regular Maintenance Checklist

| Components | Tips and Checks |
|---|---|
| Windshield washing fluid | ▶ Make sure there is enough fluid.<br>▶ Check the level regularly, i.e. every week or every time you refuel. |
| Headlights and signal lights | ▶ Check that they are working.<br>▶ Clean them regularly, especially when travelling in areas with mosquitoes, slush or heavy snow. |
| Coolant | ▶ To check the coolant level, wait until the radiator is completely cool before removing the cap. |
| Engine oil | ▶ Check the engine oil level and add more oil if necessary. |
| Seat belts | ▶ Check their condition and how well they work. |



Uneven wear
- Poorly balanced wheel

Wear on one side only
- Poorly aligned wheel

Worn on the sides
- Underinflated

Worn in the middle
- Overinflated

To ensure your vehicle operates properly:

- Pay attention to unusual noises or anything that might indicate a mechanical problem;
- Respect the preventive maintenance standards in your owner's manual.

# Preparing to Carry Baggage

Make sure the vehicle's interior is safe. Baggage storage and proper transportation of animals need to be taken into consideration to ensure safe driving.

## Packing Objects and Baggage

Make sure there are no objects or baggage lying about or hanging inside the vehicle, whether:

- On the dashboard;
- On the rear window ledge, rear or side windows;
- On the sun visors;
- On the rearview mirrors;
- On the floor;
- On the seats;
- On the hooks.

Objects or baggage lying about or hanging inside the vehicle can:

- Reduce visibility;
- Reduce your field of vision;
- Make it difficult to check blind spots;
- Create reflections in the windshield;
- Blind the driver;
- Move and get stuck under one of the pedals;
- Move and distract the driver and, in the event of sudden braking or collision, could cause injury.

When carrying baggage in the back of a family-type vehicle or one with a rear hatch, it would be wise to install a safety device to prevent objects from becoming projectiles should a collision occur.

## Baggage Carriers

Baggage, sporting goods or any other objects carried on the roof must be secured safely. In some cases, a roof rack can make it easier to distribute a heavy load, reduce fuel consumption and increase the vehicle's safety.

A heavy load may also affect a vehicle's handling and performance. Keep the following in mind:

- Acceleration will be slower and stopping distances longer;
- A heavily loaded trunk may change the headlights' accuracy and range. Spread the weight as much as possible toward the front of the vehicle, including the load on a roof rack;
- To prevent articles from coming loose and causing an accident, it is important to stop during a trip and inspect the load and securing devices.

A baggage carrier on the roof increases aerodynamic drag, i.e. resistance to air. Even if the carrier is empty, it can slow down a vehicle, make driving difficult and increase fuel consumption. That is why it is better to have a removable baggage carrier.

## Transporting an Animal

If you are carrying an animal, make sure that it does not obstruct the driver's vision or interfere with driving. This constitutes an offence under the *Highway Safety Code* and is punishable by a fine.

Remember that an unrestrained animal could become a projectile in the event of an accident and injure or even kill the occupants of the vehicle. Pet carriers and harnesses designed for large dogs that attach to the seat belt are safe solutions.

# SELF-EVALUATION EXERCISES

## Practice Exercises

Exercises on the road must only be done after having obtained your learner's licence. You must also be accompanied by a person who has held a driver's licence for at least two years.

Without looking at them, practise using the devices for adjusting driving position and visibility, the safety and communication features, the warning lights and gauges and the controls.

## Theoretical Exercises

### Scrambled letters

**1. Put the letters back in the right order.**

a) ITETDAUT EEETNRIVVP
b) NALVIGECI
c) SERNOPLEIBS
d) CEPSERLUFT
e) TRSEHDAE
f) RRVWIE RRRMSOI
g) STEIR
h) YTILIBISIV
i) AAPPRRENIOT
j) NTIIIOACREVF

## Multiple-Choice Questions

**2. How can you usually make the brake lights come on?**

a) By pressing the brake pedal.
b) By turning the hazard lights on.
c) By turning the headlight switch to the first position.

**3. What is the first step in properly defogging the windshield?**

a) Roll down the rear windows.
b) Turn the heating system on to high.
c) Turn the ventilation system on as soon as you start the car.

## Matching Game

**4. Match each definition in Column A with the letter for the correct term in Column B.**

| | Column A | Column B |
|---|---|---|
| | 1. Device used to attract the attention of other road users. | a) Horn |
| | 2. Guide traffic on unlit roads. | b) Accelerator |
| | 3. Brake that acts on the back wheels and which can be used in an emergency. | c) Low beams |
| | 4. Device used to warn others of your intentions. | d) Turn signals |
| | 5. Located at the back of the vehicle, these red lights come on when pressure is applied to the brake pedal. | e) Parking brake |
| | 6. Device used in emergencies. | f) Hazard lights |
| | 7. Allows you to modify the speed. | g) Brake lights |
| | | h) Odometer |
| | | i) High beams |
| | | j) Disk brakes |
| | | k) Speedometer |
| | | l) Tachometer |

## True or False

5. Indicate whether the following statements are true or false.

| | True | False |
|---|---|---|
| a) To drive a vehicle, driving skills alone are enough. | ☐ | ☐ |
| b) It is not mandatory to wear your seat belt when the vehicle has airbags. | ☐ | ☐ |
| c) Concentration, vigilance and reaction time are key elements in driving safely. | ☐ | ☐ |
| d) In the event of a collision, a poorly adjusted headrest can cause serious injuries. | ☐ | ☐ |
| e) A passenger sitting in the back seat is always protected by the front seat in the event of a collision. | ☐ | ☐ |
| f) Age is the only common factor among persons having suffered serious injuries following the deployment of an airbag. | ☐ | ☐ |
| g) The stopping distance is shorter when the vehicle is overloaded with baggage. | ☐ | ☐ |

# BASIC INSTRUCTIONS: OBSERVE–EVALUATE–ACT

To properly control a vehicle, you must take into account the technical aspects involved in driving. Among other things, special attention must be paid to the pedals, the steering wheel, the different controls, signals, direction and speed. However, in order to drive, you need more than just technical knowledge. You also need to be able to see and to anticipate.

The **Observe–Evaluate–Act** sequence found in this chapter offers an effective method to visually explore or scan the road. Observing your surroundings helps you better evaluate the situation and, as a result, respond appropriately. That is why it is essential to see well and, more importantly, to anticipate well.

# OBSERVE–EVALUATE–ACT

The Observe–Evaluate–Act sequence allows you to see and quickly evaluate what is happening around you. It therefore allows you to:

- Move into the appropriate place;
- Drive at a speed that suits road and weather conditions;
- Anticipate dangerous situations and react accordingly.



To observe means you know how to "read the road". Reading the road effectively requires good vision and proper attention. You also need to know how to anticipate what is in front of you and look well ahead. Looking ahead enables you to foresee a dangerous situation and respond early enough to avoid danger. To do this, you can rely on indicators like signs, traffic and parked cars.

## Importance of Vision

Driving a vehicle largely involves gathering information provided by the eyes. To ensure your safety and that of other road users, you must have vision that allows you to:

- Clearly distinguish far-away objects;
- Evaluate distances, which is very important when you encounter certain dangerous situations such as:
  - An oncoming vehicle preparing to turn left;
  - A pedestrian wanting to cross the street without having the right-of-way;
  - A cyclist suddenly appearing on the right and turning at the next intersection at the same time as you;

- Have a field of vision of at least of 120° so you can see what is happening to the side;
- Distinguish colours or, for colour-blind people, recognize signal elements such as sign size, traffic light order or the form reserved for each colour.



Driving over a long period causes fatigue. Visual acuity declines and it becomes much more difficult to evaluate distances, which increases the risk of a collision.

As a driver, you should have a good knowledge of your physical abilities and limits, which will help you drive safely. For example, you can:

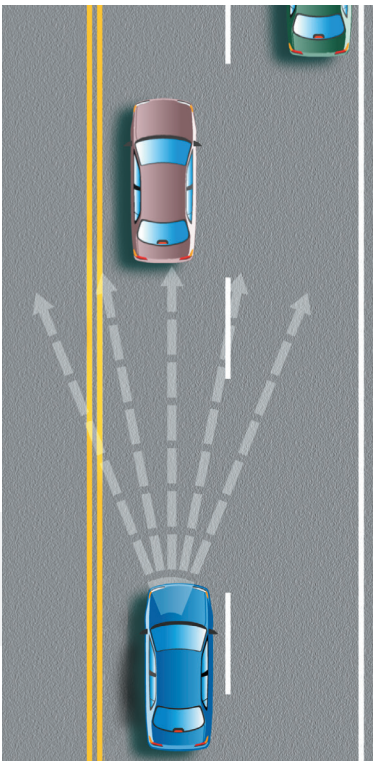
- Choose when to drive if your visual perception is affected by fatigue;
- Get a good pair of tinted glasses and avoid driving in the evening if you are sensitive to glare;
- Increase the distance between yourself and other vehicles by using different points of reference if you have trouble perceiving distances.

## Keep Your Eyes Moving

A good driver must learn how to read the road. Using a scanning technique, you must:

- Look from side to side: left-front-right and then right-front-left;
- Check in the rearview mirror often to see what is happening behind you;
- Do not focus on a single point or object;
- Move your eyes regularly so you can select and retain the pertinent information you need for driving.

The faster you drive, the more you need to keep your eyes moving to compensate for the loss of peripheral vision. Scanning makes it possible to rapidly detect dangerous situations or poor road conditions such as: an animal crossing the street, potholes, a road in bad repair, puddles, etc. To have an overview of your surroundings, also check the sides of the road and keep your eyes open for pedestrians on the sidewalk.

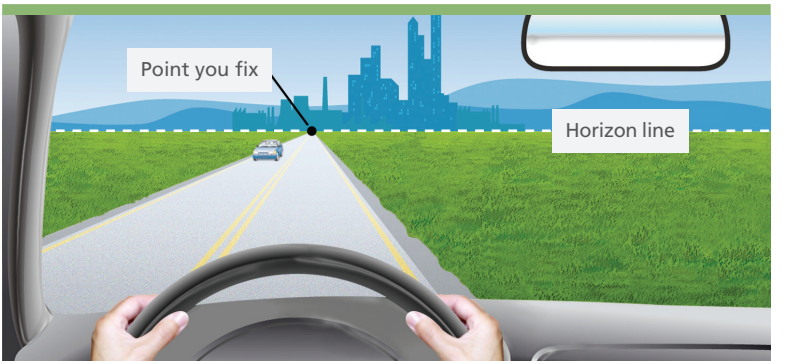


Get into the habit of moving your eyes. It will help you stay alert to what is happening on the road.

## Look Far Ahead

According to a basic driving rule, a vehicle inevitably moves in the direction in which the driver fixes the eyes. To maintain your vehicle in a straight line and more easily detect traffic movement ahead of the vehicle in front of you, it is important to look far ahead toward the horizon. This is particularly important when traffic movements are difficult to predict. This occurs when you drive on a narrow road lined with obstacles and parked vehicles or on a road with several lanes where traffic is heavy.

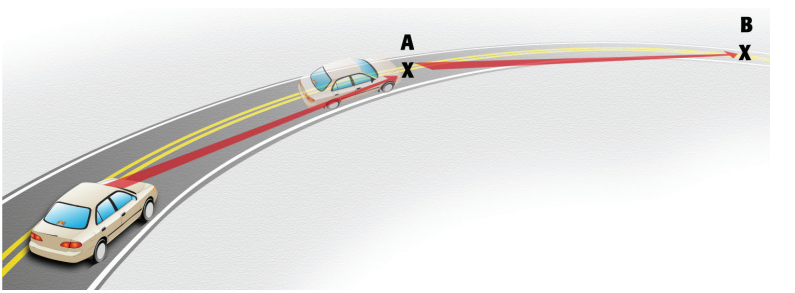
You should also look out for obstacles such as trees or trucks that could obstruct your vision. It is preferable to slow down to give yourself the time and distance you need to react to unforeseen events.




To look far ahead, choose a fixed point in front of you. On a highway, that could be a hill, a bridge or a turn.

## Approaching a Curve

As shown in the illustration below, when you approach a curve, look into the centre of the curve (point A). Once into the curve, move your eyes toward the furthest point of the curve (point B).



# Increase Your Field of Vision

To increase your field of vision, you should not only look out for what is happening in front of you, but also to the rear and on either side of the vehicle. Don't forget to look at what is on either side of the road. Paying special attention to a driver or cyclist attempting to enter the traffic is also very important.



As you accelerate, your field of vision is reduced by 20° for every increase in speed of 15 km/h. You therefore have less time to foresee danger.

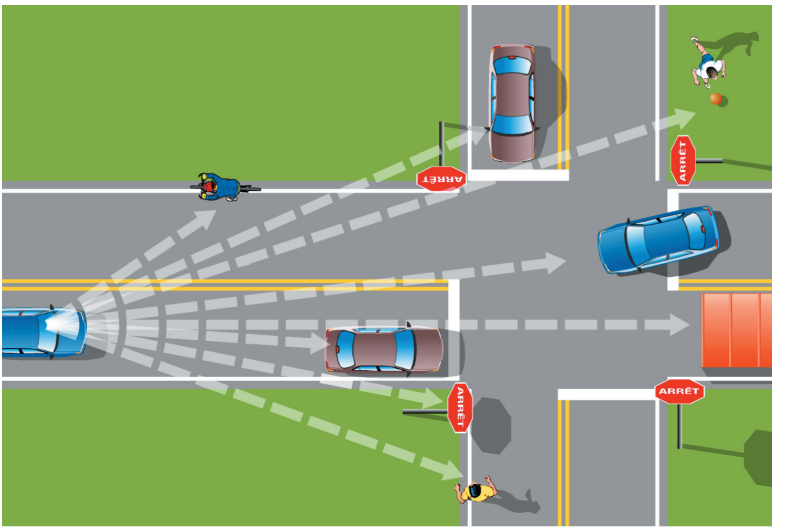
## Approaching an Intersection

As you approach an intersection, scan the sides of the road paying special attention to the blind spot created by the windshield pillars, also known as the A-pillars, since there may be pedestrians or cyclists wishing to cross.

## In an Urban Area

In an urban area, the observation method is the same as the one used when driving on a two- or multi-lane highway. First, look far ahead and then bring your eyes back in front of the vehicle, also checking from left to right to gather information about the surroundings. Pay special attention to:

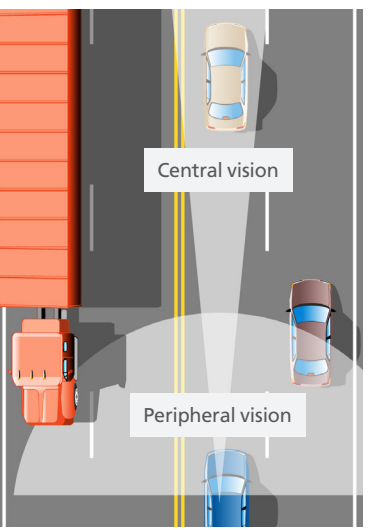
- Traffic flow;
- Traffic lights and their synchronization;
- Roadwork;
- Anything that could obstruct traffic;
- Vehicles ahead that could slow down, change lanes, turn at an intersection or stop.
- Blind spots created by the windshield pillars (A-pillars)




## Ahead and to the Sides

The field of vision includes central vision and peripheral vision. Central vision makes it possible to distinguish details and colours. Peripheral vision makes it possible to detect movements, shapes and masses.

Peripheral vision can cover 180°. It acts like radar that scans its surroundings and draws your attention to what has been detected. The images sent to the brain are then processed and make it possible to judge distances and evaluate a vehicle's speed.



Once you have acquired the habit of scanning your surroundings, you must learn to use your vision selectively, to avoid information overload. You must hone in on what is important for driving. Look out especially for:

- Vehicles;
- Obstacles;
- Types of intersections;
- The roadway's direction;
- Road signs;
- Road conditions;
- Behaviour of others on the road.



The information provided by central and peripheral vision gives you more time to react to anything that may affect your driving.

Pay special attention to certain indicators that may help you better anticipate the manoeuvres of other drivers so you can take the necessary means to prevent any dangerous situation from deteriorating.

## Behind You

Along with looking ahead and to the sides, you must regularly check what is happening behind you in the rearview mirrors.

### Rearview Mirrors

Rearview mirrors are the only accessories that let you see what is happening behind the vehicle. For maximum vision, they should be adjusted before you set out, according to the position you will use when driving.

Traffic changes quickly. You should therefore look into the rearview mirrors often and regularly, for example every 10 to 12 seconds. You should do this while driving straight ahead, but especially before:

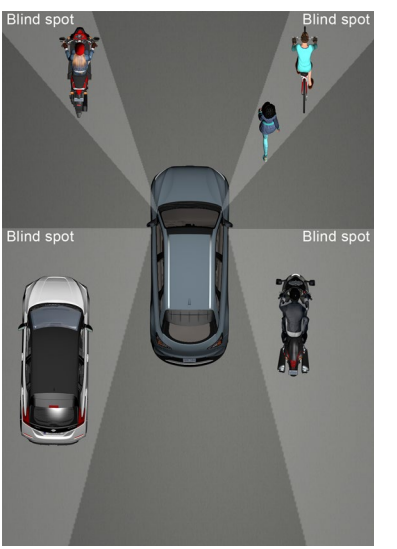
- Slowing down;
- Stopping;
- Changing lanes;
- Turning at an intersection;
- Entering traffic;
- Exiting traffic.

You should also check the rearview mirrors while you are waiting at a stop sign.

Avoid using the right rearview mirror to evaluate the distance between your vehicle and the one following you. It gives the illusion that what is behind you is further away than it really is.

## Blind Spots

The inside rearview mirror used in conjunction with the left- or right-side rearview mirror provides only a partial view of the surroundings. Despite proper adjustment of these rearview mirrors, certain areas located behind, in front, and on either side of the vehicle remain invisible to the driver. Those areas, not perceived in the field of vision or by the rearview mirror, are called blind spots. When a driver changes lanes or makes a turn, special attention should be paid to those spots since they present a higher risk of collision.

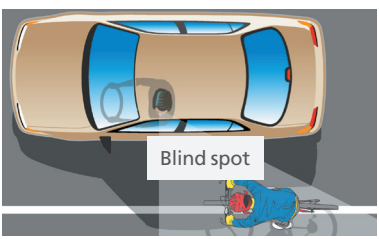


Adjusting the rearview mirrors makes it possible to reduce blind spots but cannot eliminate them completely. To make sure you see everything required to change lanes or make a turn, you must check the blind spot in question.

To check blind spots, maintain your speed, do not brake or speed up. Do this every time you change direction or there is a risk of collision. For example before:

- Entering traffic;
- Exiting traffic;
- Changing lanes;
- Turning at an intersection;
- Backing up;
- Leaving a parking space.

To check a blind spot, quickly turn your head in the direction you want to turn so you can look over your shoulder without moving your body. Glancing quickly, you should be able to see if a vehicle or pedestrian is in your blind spot. This glance is an essential complement to checking the rearview mirrors and ensures you have seen all around you before changing direction. It should be done very quickly so you do not lose sight of what is happening in front of the vehicle.




Avoid driving in other people's blind spot so you won't be surprised by a sudden change in direction on their part.

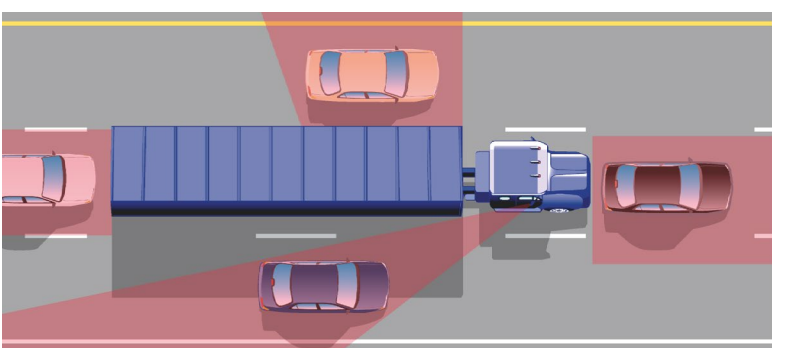
The A-pillars on either side of the windshield create serious blind spots that can block the driver's view of pedestrians, cyclists, moped or scooter riders, motorcyclists, or even other vehicles. Drivers need to be vigilant and double check these blind spots when entering an intersection, especially in urban areas.

Drivers need to be aware of these blind spots and develop the habit of moving slightly forward in their seat to look beyond the A-pillars.



To accurately evaluate the situation and react appropriately, take in the most information possible.

Due to their sheer size, heavy vehicles have even larger blind spots both in front and behind. To prevent a dangerous situation, avoid driving in any of a heavy vehicle's blind spots.



# OBSERVE–EVALUATE–ACT

## Evaluating a Real or Potential Risk



**Vigilance, attention and detection** are indispensable to becoming a skilled and cautious driver. You must develop an ability to detect anything that may constitute a risk or danger for yourself or another road user, such as a cyclist's reaction.

Inattention and lack of experience are not a winning combination!

To know how to react in a given situation, you must take into account:

- Your speed;
- Distance that separates you from other vehicles;
- Possibility of changing lanes;
- Possibility of passing;
- Possibility of braking in normal conditions;
- Possibility of accelerating.

When evaluating the risk, you must also take into account the reaction of other road users, especially pedestrians and cyclists.

A driver faced with several dangers at a time must choose between them by evaluating the degree of risk and severity of each. For example, choosing between a child crossing in front of you and hitting a pothole.

To properly evaluate the degree of risk and severity of the danger, take into consideration the:

- Risk of collision with another vehicle or road user;
- Risk of injury to yourself or other road user;
- Risk of material damage to the vehicle or public property.

In the event of a collision, you should be aware that a danger's severity depends on the place of impact on the vehicle. You should therefore choose the least resistant object. If this is not possible, attempt to make impact at an angle likely to deviate rather than project the vehicle toward a resistant object.

For example, if there were a collision, an impact on the door of the driver's side rather than on the back fender would increase the driver's risk of being injured.

To sum up, when faced with danger, you must know what your options are, such as honking the horn, slowing down, emergency braking or changing lanes. You must then evaluate the consequences of each option to determine which one is best considering the situation.

## Choosing the Appropriate Solution

One you have effectively evaluated the risk, choose the most appropriate and safest solution. Evaluating the consequences of a manoeuvre is a key step in the decision-making process.

Make the manoeuvre and, then, evaluate how good the decision was. Among other things, consider the following elements:

- Anticipate the behaviour of other road users;
- Cooperate with them;
- Share the road in a safe manner;
- Anticipate dangerous situations.

Your evaluation will help you learn from experience and adjust your driving if a similar situation occurs.

# OBSERVE–EVALUATE–ACT

To act means to undertake the action by applying the appropriate solutions at the right time. That requires know-how, i.e. both technical knowledge and skills. How fast you react and how well you coordinate your movements are key factors, regardless of the manoeuvre to be made.

# SELF-EVALUATION EXERCISES

## Practical Exercises

Exercises on the road must only be done after having obtained your learner's licence. You must also be accompanied by a person who has held a driver's licence for at least two years.

1. On your route, determine the type of information provided by road signage (signs, lights, symbols, etc.).

   Practise your ability to quickly detect signs of danger.

   Upon return, make a list of the dangers that you think you detected too late. Indicate, for each of them, what you should have done to detect them earlier. Ask your accompanying driver if your decision was the safest one to make considering the driving techniques and skills you have already acquired through practice.

2. On your route, practise your ability to keep your vehicle stable as you look over your shoulder to check your blind spot.

# Theoretical Exercises

## Multiple-Choice Questions



1. **What is the scanning method that all drivers should know?**

   a) Evaluate–Act–Observe
   b) Observe–Act–Evaluate
   c) Observe–Evaluate–Act

2. **To what extent is the information transmitted to you by your eyes useful in making a decision?**

   a) To a great extent
   b) Equal to that transmitted by your hearing
   c) To hardly any extent

3. **What is meant by scanning selectively?**

   a) Getting as much information as possible
   b) Retaining only the information pertinent to driving your vehicle
   c) Seeing everything that is going on

## True or False

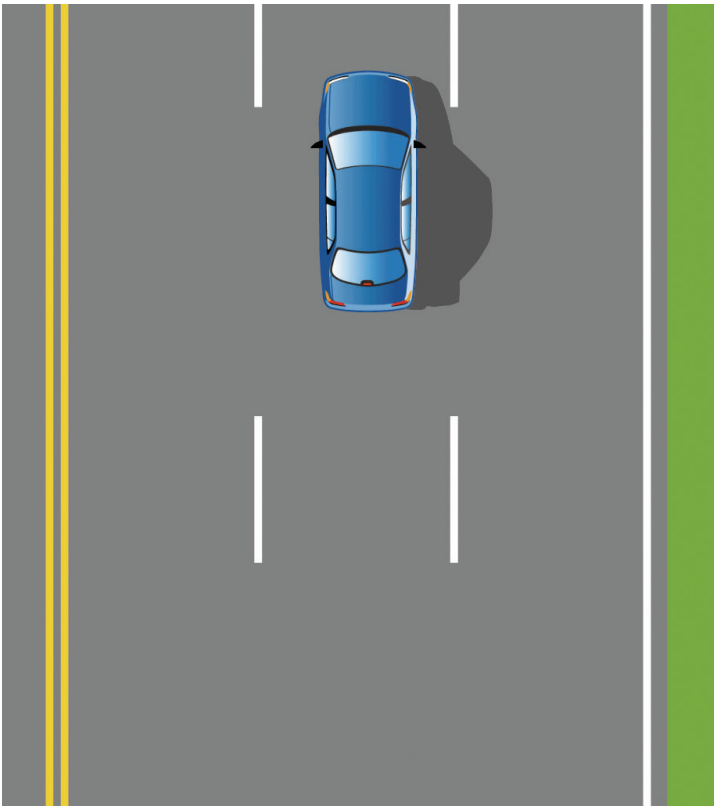
**4. Indicate whether the following statements are true or false.**

| | True | False |
|---|---|---|
| a) Your eyesight is the only sense you can count on to observe your surroundings. | ☐ | ☐ |
| b) Blind spots are not visible in the field of vision, but are visible in the rearview mirrors. | ☐ | ☐ |
| c) The blind spot is a safe place to drive. | ☐ | ☐ |

**5. You are the driver of the blue vehicle.**

**INDICATE 6 POSSIBLE DANGERS.**

6. Draw a vehicle in the blind spot of the blue vehicle.



# CONTROLLING THE VEHICLE

3

Driving techniques cannot be learned overnight and mastering them requires practice. It is crucial to master the techniques, especially when called upon to handle situations that require a quick reaction.

The universe is subject to laws of physics and those laws also govern the driving of a passenger vehicle. To better understand the laws, this chapter will address several of their principles. Various driving manoeuvres to help learners will be described from a safety perspective.

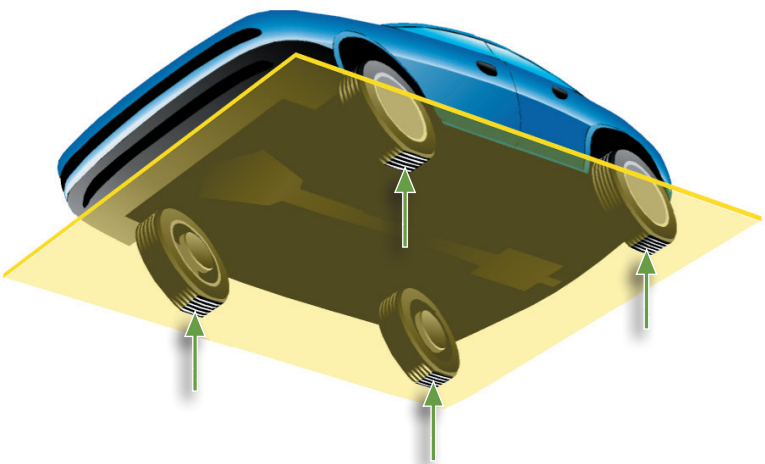
# LAWS OF PHYSICS

To adapt your driving, it helps to understand the different laws of physics. Even cyclists are subjected to those laws. For example, going down a steep hill will increase a bicycle's speed. To brake on that hill, the cyclist must keep in mind that the stopping distance will be much longer than on flat ground.

## Friction

To move an inert object, a force must be applied to it. Similarly, to stop a moving object, an opposite force must oppose it. This is true for a motor vehicle. The motor produces the necessary force to move the vehicle, whereas the brakes constitute the opposing force.





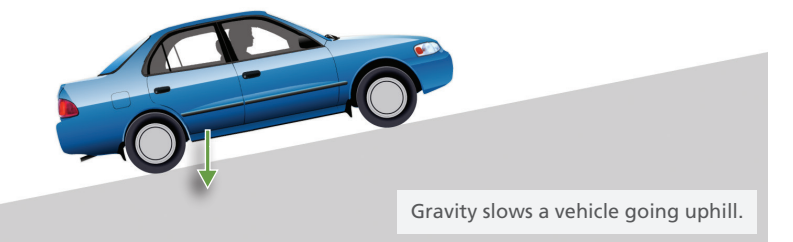
It is therefore important to have tires that are in good condition and that provide good surface traction or grip. Your driving must also be adapted to road conditions. Good tire traction depends on several factors:

- Type of road surface: asphalt, concrete, gravel, dirt road, etc.;
- Road conditions: dry, wet, snowy, icy, etc.;
- Type of tire rubber, their size, pressure and condition;
- Vehicle weight.

For example, the same vehicle, travelling at a same speed, will take longer to stop on a wet surface than on a dry one. The stopping distance will be even longer on an icy surface.

## Gravity

Gravity is defined as the attraction of the earth's mass for bodies at or near its surface. Gravity is what holds the vehicle on the ground. It also causes a vehicle to lose speed when going uphill and to accelerate when going downhill.



Gravity slows a vehicle going uphill.

Gravity accelerates a vehicle going downhill.

A vehicle gathers speed more easily when going downhill. To prevent it from gathering too much speed, it must be held back by pumping the brake pedal. Before beginning the descent, you may want to shift to a lower gear. That will prevent the brakes from overheating.



Before going down a steep incline, do not put the gear into neutral. Instead, choose a lower gear so the engine will slow down the vehicle.

## Inertia

Inertia is a natural law by which a motionless body remains at rest unless it is forced to move. To set the body in motion, an external force must be applied to it (for example, pushing or pulling).



To change an object's motion, we need to exert an opposite force. For example, we need to apply the brakes to stop a vehicle.

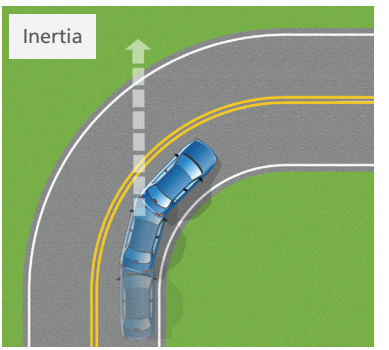
A body will continue in a straight line if a force is not applied to change its direction. Therefore, a vehicle will not turn unless the driver turns the steering wheel. When the traction or friction is sufficient, the vehicle can make the turn.

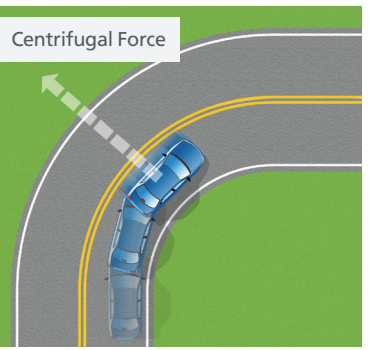
## Centrifugal Force

Centrifugal force is the tendency for an object to move outward from the centre of a circle. It is what pushes a vehicle toward the outside of a curve. For the vehicle to follow the curve's direction, a force is needed to combat the inertia.

The faster you travel on a curve, the greater the inertia and the centrifugal force. The tire condition, type of rubber, size, pressure, speed and road conditions are all important factors involved in turning on a curve. If the traction of the tires is insufficient, the centrifugal force can cause the vehicle to skid by pushing it outside the curve.

Rain, black ice, dead leaves, sand and even worn or improperly inflated tires can reduce their traction to the road surface.




Traction could be insufficient if you make a sudden move, such as accelerating rapidly, braking abruptly, taking a turn too sharply, or a combination of such moves. In any of those cases, you must quickly adapt your driving and use your skills to avoid losing control of your vehicle.

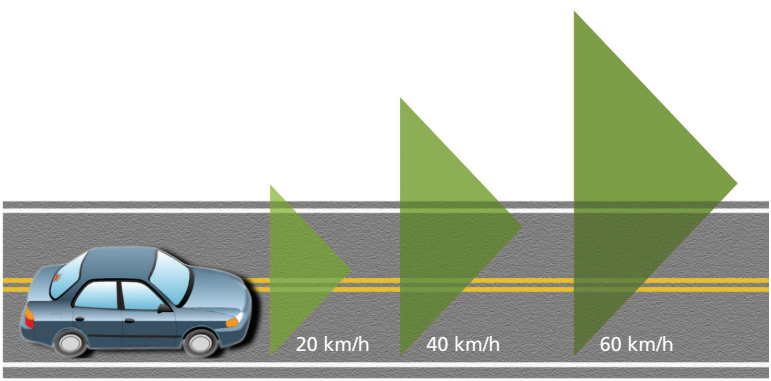
## Kinetic Energy

Kinetic energy is the energy accumulated by any moving vehicle based on its mass and speed. A large vehicle will accumulate twice as much energy as a vehicle half its size. If the speed is doubled, the accumulated energy will be quadrupled; if tripled, it will be increased ninefold.

To stop a vehicle, the energy accumulated must first be transmitted to the brakes. Even before the brakes act to transform this energy into heat, other factors are set into play and slow down the vehicle. Those factors include the rubbing of moving parts, air resistance and the friction of the tires on the road. Simply releasing the accelerator already causes the vehicle to slow down.

It is important to remember that the greater the mass (weight) and speed, two factors that increase a vehicle's kinetic energy, the longer the braking distance. It is longer because the brakes have a limited capacity of transforming the vehicle's kinetic energy into heat.






Role of speed in energy accumulation

## Force of Impact

In the event of a collision, the force of impact is transmitted to the vehicle's occupants depending on certain factors:

- Speed;
- Vehicle weight;
- Distance and time available for the vehicle to slow down or come to a stop;
- Type of vehicle construction (body type, impact absorption);
- Vehicle's safety features, for example seat belts or airbags.

When a collision appears inevitable, you must slow down as much as possible to reduce the force of impact. It is preferable to avoid a head-on collision with an oncoming vehicle. It is important to remember that the vehicle's speed is added to that of the other vehicle. Therefore, if two vehicles are travelling at 50 km/h, the force of impact will be equivalent to that of crashing into a concrete wall at 100 km/h. Since the speed is doubled, the kinetic energy and the force of impact will be quadrupled.

In the event of a collision, the accumulated kinetic energy must be absorbed by the vehicle's deformation or that of the other objects struck. It is therefore important to direct the vehicle toward a least resistant object, for example a cedar hedge, bushes or even a snow bank rather than a pole. In yielding to the impact, the object absorbs the energy coming from the vehicle. The amount of residual energy in the vehicle, i.e. the amount of energy that remains accumulated, will be reduced. The occupants' injuries will also be reduced.

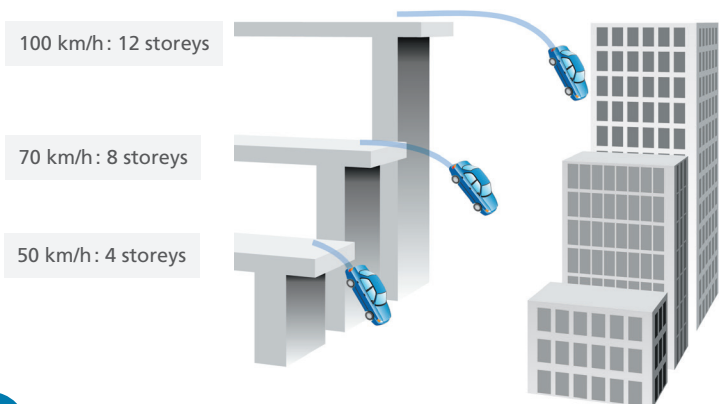
If you cannot avoid a collision, you must try to avoid striking an object head-on. When the contact is made at an angle, the vehicle can then rebound.

Should a collision occur, speed has a major influence on the severity of the impact. Travelling at 10 km/h less can make all the difference.

Zones of 50 km/h and 90 km/h are the most dangerous. In 50 km/h zones, collisions between cars and pedestrians and cyclists occur most frequently. In 90 km/h zones, the force of impact increases the risk of severe injuries and death.

Speed greatly increases the severity of injuries in accidents. The risk of being seriously injured or killed in an accident doubles as speed rises from 50 km/h to 70 km/h and quadruples from 50 km/h to 100 km/h. An impact at 100 km/h is like falling from a 12-storey building.






Always wear your seat belt. In the event of a collision, it keeps the vehicle's occupants from violently striking the vehicle's interior. The seat belt also distributes the force of a collision across the most solid parts of the body, i.e. the hips and shoulders.

# DRIVING SAFELY

## Mastering the Basic Manoeuvres

It is important to master the basic manoeuvres before undertaking more complicated ones.

Drivers should consult the owner's manual to learn about the features of the vehicle they are driving.

Face traffic when you approach your vehicle and when it is parked on the side of the road. Always check if there are any vehicles coming toward you before opening the doors.

### Starting the Engine

Here are the steps to start the engine:

- Apply pressure to the brake pedal;
- Make sure the parking brake is properly engaged;
- Check whether the gearshift lever is in the park (*P*) position;
- Turn the key to the (*On*) position to turn on all warning lights and gauges;
- Check the warning lights and gauges including the glow plug warning light in diesel vehicles;
- Turn the key to the (*Start*) position;
- Release the key when the engine starts.

For the steps to start an engine with a standard transmission, see Appendix II of this handbook.

If one of the red warning lights remains on, turn off the engine and see a mechanic to have the mechanical defect corrected.

It is normal for the parking brake warning light to come on when the parking brake is engaged. However, if the warning light remains on when the parking brake is disengaged, have the problem checked.

If it is difficult to start the engine, you should not keep insisting to avoid weakening the battery. It is recommended that you find the cause of the mechanical difficulty or consult a mechanic.

Letting the engine idle for a long time when the vehicle is stopped causes pollution. An engine that idles too often may wear out more quickly. Since it is running below its peak operating temperature, i.e. the temperature at which it is most efficient, fuel combustion is incomplete. Certain gaseous wastes turn back into liquid and stick to the inside of the cylinders, which can cause higher maintenance costs over time.

Remember that an engine warms up much faster when the vehicle is moving.



## Preparing to Drive

The steps for driving a vehicle are almost the same for an automatic or standard transmission. First, turn on the headlights and ventilation system. Next:

- Press the brake pedal;
- For an automatic transmission, place the gearshift lever into the drive (*D*) position to go forward or the reverse (*R*) position to go backward;
- For a standard transmission, press the clutch pedal and shift the gearshift lever into first gear or into the reverse position;
- Release the parking brake, keeping your foot on the brake pedal.

## Mastering the Steering Wheel

The steering wheel controls the vehicle's direction. Mastering it is one of the keys to driving a vehicle. To have a firm grip on the steering wheel and carry out manoeuvres quickly when a situation requires it, you must keep a certain distance between your hands. With the arrival of air bags, it is now recommended to place the left hand in the nine o'clock position and the right hand in the three o'clock position.

## Driving in a Straight Line

You can travel in a straight line by looking far ahead and keeping your hands on the steering wheel. Pay attention and periodically adjust the wheel. Beginners should be very cautious and avoid over-steering. You must turn the wheel gently to change directions.

## Turning

To better judge the wheels' direction, you should turn the steering wheel only when the vehicle is in motion.

If the steering wheel must be turned more than a half turn, it is best to use the hand-over-hand method. To turn right:

- Both hands should turn the wheel to the right;
- When the right hand reaches the four o'clock position, it should release the wheel, cross over the left arm, grasp the wheel at the 10 o'clock position and continue rotating the wheel to the right;
- This hand-over-hand motion should continue until the vehicle is headed in the desired direction.

To make a tight turn, you can perform this manoeuvre several times.

There are two methods to return to the straight-line position. The first is the hand-over-hand method that was explained above. This is the best method to use if you are travelling at very low speeds, for example when parking.



The second is to allow the steering wheel to slide through your hands, while accelerating slightly to facilitate its return. This method may require a slight course correction to return to the straight-line position. You should avoid using this method when road conditions or nearby obstacles require a more accurate manoeuvre.

You should always be ready to use the steering wheel. To control the wheel's speed as it returns to its position, never completely let go of it as it slides through your hands.

## Slowing Down and Bringing the Vehicle to a Stop

To safely and gently slow down the vehicle, you must take certain precautions:

- **Check your rearview mirrors**: that allows you to check traffic behind the vehicle;
- **Ease up on the accelerator**: that will cause you to slow down somewhat;

- **Brake**: reduce speed slowly and prepare ahead of time. Avoid surprising the driver behind you by suddenly hitting the brakes. Waiting too long to slow down may force you to brake suddenly or cause you to hit the vehicle ahead of you.

## Using the Gearshift Lever in a Vehicle with an Automatic Transmission

It is important to consult the owner's manual to find out how to properly use the vehicle's gearshift lever.

A **column-mounted** gearshift lever must be moved up or down depending on which gear you choose. In the event the gearshift lever is locked into a certain position, unlock the lever by pulling it toward you and then shift to the desired position.

A **floor-mounted** gearshift lever must be pushed forward or pulled backward depending on the desired gear. To unlock this type of lever, on most vehicles, you just push a button.

You will find a section on standard transmission in Appendix II.



To avoid damaging the transmission, it is important that the vehicle be brought to a complete halt before shifting from neutral (*N*) to reverse (*R*) or from reverse (*R*) to park (*P*).

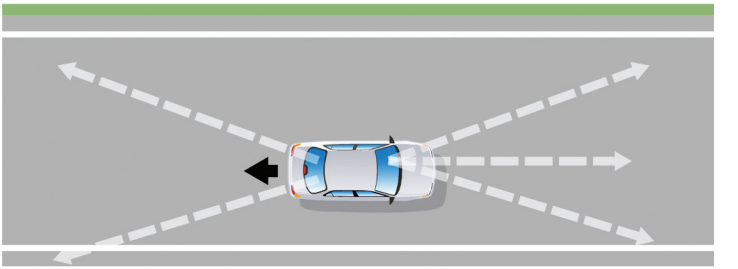
## Backing Up

It is much more difficult to see when you are backing up a vehicle. You must steer while changing your seating position so you can see properly.

The *Highway Safety Code* does not require you to have your seat belt fastened when backing up.

Steps for backing up into a turn:

- Turn on the appropriate turn signal;
- Press the brake pedal;
- Release the parking brake if engaged;
- Make sure the way is clear by looking in front, on both sides and in back of your vehicle;
- Turn you head and upper body to the side where the manoeuvre is being performed;
- Control the vehicle's speed at all times;
- Turn the steering wheel, if necessary, in the desired direction;
- Steer the vehicle while looking out the rear window;
- Glance quickly and frequently in front, on both sides and in back of your vehicle to make sure the way is still clear;
- Move into the chosen space.



# Parking

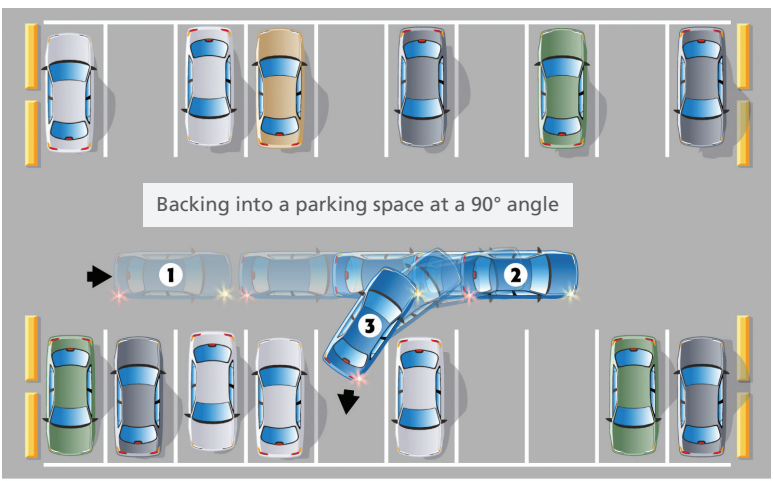
First of all, make sure parking is permitted. There are several types of parking:

- At an angle of 45°;
- At an angle of 90°;
- In a parallel line.

## Moving into a Parking Space

Backing into a parking space will provide good visibility for when you leave the space and will reduce the risk of an accident.






Backing into a parking space at a 90° angle

## Parking on an incline

When parking on an incline, you must turn the wheels of the vehicle so that the tires rest against the curb. This will keep the vehicle in place should the parking brake or transmission fail.

### Uphill Incline

Turn the wheels toward the street

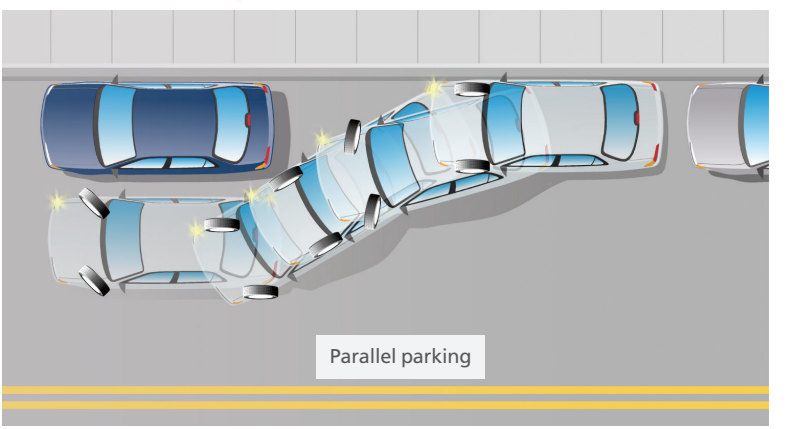
The vehicle must be parked near the curb, with the wheels turned toward the street and touching the curb.

### Downhill Incline

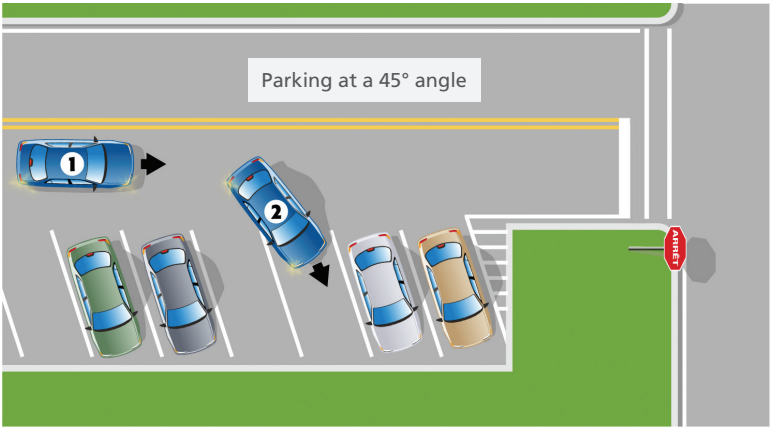
Turn the wheels toward the sidewalk

The vehicle must be parked near the curb, with the wheels turned toward the sidewalk and touching the curb.

The vehicle must be parked less than 30 cm from the curb.



Parallel parking


Parking at a 45° angle
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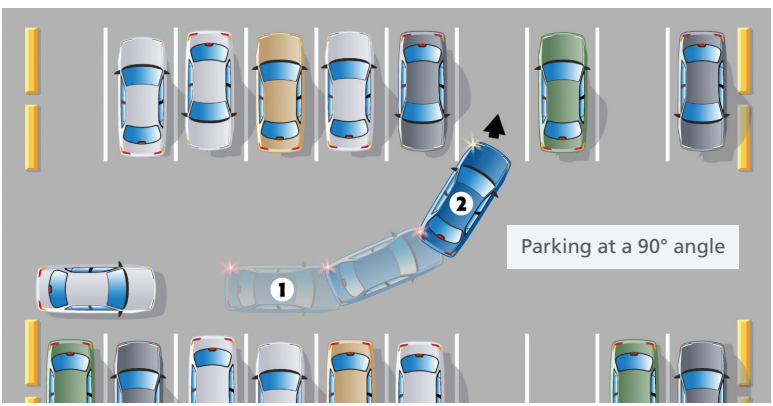
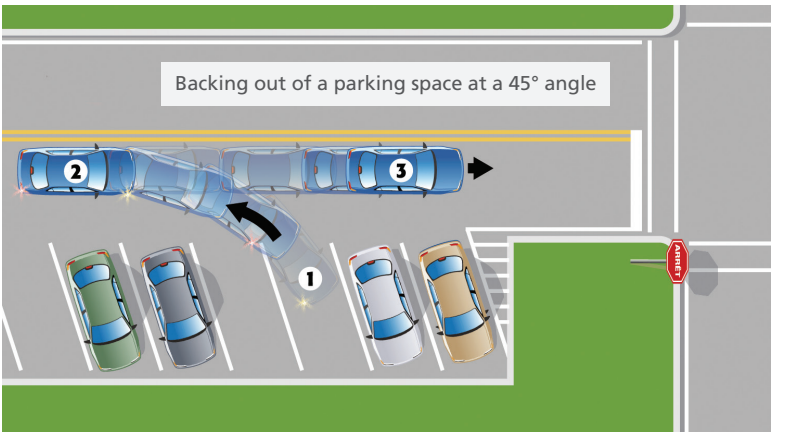
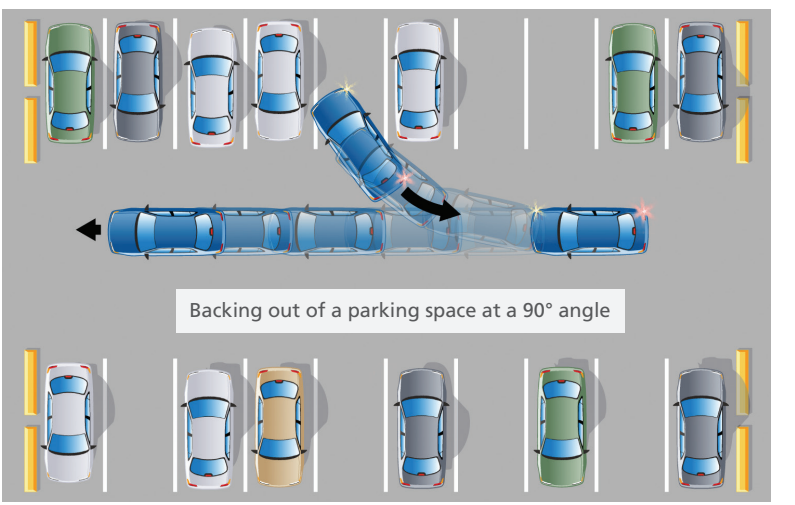
ARRÊT


Parking at a 90° angle
1
2

# Leaving a Parking Space



# Regular Driving

## Pulling Into Traffic

Before pulling into traffic, it is important to turn on the appropriate accessories, such as headlights and, if necessary, windshield wipers or defrosters.

Before moving the vehicle, take the following safety measures:

- Turn on the appropriate turn signal for the direction you want to go;
- Check your rearview mirrors and blind spot on the side you are heading;
- Look left, right and left again.



You must always take into account traffic conditions, speed limits and your ability to pull into the traffic. If the lane is free over a sufficient distance, you may pull in. Otherwise, you must wait.

When you are parking in a private driveway, park rear first so you can leave by driving forward. You will be able to better see whether a child, toy or other object is in your vehicle's path without having to go around it.

## Driving in a Straight Line

You must drive in a straight line to ensure your vehicle's stability. To do so:

- Look far ahead to keep your vehicle in your lane;
- Do not straddle the left or right side of your lane;
- Avoid driving on road lines or the shoulder.

Any course adjustments should be slight, especially when travelling at high speeds. Even on a straight stretch of road, you sometimes have to correct your vehicle's path due to:

- Side winds;
- Road conditions and incline;
- Ruts, i.e. deep tracks caused by the passage of wheels on the road;
- Air displacement caused by heavy vehicles passing you in either direction;
- Under-inflated tires;
- Improperly aligned wheels.



If, under normal driving conditions, you often have to correct your course, it may be because you are not looking far enough ahead.

## Negotiating a Curve

As you reach a curve, you must be able to determine the speed at which it should be negotiated. To choose your speed, certain factors need to be taken into account:

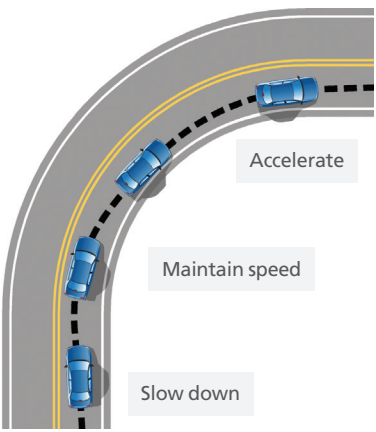
- Your field of vision;
- Recommended speed;
- Curve radius, i.e. the depth of the curve;
- Road incline;
- Road conditions;
- Weather conditions.

Some curves are sharper than others. Taking them at too high a speed increases the chance of losing control of the vehicle.

You must always look as far ahead as possible into the curve to see any obstacles in time. To easily negotiate a curve:

- Slow down before entering the curve when driving in a straight line;
- Look ahead into the direction of the curve;
- Turn the steering wheel once into the curve to direct the vehicle toward the inside of the curve while remaining in your lane, without touching the limits of the curve or the shoulder;
- Maintain your speed once in the curve;
- Accelerate gradually when exiting the curve.

Due to the risk of collision with oncoming vehicles, it is important to avoid driving too close to the median line while taking a curve. The median line is located in the middle of the road. It is also important to watch out for other vehicles whose driver may have misjudged the curve.






Correct your course gently to avoid losing control.

You will find a section on sport utility vehicles (SUVs) in Appendix V.

## Pulling Out of Traffic

Before pulling into a private or public entry, or parking on the side of the road, you must carry out the following safety measures before pulling out of traffic:

- Plan where you will be pulling out of traffic;
- Move into the right-hand lane if the road has more than one lane;
- Turn on the turn signal giving enough warning so that those behind you are not forced to slow down too quickly;
- Check your rearview mirrors and blind spot on the side where you will be pulling off the road to avoid, for instance, blocking a cyclist's path;
- Check traffic behind you. This is very important, especially on roads where traffic is moving quickly;
- Look around carefully and, if necessary, pump the brake pedal to attract the attention of the drivers behind you;
- Check your rearview mirrors and blind spot again just before turning;
- Pull off the road or make your turn, if necessary;
- Pay attention to the movement of other vehicles;
- Turn off your turn signal manually, if necessary.

If you are pulling into a parking lot, pay attention to the other drivers in the parking lot.

## Preparing to Leave the Vehicle

Once the vehicle has been safely stopped, you must ensure to:

- Engage the parking brake while maintaining your right foot on the brake pedal;
- Shift the gearshift lever to the park (*P*) position while maintaining your foot on the brake pedal.

You can now turn off the engine. Before getting out of your vehicle, make it a habit to:

- Look to see if the headlights are off to prevent the battery from being discharged upon your return;
- Check your rearview mirrors and blind spots for approaching motor vehicles or bicycles;
- Do not open the door until it is safe to do so. These dooring precautions also apply to the passengers;
- Make sure the key is not still inside the vehicle;
- Lock all doors.

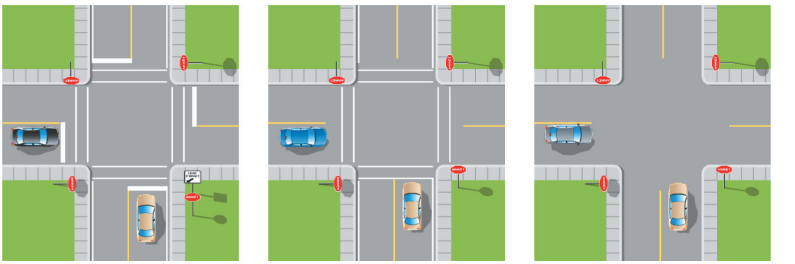
Lastly, it is recommended to get out of the vehicle facing traffic.

## Crossing an Intersection

When crossing an intersection, be aware of collision risks, which are higher. Make sure your view is not hampered by the A-pillars, and pay special attention to cyclists and pedestrians.

## Stopping at an Intersection

When you stop your vehicle, respect the stop line and leave the intersection clear. The distance away from the vehicle ahead of you must be such that you have full view of its rear tires.



For the vehicle to make a full and gentle stop, you must:

- Check the traffic ahead of and behind you;
- Brake with a regular pressure for the comfort of the occupants;
- Stop and keep your foot on the brake pedal.

Accelerate gently and slow down gradually at traffic lights rather than accelerating suddenly and braking at the last minute. That will not only help you adjust to traffic but also save on gas.

## Crossing an Intersection

Intersections are zones where the risk of conflict and accident is high. Before pulling into an intersection, you must make a visual check and follow certain rules:

- Respect the right of way of people with reduced mobility, pedestrians and cyclists;
- Do not stop in the intersection (have enough room to cross it completely);

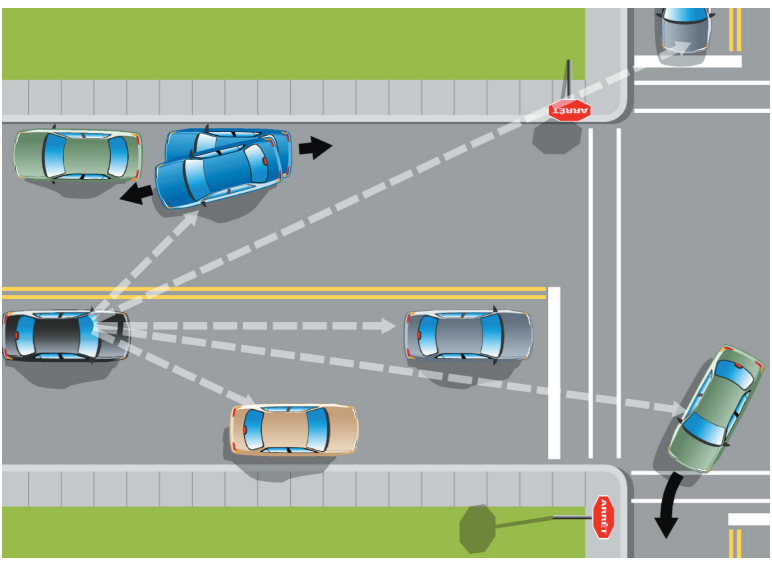
- Do not stop on the stop line or in a pedestrian crosswalk;
- Do not change lanes in the intersection.

Concerning turns, see the chapter on Traffic Rules in the *Driver's Handbook*.

To safely pull into an intersection, you must check for the presence of other road users by looking left, right and left again.

- If it is impossible to pull into it safely, proceed slowly until you are able to do so;
- If you are unable to cross the intersection, wait until it is your right of way again and the way is clear, and make the visual check again.

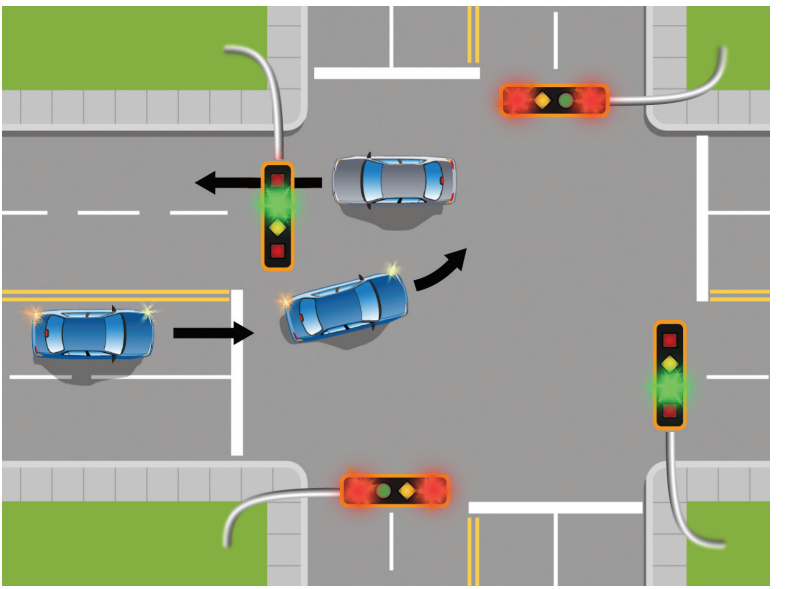




## Turning at an Intersection

When turning at an intersection, be very alert for vulnerable users.

At an intersection regulated by stop signs, you must stop at the stop sign and yield the right of way to people with reduced mobility, pedestrians and cyclists who are crossing or walking along the road you are about to cross or take.



At an intersection, you must:

- Locate the place where you want to turn and make sure the manoeuvre is permitted and can be made safely;
- Enter the turning lane before turning:
  - For a right turn, enter the lane on the extreme right;
  - For a left turn, enter the lane closest to the centre line;

- Check the traffic coming from the left, the middle and the right;
- Check the blind spots in front of the vehicle (A-pillars);
- Check your rearview mirrors and your blind spot on the side you want to turn;
- Turn on the appropriate turn signal in advance and before slowing down;
- Slow down before the turn, if necessary;
- Check to make sure the turn can still be made safely;
- Check the blind spot, if necessary;
- Look left and right to see if the lane is clear and it is safe to enter the intersection;
- Look ahead before moving. This step is important when turning left since oncoming turning vehicles may block your view;
- Turn into the corresponding lane after the turn without straddling the curb, sidewalk or shoulder;
- Gradually accelerate after turning.



### Turning from a Double Lane

Turning from a double lane is only permitted if a sign indicates it. To do so:

- Enter the lane that allows the turn;
- Stay in the same lane when making the turn;
- Get into the corresponding lane on the other road.

## Adjusting to Traffic

To adjust to traffic, you must first observe your surroundings and evaluate anything that could happen in those surroundings.

## Changing Lanes

Before changing lanes, make sure it is legal and safe to do so and respect the right-of-way of other road users. Before choosing a lane, take into account the following factors:

- Type of road surface;
- Traffic density;
- Your speed and that of other vehicles;
- Your direction or course;
- Other turns possible;
- Weather conditions.

Then, you must:

- Check your rearview mirrors;
- Check the appropriate blind spot;
- Turn on the appropriate turn signal;
- Check your rearview mirrors again to make sure the manoeuvre is still possible and safe;
- Check the blind spot again to make sure there is no other vehicle in the chosen lane;
- Stay on course and don't change lanes while you are still checking;
- Change lanes gradually to maintain control over your vehicle;
- Travel at the same speed as the traffic in the lane you have pulled into;
- Turn off your turn signal once the manoeuvre is completed.

Passing in a zigzag fashion is a violation and carries demerit points and a fine.

It is important to plan ahead for changing lanes. For example, on two-lane, three-lane or multi-lane roads, it is illegal to cross two lanes at the same time. If you must change more than one lane, do so in steps. First drive in a straight line in the new lane before changing lanes again. Turn off your turn signal, drive in a straight line again and turn on the turn signal another time.

Any visual checks involved in performing this manoeuvre should not prevent you from paying close attention to the front of your vehicle, especially when you are approaching an intersection.

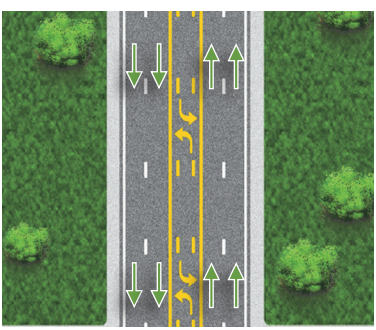
## Making a U-Turn

A U-turn consists of turning around to travel in the opposite direction. A sign indicates where this manoeuvre is illegal. To change directions in the city, it is better to go around the block. In suburbs or rural areas, it is better to continue straight ahead until a turn can safely be made off the road, i.e. in a driveway.



## Passing

Before passing, pay special attention to any indications such as road signs or pavement markings to determine whether passing is authorized. For example, on a road divided into three or five lanes where there is traffic in both directions, it is prohibited to use the centre lane to pass, as it is reserved for left turns by vehicles travelling in either direction.

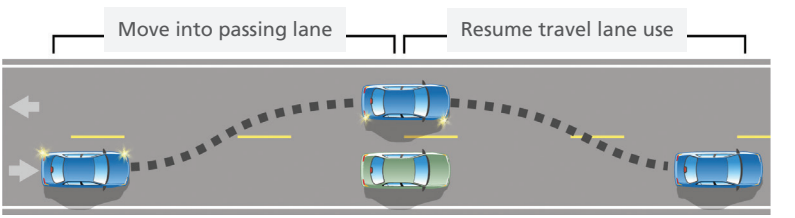


At all times when passing, you must ensure that it is safe and permitted to do so, and that you respect the speed limits.

You will find rules for passing in the *Driver's Handbook*.

Once you are sure you can follow those rules, look ahead of you to make sure there is enough room and time to pass safely. You should stay in the passing lane the least time possible.

The first part of passing is done like changing lanes explained earlier in this section.




The second part of passing involves getting back into your lane. You should prepare to do this manoeuvre when you have come alongside the vehicle you have passed. Now:

- Look at the vehicle to be passed to make sure it is staying in its lane;
- Check the right blind spot and the inside rearview mirror and make sure you have enough room to get back into the lane;
- Turn on your right turn signal;
- Glance one more into the right rearview mirror and blind spot to make sure the situation has not changed;
- Move back into the right-hand lane when the vehicle you have passed is fully visible in the inside rearview mirror;
- Turn off your turn signal manually, if necessary.

## On an Expressway

Passing may appear easier on an expressway due to the number of one-way lanes. It is however important to remain alert. Because of the high speed involved, when you want to pass, be especially cautious when you are:

- Nearing collector lanes and exit ramps;
- In a curve;
- On overpasses and bridges where the shoulders are narrower;
- In the left lane when it is icy or snowy.

Once the vehicle has been passed, re-enter the right lane since the left one is reserved for passing.



Generally speaking, passing is a dangerous manoeuvre. Your ability to OBSERVE is key and will help you REACT well.



## Being Passed

Cooperate with the driver who is passing you and maintain a constant speed in the middle of your lane.

If there is a possibility that an accident could occur with an oncoming vehicle, you must know how to rapidly evaluate the situation. In addition, you must adjust your reaction in either of the following situations:

- When the driver of the passing vehicle accelerates to make a quick return to the right-hand lane, you must slow down;
- When the driver of the passing vehicle foregoes passing if it seems safer to slow down rather than continue, cooperate by speeding up so the passing vehicle can return to the right-hand lane behind you and avoid an accident.

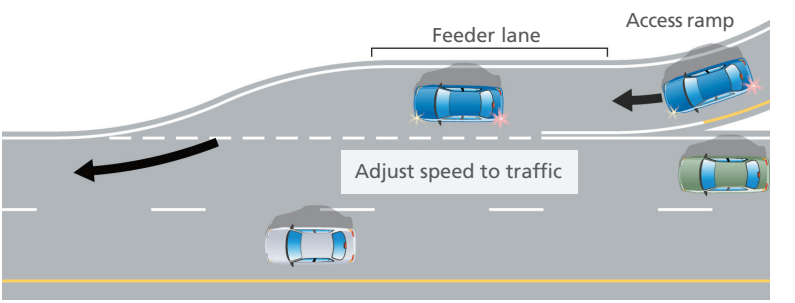
Accelerating when another vehicle is passing you is a violation and carries demerit points and a fine.

## Pulling onto an Expressway

To pull onto an expressway, you will have to use an access ramp. This is the link that makes it possible to leave a road to get onto the expressway.

This access ramp leads to a feeder lane that allows you to accelerate to the speed of other vehicles and merge into traffic at the proper speed while giving the right-of-way to those already on the expressway.

As soon as you are on the access ramp, you must judge the traffic in the feeder lane and on the expressway.




Here are the steps for pulling onto the expressway:

- Evaluate the speed of the vehicles on the expressway and merge with the traffic;
- Stay in the middle of the lane to be as visible as possible;
- **Check** ahead of your vehicle, in your rearview mirrors and in your blind spot;

- Turn on your left turn signal before reaching the end of the access ramp;
- Before reaching the feeder lane, make sure there is an opening in the right-hand lane of the expressway;
- Check ahead of your vehicle, your rearview mirrors and your blind spot again;
- Make sure no other driver changes lanes at the same time;
- Pull onto the expressway at the end of the broken line using the entire feeder lane to adjust your speed with that of the vehicles;
- Merge into the traffic;
- Turn off the turn signal manually, if necessary.

It is important to determine in advance how much to accelerate when leaving the access ramp to merge with traffic. It can be very dangerous to slow down in the feeder lane both to yourself and those following you.



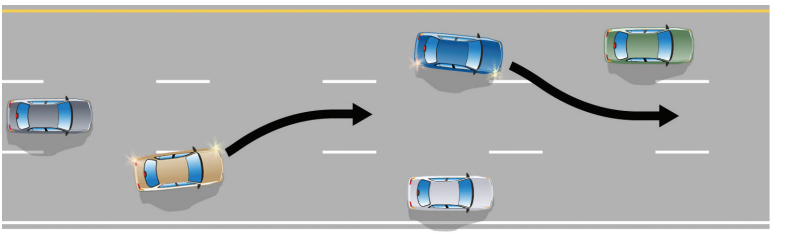
## Driving on an Expressway

Driving on an expressway can be more demanding and difficult, since the traffic is faster. You must:

- Stay in one of the right-hand lanes;
- Keep a good distance from other vehicles;
- Pay attention to traffic, especially as you approach interchanges;
- Pay attention to the movement of vehicles that are passing from one lane to another.

Always cooperate with other road users and anticipate dangerous situations. You must:

- Check your speedometer often so you do not exceed the speed limit;
- Be aware that an increase in speed lenghtens the braking distance and reduces your field of vision.



The right-of-way belongs to vehicles already travelling on the expressway. When you approach an access ramp, you might slow down and cooperate with those wishing to enter traffic.

In addition, check the possibility of driving in the left lane. That could prevent a dangerous situation. For instance, another driver could be entering the expressway without having first made a proper check. Before moving to the left lane, always ensure that it is possible and safe to do so. You must also adjust your speed to that lane so you can smoothly merge with traffic and not cut in front of another vehicle that is travelling faster.

Avoid passing near access ramps. Keep in mind that the driver of the vehicle in front of you in the right lane might want to move into the left lane.

Snow or other obstacles may prevent you from seeing traffic on the ramp. That is why you must be alert and act on the assumption that there is a vehicle on the ramp.

Be very careful of the "hypnotizing effect" of highway driving, i.e. you could have the impression that everything is floating around you, and even risk falling asleep. It tends to happen on a monotonous road or on a highway when you are travelling at the same speed over a long distance. Since the scenery does not change much, you might be tempted to pay less attention to the road. You need to find ways of staying alert and awake.

## Pulling off an Expressway

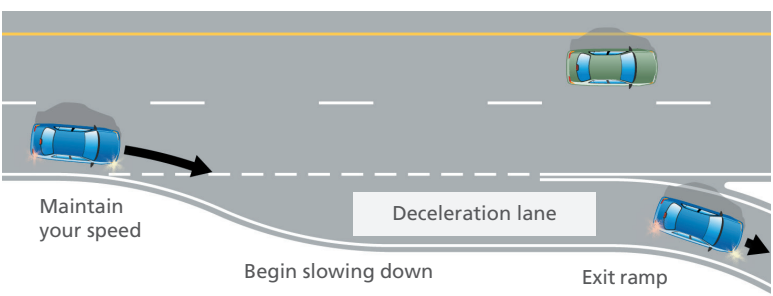
To get off an expressway, use a deceleration lane. That is a lane adjacent to the lanes of the expressway, which allows drivers to slow down before reaching the exit ramp.

The exit ramp begins at the end of the deceleration lane and leads to a road with a lower speed limit. At the intersection of the exit ramp and the road, there is usually a stop sign or traffic light to allow you to merge safely with traffic.



To prepare to get off an expressway, you must:

- Check the signs that show the distance to the nearest exit;
- Prepare your exit by moving into the appropriate lane ahead of time;
- Check the traffic behind you.



To get off the expressway, you must:

- Pull into the lane that will allow you to exit;
- **Check** in front of the vehicle, in your rearview mirrors and in your blind spots;
- Turn on your right or left turn signal, depending on the direction of the lane;
- Change lanes;
- Pull into the deceleration lane and then brake gradually;
- Pull onto the exit ramp at the posted speed;
- Adjust your speed to that recommended on the exit ramp.

When pulling off an expressway, wait to be in the deceleration lane before braking or slowing down.

# SELF-EVALUATION EXERCISES

## Practice Exercises

Exercises on the road must only be done after having obtained your learner's licence. You must also be accompanied by a person who has held a driver's licence for at least two years.

1. Practise taking increasingly sharp curves, being careful to adjust your speed before the curve.
2. Practise making full stops at different intersections (with stop signs, traffic lights, in low- and high-traffic zones, etc.) not forgetting to take the proper precautions before braking.

# Theoretical Exercises

## 1. Put in chronological order the 10 steps for backing up.

a) Move into the chosen space.
b) Press the brake pedal.
c) Control the vehicle's speed at all times.
d) Glance quickly and frequently in front, on both sides and in back of your vehicle to ensure that the way is still clear.
e) Turn you head and upper body to the side where the manoeuvre is being performed.
f) Steer the vehicle while looking out the rear window.
g) Turn the steering wheel, if necessary, in the desired direction.
h) Look in the front, to both sides and in back of your vehicle.
i) Release the parking brake if engaged.
j) Turn on the appropriate turn signal.

2. **Put in chronological order the steps for pulling into traffic. Write the letter corresponding to each number in the space provided for that purpose.**

**ONCE THE ENGINE IS RUNNING:**

a) Check your rearview mirror and blind spot on the side you are heading.
b) Check left and right.
c) Turn on the appropriate turn signal.

3. **Place the steps to be taken for changing lanes in the right order. Write the letter corresponding to each number in the space provided for that purpose.**

a) Turn on the appropriate turn signal.
b) Check your rearview mirrors.
c) Check the appropriate blind spot.
d) Change lanes slowly to maintain control of the vehicle.
e) Maintain your speed and engage in the other lane.
f) Check your rearview mirrors again to make sure the manoeuvre is still possible and safe.
g) Turn off your turn signal manually, if necessary, once the manoeuvre is completed.
h) Check the blind spot again to make sure there is no other vehicle in the chosen lane.
i) Travel at the same speed as the traffic in the lane you have pulled into.

**4. Place in order the steps for negotiating a curve. Write the letter corresponding to each number in the space provided for that purpose.**

a) Turn the steering wheel once into the curve to direct the vehicle toward the inside of the curve while remaining in your lane, without touching the limits of the curve or the shoulder.
b) Maintain your speed once in the curve.
c) Accelerate gradually when exiting the curve.
d) Look ahead into the direction of the curve.
e) Take a place in the lane that provides maximum vision from the outside to the inside of the curve, following a safe course.
f) Slow down before entering the curve when driving in a straight line.

## True or False

**5. Indicate whether the following statements are true or false.**

| | True | False |
|---|---|---|
| a) Looking just in front of the vehicle helps you stay in a straight line. | ☐ | ☐ |
| b) As a general rule, it is advisable back up into a parking spot to better see your surroundings and reduce the chance of an accident. | ☐ | ☐ |
| c) On a two-way highway with three or more lanes going in the same direction, it is permitted to cross two lanes at a time. | ☐ | ☐ |
| d) When coming to a full stop or when changing lanes, any visual checks should be done before you move the vehicle. | ☐ | ☐ |

## Matching Game

6. Match the law of physics with its definition.

| | Column A | Column B |
|---|---|---|
| | 1. I am the result of tires rubbing against the road surface. | a) Inertia<br>b) Centrifugal force<br>c) Friction<br>d) Gravity<br>e) Kinetic energy |
| | 2. I push the vehicle toward the outside of the curve. | |
| | 3. I am a natural law by which a motionless body remains at rest unless it is forced to move. | |
| | 4. I am the attraction of the earth's mass for bodies at or near its surface. | |
| | 5. I am the energy accumulated by any moving vehicle. | |

# SHARING THE ROAD

4

This chapter looks at the behaviour to adopt in order to safely share the road. You will learn how observing and evaluating a situation is so important, but even more so to act in a manner that ensures your safety and that of others.

Other road users and traffic conditions can also make you have to quickly adjust your driving to a situation at hand.

To drive safely, you must:

- Maintain steering control;
- Effectively communicate your presence and your intentions to other road users;
- Maintain a safe speed and distance in relation to other vehicles;
- Know how to take your place while adjusting to traffic and the presence of other users.

# SAFE DRIVING

To drive safely, you must:

- Stay in the middle of your lane;
- Be attentive to oncoming vehicles, since one could move toward the centre;
- Avoid remaining too long in another vehicle's blind spot.

When in doubt, reduce your speed and be prepared to react.


Always cooperate with other road users to make their task easier.

# Communicate Your Presence and Your Intentions

You must be clearly seen by other road users: drivers, pedestrians, cyclists, drivers of heavy vehicles and motorcycle, moped or scooter riders. You must also indicate your presence and your intentions to them.

## Headlights

Driving with headlights on at all times ensures that:

- Your vehicle is easily detected and allows other users to better judge your speed and the distance separating you;
- Your vehicle is more visible in rearview mirrors when you change lanes or pass;
- Your vehicle is generally more visible to pedestrians and cyclists, allowing them more time to react;
- Your vehicle is more visible in poor weather conditions (snow, fog or rain) and in a tunnel.

When you drive at night, you must make sure you do not blind other drivers. That is why:

- **When you meet an oncoming vehicle**: switch back to low beams as soon as you see the glow of the headlights of an oncoming vehicle;
- **When following another vehicle**: switch to low beams as soon as your lights shine on the vehicle in front of you;
- **When being passed**: switch to low beams as soon as the passing vehicle is beside you and return to high beams once the vehicle is far enough ahead.

If necessary, communicate your intentions using the hand signals found in the *Driver's Handbook*.

## Headlight Warnings

Headlight warnings consist of alternating high beam and low beam lights as a warning. They serve to:

- Warn drivers of oncoming vehicles that their high beams are blinding you;
- Indicate your presence in certain cases.

## Visual Contact

Visual contact is a way of communicating with other road users. It helps you ensure that others have seen you. You must nevertheless always remain vigilant. Other users could underestimate your speed and distance in relation to their own.

## Horn

The horn makes it possible to get the attention of other road users to ensure your safety and that of others. It should be used sparingly to avoid surprising other users, especially children, who could react in an unpredictable manner. It should be sounded only to:

- Indicate your presence if you doubt whether you have been seen;
- Signal danger.

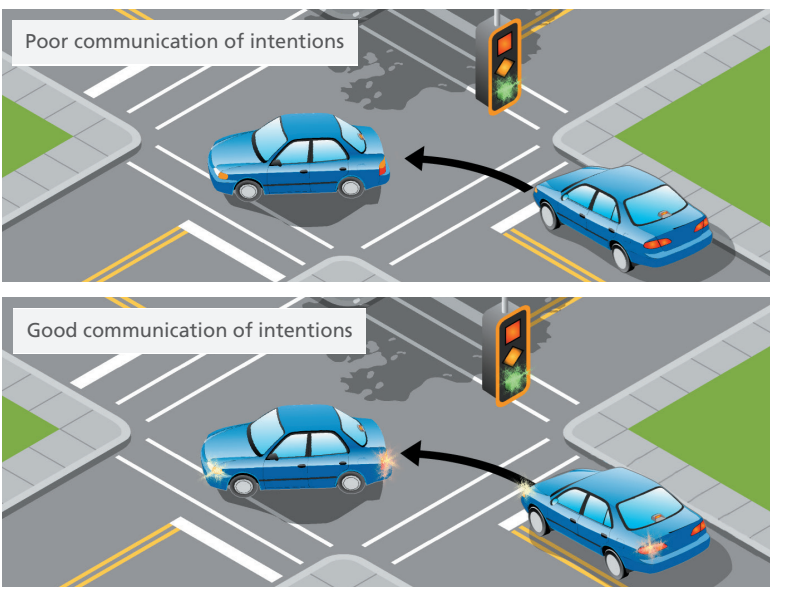
## Turn Signals (Flashers)

Communicating one's intentions is the basis for harmonious and safe coexistence between various road users and for applying the precautionary principle. Not signaling your intentions is considered one of the main irritants and a lack of courtesy on the road.

You must turn on your turn signals sufficiently early:

- Before changing lanes or directions;
- To indicate a chosen place to park;
- Before braking to indicate a turn at an intersection.

They must be used at the appropriate time. Using them too soon may send a misleading message. On the contrary, using them too near the place they should be used may not give enough warning to the driver behind you.



## Brake Lights

Brake lights warn other road users of your intention to slow down or stop the vehicle. To turn them on or off, apply pressure to the brake pedal. On a vehicle with a standard transmission, stepping lightly on the brakes while downshifting makes it possible to warn other users of your intention to slow down.

To better indicate your presence to drivers at a distance, it is recommended that you keep your foot on the brake pedal, even if you are temporarily stopped, since the brake lights are not on when the engine is in neutral.

## Other Lights

Parking lights, back-up lights or hazard lights also send messages. You must be sure to replace these lights when they are burnt out.

# Maintain a Safe Speed and Distance

Driving at a safe speed means you must observe the speed limit. Those limits are established to ensure smooth traffic flow and the safety of road users.



Driving too fast:

- Reduces your field of vision and tire traction;
- Increases the braking distance and severity of impact in the event of a collision.

Minimum speed limits must also be respected. A vehicle travelling too slowly may become a danger for other drivers and obstruct traffic.

You must learn how to adjust your speed to road and weather conditions. When conditions are poor, drive below the maximum speed limit to give yourself time to react to unforeseen events.

To drive safely and save on gas:

- Drive at a constant speed;
- Accelerate slowly to pass or rejoin fast-moving traffic;
- Avoid braking suddenly;
- Avoid high speeds. Remember that, on the highway, if you increase your speed from 100 km/h to 120 km/h, you consume up to 20% more gas and produce $CO_2$ emissions. If you reduce your speed from 100 km/h to 90 km/h, you consume up to 10% less gas.

## Keeping a Safe Distance in Front of You

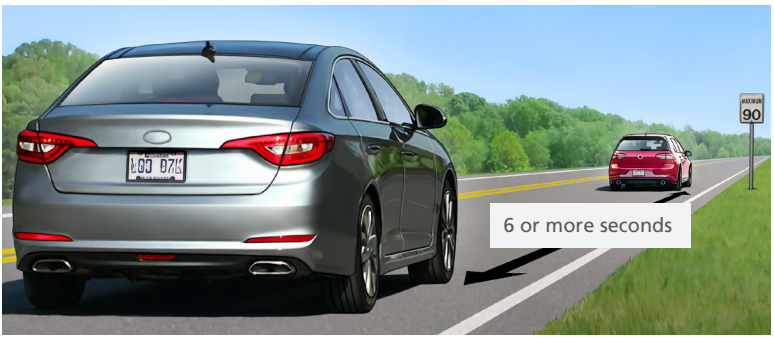
You must keep a safe distance between yourself and the vehicle in front of you to be able to react and avoid a collision should the driver in front brake suddenly or lose control of his or her vehicle.

Driving too fast in poor weather or road conditions, or following a vehicle too closely are both violations that carry demerit points and a fine.

Under normal conditions and on a dry surface, that distance corresponds to the distance travelled to reach a fixed point within a given minimum time:

- In the city, the rule is four or more seconds;
- On highways, the rule is six or more seconds.

When weather or road conditions are poor, you must slow down to increase that distance.




Remember that this rule makes it possible to have a minimum distance to avoid the risks of a collision. In some circumstances, it would be good to give yourself an even greater safety margin. In more difficult situations such as:

- Reduced visibility (night, rain, fog);
- Dangerous surfaces (slippery, damaged or gravel-covered road);
- Reduced tire traction (tire condition and pressure).

Increase the interval to three or four seconds and even more by counting, "**one thousand and one, one thousand and two, one thousand and three, one thousand and four**" and even more, if necessary. Since braking distances are greater on an icy or snowy road, for instance, the space between vehicles should represent a time of at least eight to ten seconds.

## Keeping a Safe Distance Behind You

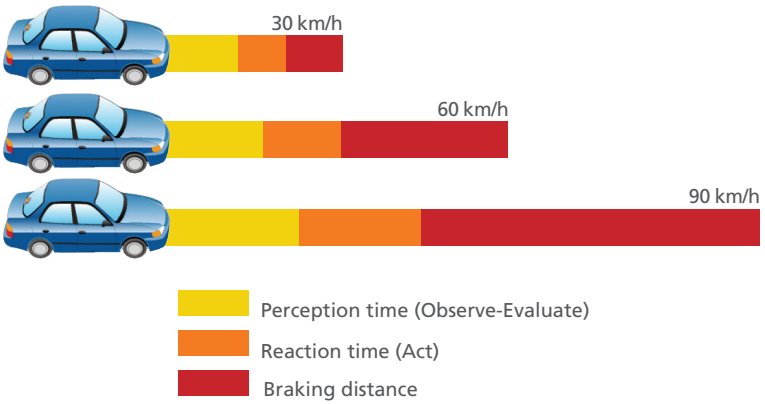
The space behind the vehicle is harder to control. To maintain a good safety margin, check your rearview mirrors often to ensure that the space behind is equal to that in front. If a vehicle is following too closely and infringes on your safety margin, leave even more space in front. That may prompt the other driver to pass you. However, if the other driver continues to follow too closely, pull off the road as soon as you can do so safely.

## Stopping Distance

The stopping distance is the minimum space needed to stop a vehicle under normal driving conditions. This distance is influenced by the vehicle's weight and speed. However, other factors may also come into play since, before braking, you must first see the hazard and react quickly.

**Factors that influence the total stopping distance**

| Steps | Factors |
|---|---|
| **Perception time (Observe – Evaluate)** | |
| Time needed by the driver to see an obstacle | ▶ Health<br>▶ Vision (eyesight) |
| **Reaction time (Act)** | |
| Time needed by the driver to press the brake pedal | ▶ Driver's reflexes<br>▶ Stress level<br>▶ Degree of fatigue<br>▶ Psychological state |
| **Braking time** | |
| Time needed to stop the vehicle from the moment the driver presses the brakes | ▶ Vehicle's mechanical state<br>▶ Road and weather conditions |




The total stopping distance can vary greatly with the circumstances. That is why you must adjust your speed at all times, not only according to weather, road and traffic conditions, but also to your physical or psychological state.

Poor tire traction may require a much greater braking distance or cause you to lose control of the vehicle. Be careful on ice-covered roads, which greatly reduce tire traction.



Adopting safe driving techniques is not complicated. Be aware of what is happening around you. Adjust to road and weather conditions and learn to anticipate.

## Keeping a Safe Distance When Stopped

That distance corresponds to the length of a vehicle, i.e. approximately five metres, which allows you to see the road and the tires of the vehicle in front of you. Keeping that distance will allow you to go around the vehicle in case of an emergency.

# COOPERATING WITH OTHER ROAD USERS

You must share the road with numerous other users. To do so harmoniously and safely, you must:

- Observe speed limits;
- Be careful and respectful in the presence of more vulnerable people;
- Yield to pedestrians crossing at a green light, at an intersection where there is a stop signal or at a pedestrian crosswalk;
- Avoid passing a cyclist travelling in the same lane when the space does not allow you to do so without danger;
- Maintain a safe distance from the vehicle in front of you;
- Beware of heavy vehicles and avoid staying too long in their blind spots;
- Avoid passing a motorcyclist in the same lane and respect the group formation.



## With Pedestrians

The driver must be especially careful with pedestrians, as they have no protection if there is an impact. They are vulnerable and their reactions can sometimes be hard to predict. Some cross the street outside of crosswalks reserved for them or arrive suddenly between two vehicles.

It is also important to be patient with young children, persons who walk slowly and the elderly, who may need more time to cross the street than that allowed by the traffic light.

When passing a pedestrian, the driver must keep a distance of:

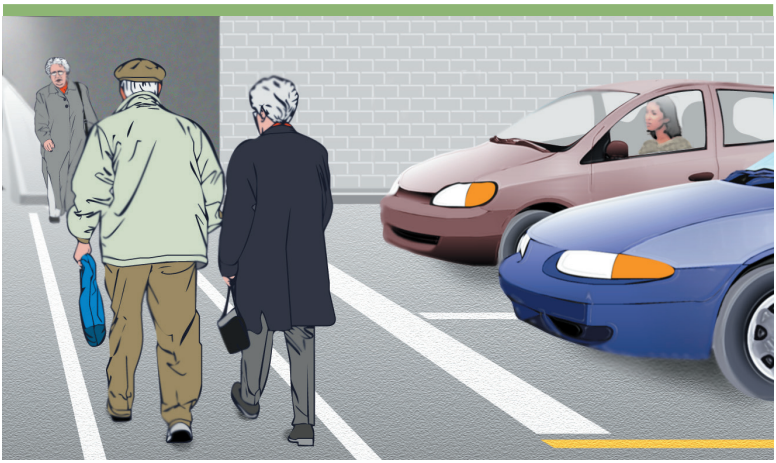
- 1 m in a zone of 50 km/h or less;
- 1.5 m in a zone of more than 50 km/h.

The driver must avoid meeting or passing another vehicle that is driving close to pedestrians walking on the side of the road. They are sometimes hard to see in the evening, especially when they are wearing dark-coloured clothes.

In the presence of a group of pedestrians, the driver must protect them by applying the following precautionary principle:

- Slow down;
- Keep a safety corridor when a group of pedestrians is walking against oncoming traffic;
- Do not pass them on a road with two-way traffic.

Most accidents involving pedestrians occur between 3:00 and 7:00 p.m., in places where the speed limit is 50 km/h or less.



## At Pedestrian Crosswalks

As a rule, you must stop to allow a pedestrian to cross as soon as the pedestrian steps onto a crosswalk **or signals his or her intention to cross**:

- The pedestrian walks toward the crosswalk;
- The pedestrian waits on the sidewalk along the crosswalk;
- The pedestrian waves;
- You make eye contact;
- Etc.



## At Intersections

Respect the pedestrians' right of way at intersections:

- With a stop sign;
- At green lights;
- At pedestrian lights;
- Before turning right on a red light.

## Pedestrians With a Visual Disability

Given their visual disability, those pedestrians listen to engine noises to predict traffic movement. Near them, you must proceed carefully:

- Do not speed up to pass in front of them;
- Do not back up near them;
- Do not sound your horn, which could startle them;
- Do not distract them by keeping the radio on too loud.

## With Children

Pay special attention to children. Their behaviour is much less predictable than that of other road users:

- They are often less conscious of danger;
- Their peripheral vision is not as developed as that of an adult;
- They have more difficulty evaluating the distance and the speed of other road users;
- They do not know traffic rules, let alone the braking distance of vehicles;
- They may be startled when they hear a vehicle approach and react in an unpredictable manner.

Before signalling to a child to cross at an intersection, make sure it is possible for them to do so without danger, by checking to see if there is no traffic both ahead of you and behind you.

## With Cyclists

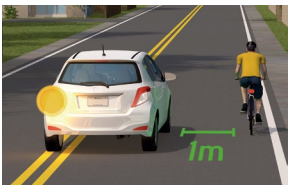
Cyclists have the same rights as drivers of an automobile. The driver must be especially careful at intersections, as cyclists may turn left or right without raising their arm if such a manoeuvre is detrimental to their safety. Drivers should pay close attention in the presence of cyclists and follow certain safety rules, especially when passing or when occupants exit the vehicle:

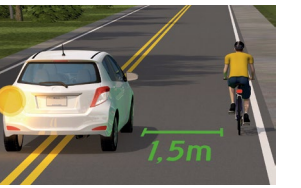
- When passing a cyclist, keep a distance:
  - Of 1 m in a zone of 50 km/h or less,
  - Of 1.5 m in a zone of more than 50 km/h;
- Slow down before reaching a cyclist. Indicate your presence by sounding your horn only if absolutely necessary, since that could startle the cyclist and result in a fall;
- Before turning right at an intersection, check the side of the road, your rearview mirrors and right blind spot and give the right of way to any cyclists;
- Before turning left, give the right-of-way to oncoming cyclists and check your rearview mirrors and left blind spot;
- Beware of cyclists weaving in and out of traffic;
- Avoid driving or parking on a bike path, since they are reserved for cyclists. To avoid hitting a cyclist, check before opening your door when you park on the side of the road;
- Do not drive on bike paths, since they are reserved for cyclists;
- Do not stop on a bike path or less than 5 m from it;
- When your vehicle is parked on the side of the street, check whether a cyclist is approaching (rearview mirrors, blind spots) before opening your door;
- Keep in mind that a cyclist using the shoulder of a secondary road might suddenly decide to move back onto the road;
- Be especially careful at night since not all bicycles are equipped with the mandatory reflectors or lights.

## Space to Leave When Passing a Cyclist

When passing a cyclist, keep a distance:

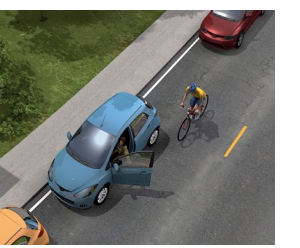
- Of 1 m in a zone of 50 km/h or less;
- Of 1.5 m in a zone of more than 50 km/h.




Passing a cyclist without leaving enough space is a violation that carries demerit points and a fine.

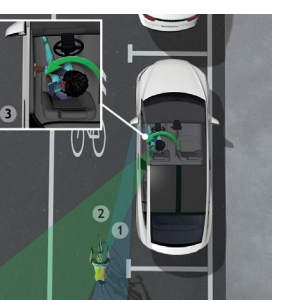
## Dooring



Dooring is the act of suddenly opening the door of a vehicle and striking a passing cyclist, causing the cyclist to fall or collide with another vehicle. Dooring also extends to accidents that result from a cyclist moving to avoid a door and falling or being hit by another vehicle.

Even though cyclists are particularly at risk, other road users may also be victims of dooring, including moped or scooter riders, motorcyclists or even other vehicles.

To safely exit the vehicle and prevent dooring, drivers should practise the Observe–Evaluate–Act sequence by checking the rearview mirror (1) and the blind spot (2) before opening their door.




Occupants can also exit a vehicle using what is known as the Dutch Reach to open the door with the hand furthest from the door (3).

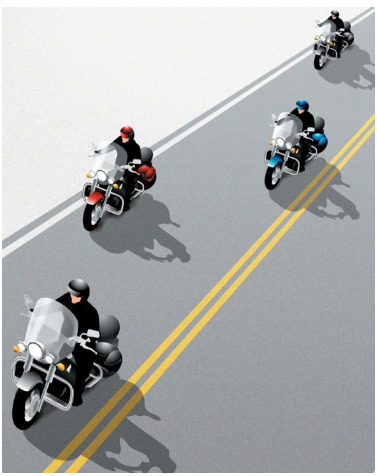
## With Moped or Scooter Riders

Moped or scooter riders are less visible due to the small size of their vehicle. Just like motorcyclists, there is a greater risk of injury than with other drivers since their vehicles do not have bumpers, seat belts or airbags to protect them.

Moped or scooter riders must obey the same traffic rules as other drivers. They are not required to drive on the side of the road as are cyclists. You must therefore be careful not to drive in their lane.

## With Motorcyclists

You must be cautious in the presence of motorcyclists. It is very difficult for drivers to judge the distance and speed of a motorcycle travelling in front of or behind their vehicle. Because of their size, motorcycles are sometimes hard to see. This is especially so when a motorcyclist is turning left. That is why it is important to respect their right-of-way.



Motorcycles have a surprising acceleration capacity. You have to be ready to predict motorcyclists' reactions.

Remember also that a motorcycle travelling at the same speed as another vehicle will have a shorter stopping distance, since its braking capability is greater. You must therefore never follow a motorcyclist too closely. Leave an even greater space than with a passenger vehicle to avoid hitting a motorcyclist who might brake suddenly.

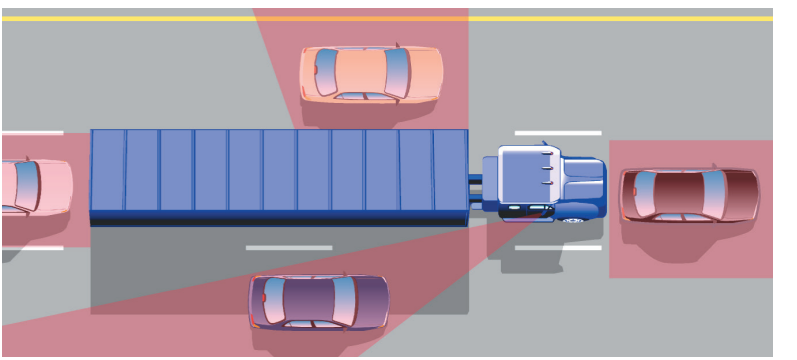
Just like vehicles, motorcycles are entitled to the entire lane. Do not therefore drive in their lane when passing them.

Motorcyclists who ride in a group adopt a zigzag formation for increased safety. Respect this type of formation and do not enter it.

## With Heavy Vehicles

The road is the workplace for drivers of heavy vehicles. Since they spend many long hours there, it is important to cooperate with them.

Certain manoeuvres, especially those by most heavy vehicles, i.e. tractor-trailers, need more space (for instance, turning at an intersection). They could overlap onto another lane. Cooperate by giving them the room they need to manoeuvre safely.



Because of their size and weight, heavy vehicles are slower to react and take more time to brake. In their presence, reduce your speed and keep a greater distance between your vehicle and the heavy vehicle. If you follow a heavy vehicle too closely, it will obstruct your view of the road. You may not have time to see a traffic sign, traffic light or an unexpected situation.

Make sure to stay out of the driver's blind spot and remain in that person's field of vision. To counter any displacement of air caused by a heavy vehicle meeting or passing your vehicle, be ready to correct your course. Remember that when the pavement is wet, the windshield can be splattered and this will reduce visibility. Turn on your windshield wipers before passing a heavy vehicle.

If a truck is blocking the road while backing into an entrance, be patient and wait for the lane to clear before continuing. If a truck driver is preparing to back up or go forward, you need to slow down, signal your presence, advance cautiously and stop, if necessary.

Keep a safe distance from heavy vehicles since objects may be ejected from the trailer, the tread of a tire could come off or a rock could be thrown by one of its tires, which could crack your windshield.



## Slow-Moving Vehicles

Slow-moving vehicles are those whose speed is 40 km/h or less. They have at the back, fluorescent orange warning signs with a red border.

Machinery pulled by tractors is often very wide and passing such vehicles can be difficult. Before making any move to approach such vehicles, slow down to make sure the way is clear over a sufficient distance. For instance, a slow-moving vehicle might turn into an entrance without signalling its intention. Since some of these vehicles are not equipped with turn lights, you should always be careful.

## Public Work Vehicles

Be especially patient when following a vehicle used for road maintenance. Slow down and avoid passing it. To do their work, especially in the winter, drivers of public work vehicles need space and time. These vehicles are not easy to drive due to their weight and heavy pieces of equipment. Moreover, they must travel at around 50 km/h to be effective.



In winter, passing a heavy vehicle can be very dangerous, since it is impossible to judge the road condition ahead of the vehicle and the snow flurry caused by passing.

## Vehicles Whose Width Exceeds Standards

When passing this type of vehicle, reduce your speed. Exceptionally, it is sometimes necessary to go onto the shoulder, after first verifying whether that option is safe. Then, you must:

- Reduce your speed again;
- Make visual checks;
- Signal your intention to go onto the shoulder;
- Pull back onto the road as soon as possible.

## With Buses

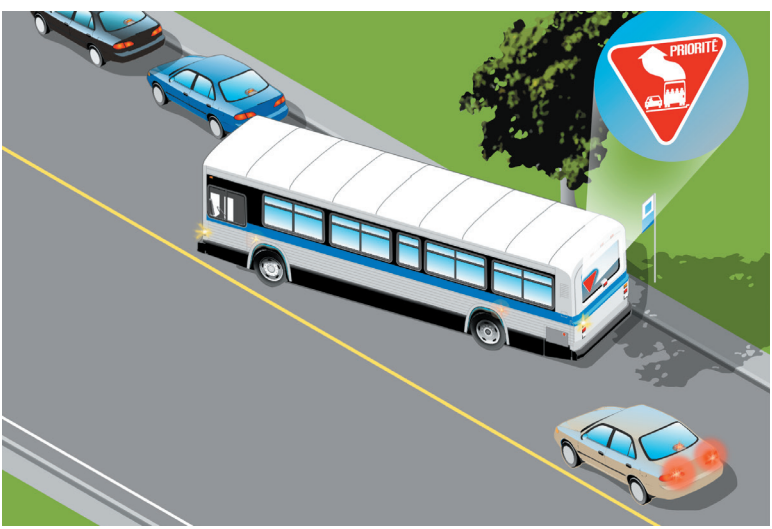
Bus drivers have requirements and rights that are different from those of a passenger vehicle driver:

- Right of way in reserved lanes (taxis and buses);
- Authorization to drive through a red light with a priority signal for buses;
- Authorization to drive on expressway shoulders.

You must exercise judgment and avoid manoeuvres that are reserved for buses.

When a bus stops, passengers may get off or on, or cross in front of your vehicle.

On a road where the speed limit is below 70 km/h, you must respect the bus's right-of-way. You must yield if the bus driver signals the intention to resume driving in the same lane.



## School Buses

Be prepared to stop your vehicle when you see a school bus. School buses must stop often to allow students on or off the bus.

To avoid having to suddenly brake or accelerate, the school bus driver who intends to stop the bus must notify other drivers. The driver will pre-signal a mandatory stop.

Keep in mind the following two steps:

- When the four alternating yellow lights or the hazard lights are activated, you must prepare to stop your vehicle;
- When the intermittent red lights are flashing or the stop sign is activated, you must completely stop your vehicle.

The *Highway Safety Code* requires drivers to stop more than 5 metres from a bus or minibus transporting students, whose intermittent red lights are flashing or whose stop sign is activated. They may meet or pass the bus only when the lights have stopped flashing and the stop sign is no longer activated. Before advancing, also make sure the road is clear.

All drivers must respect this mandatory stop even while driving in the same direction as a school bus on a two-lane, three-lane or multi-lane road.

The only time it is not mandatory for a driver to stop is when they are driving toward the school bus on a lane separated by a median or another divider.

## With Emergency Vehicles

Drivers of emergency vehicles (fire trucks, police vehicles, ambulances, etc.) are not required to respect road signs when their sirens or flashing lights are on. They are also authorized to pass other vehicles by using a lane reserved for oncoming traffic.

You must adapt your driving to respect the right of way of **emergency vehicles and not interfere with their manoeuvres**. As soon as you hear a siren or see flashing lights in your rearview mirror, you must make it easier for them to pass, so they can offer assistance more quickly, by doing the following:

- Free the lane for emergency vehicles;
- Stop, if necessary;
- Avoid accelerating or braking suddenly in front of them;
- Do not follow closely behind them;
- Do not try to follow them after their passage.

## With Vehicles Making Frequent Stops

Watch out for vehicles making frequent stops such as taxis, city or school buses and delivery, garbage or public work trucks.

## With Snowmobiles and All-Terrain Vehicles

Pay attention to road signs warning of snowmobile and all-terrain vehicle crossings. Beware also of snowdrifts that may conceal snowmobilers. In summer, snowmobile trails may be used by all-terrain vehicles. Therefore, it is always important to look out for these crossings.

## With Parked Vehicles

You should beware of the doors of vehicles parked at the side of the road. People may open the doors and come out quickly, without checking to see if other vehicles are passing. Special attention must also be paid to pedestrians who might cross between two vehicles.

Watch out for vehicles that are leaving the shoulder to re-enter traffic or those preparing to do so. Some drivers check their rearview mirrors without checking their blind spots. They will therefore not see if a vehicle is in that spot. Others forget to signal their intention. Finally, remember to pay attention to other users who could suddenly decide to make a U-turn.

When driving on a narrow road where vehicles are parked, look far ahead so you can more easily stay in the middle of the road and be ready for dangerous situations. That also enables you to see if people are getting out of parked cars.

## With Oncoming Vehicles

It is important to be very alert when oncoming traffic is heavy. Some drivers could move over slightly into your lane as they check to see if they can pass. Other drivers might have decided to pass and have misjudged the distance and speed of the vehicles in the next lane. It is also important to watch out for drivers who might have trouble getting back into their lane.

# ADAPTING YOUR DRIVING TO SPECIAL CIRCUMSTANCES

The next section presents different circumstances where drivers must adjust their driving and remain attentive.

## In a Parking Lot

Drive slowly and keep in mind that some vehicles may not necessarily be driving in the aisles designated for traffic.

## On a Narrow Street

Slow down on a street where the distance between vehicles passing each other is limited.

## On a Shared Street

A shared street is a street where pedestrians have the right of way. Road vehicles are also authorized on it.

- Speed limit is 20 km/h;
- Pedestrians can walk on it in every direction and cross the street at any place and at any time.

## On a Bike Street

A bike street is a street where cyclists have the right of way and can use the entire width of the lane. Road vehicles are also authorized on it.

- Speed limit is 30 km/h;
- A sign indicates the beginning and end of a bike street;
- Cyclists can use the entire width of the lane and ride side by side, except when riding against oncoming traffic.

## In a School Zone

In a school zone, the speed limit is 50 km/h unless a traffic sign indicates otherwise. For the safety of children, respect:

- The speed limit;
- The school crosswalks;
- The crossing guard's signals.

## In a Tunnel

When going through a tunnel, you must:

- Be cautious when entering and exiting, since your eyes need time to adjust to the darkness or light;
- Turn on your low beam lights;
- Keep a safe distance;
- Be prepared for the effect of high winds on driving when exiting the tunnel.



## Approaching a Bridge

Before crossing a bridge, you must:

- Be prepared for the road possibly being narrower on the bridge;
- Allow oncoming vehicles already on the bridge to get by if there is not enough room for both vehicles.

## Approaching a Railway Crossing

A railway crossing is announced by a sign that indicates the angle of the train tracks crossing the road.

Before crossing a railway:

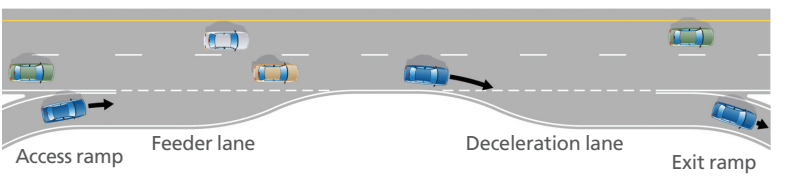
- Slow down;
- Look;

- Listen;
- Stop your vehicle when the red railway crossing lights are flashing.

Remember that buses, mini-buses and heavy vehicles transporting hazardous materials are required to stop at the crossing. If you are following one of those vehicles, be prepared to stop.

## Near Interchanges

Certain interchanges are composed of overpasses (viaducts) and underpasses linking two roads that are sometimes at different levels. They allow drivers to change roads without encountering oncoming traffic. Pay attention to road signs that indicate which lane to take. Most interchanges are entered and exited from the far right lane. Sometimes, however, they are entered or exited from the far left lane.




Watch out for other vehicles when the entry or exit lanes of an expressway cross over each other.

## In a Traffic Jam

Be patient and cooperate with other road users. Never drive on the shoulder unless it is indicated that you may do so. When a traffic jam is caused by an accident, be ready to act and, if necessary, to offer assistance.

## In an Agricultural Zone

Despite its size, agricultural machinery is allowed on the road. If it has an orange diamond-shaped sign, you can pass it even if the line is solid. You must be patient and very cautious, as this type of vehicle obstructs the view. If you cannot pass it safely, you must slow down, stay behind and wait for the right moment.

## In the Presence of Roadwork

Pay attention to the signs installed as you approach roadwork and construction sites. Observe the speed limit indicated on the orange sign, as you would for the white speed limit sign on a road.


Look far ahead to check whether there are any changes in traffic or if a part of the road is blocked. Due to the roadwork, a part of the highway might also turn into two-way traffic over several kilometres. Do not brake suddenly if you need to change lanes.

## In the Presence of a Flagperson

The flagperson directs traffic on a road where construction or maintenance work is being carried out. The flagperson uses an eight-sided sign with "Lentement" (Slow) indicated on one side and "Arrêt" (Stop) on the other.

- **"Arrêt" Sign**
  You must stop and wait for the flagperson to signal you to proceed.


- **"Lentement" Sign**
  You must slow down and proceed with caution. You must also maintain an adequate distance from the flagperson and not endanger people or vehicles on the site.


See the section entitled Road Signs in the *Driver's Handbook*.

## At Intersections

Be especially careful at intersections. They are particularly dangerous, especially those where two high-speed roads meet.

You must verify whether there are:

- Traffic lights;
- Flashing lights;
- Stop signs.

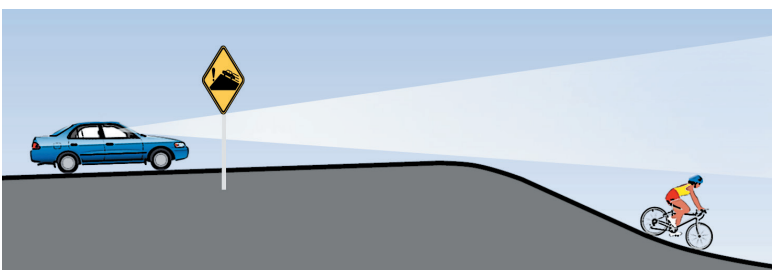
Speed limits are lower when approaching the intersection of two high-speed roads. Respect the right-of-way and always yield to vehicles already in the intersection.

Always cooperate with other road users. Remember that a right-of-way is not an absolute right and that caution is advisable at all times.

## When Going Uphill

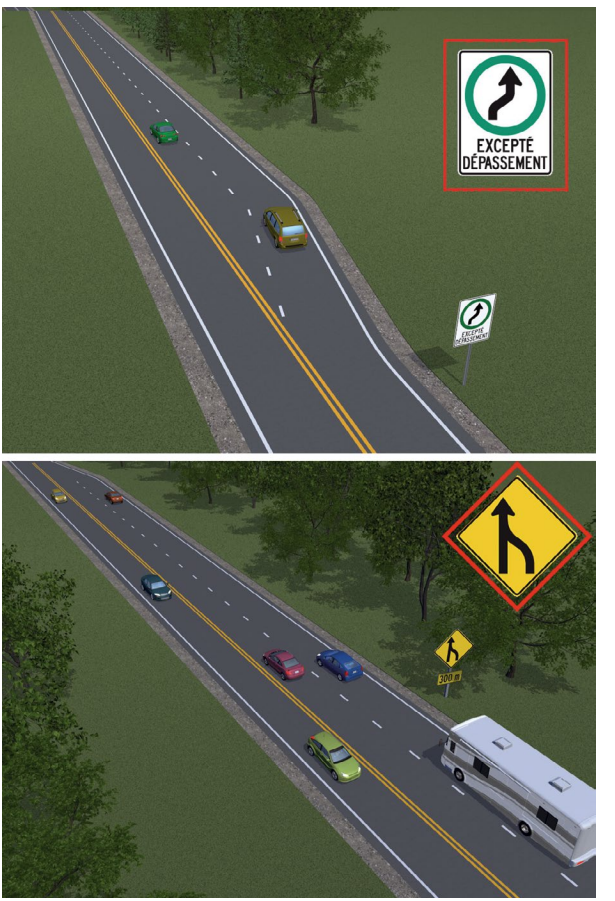
Steep hills prevent you from seeing vehicles approaching from the other side of the hill. Anticipate this by keeping right when climbing hills in case an oncoming vehicle is driving in the middle of the road.

Slow down before reaching the top of the hill since, on the other side, traffic may be slow, an obstacle may be in the road or a vehicle could be pulling out of a parking space. The sun or the headlights of an approaching vehicle may cause temporary blindness.



## In a Lane Reserved for Slow-Moving Vehicles

This lane allows slower vehicles to stay to the right so faster vehicles can use the left lane to pass. If a sign indicates that the road is becoming narrow once again, leave enough room for the vehicles from the right-hand lane to return to the main lane.



# SELF-EVALUATION EXERCISES

## Practical Exercises

Exercises on the road must only be done after having obtained your learner's licence. You must also be accompanied by a person who has held a driver's licence for at least two years.

1. Practise keeping a safe speed and distance by applying the two-second rule. Do the exercise while following a vehicle on a road with not much traffic.

   Repeat the experience changing the vehicle's speed and notice the difference.

2. Drive in areas with more traffic and adopt the appropriate behaviour when meeting pedestrians, cyclists, moped or scooter riders, motorcyclists, etc.

# Theorical Exercises

## True or False

**1. Indicate whether the following statements are true or false.**

| | True | False |
|---|---|---|
| a) Facilitating a manoeuvre is a means of communicating with another road user. | ☐ | ☐ |
| b) To facilitate the passage of an emergency vehicle, it is best to slow down in the lane in which you are driving. | ☐ | ☐ |
| c) You can follow a motorcycle more closely than any other type of vehicle. | ☐ | ☐ |
| d) Since a driver must concentrate fully on the road, pedestrians are completely responsible for their own safety. | ☐ | ☐ |
| e) You may only pass slow-moving vehicles bearing an orange triangle at areas designated for that purpose. | ☐ | ☐ |
| f) Safety rules for approaching snowmobile crossings should be applied in the summer as well as in the winter. | ☐ | ☐ |
| g) There are no blind spots on the sides of heavy vehicles. | ☐ | ☐ |
| h) The field of vision decreases as the speed increases. | ☐ | ☐ |
| i) Cyclists have the same rights and responsibilities as the drivers of a vehicle. | ☐ | ☐ |
| j) As a driver, you must make sure you do not cross over into the lane of a moped or scooter rider. | ☐ | ☐ |
| k) Driving in the blind spots of a heavy vehicle is safe. | ☐ | ☐ |
| l) Only buses make a mandatory stop at a railway crossing. | ☐ | ☐ |

## Who am I?

2. Here are my three components: perception time, reaction time and braking distance.

Answer: _____

# DRIVING STRATEGIES

5

Knowing how to recognize difficult situations helps drivers rapidly adjust their driving. Night driving, for instance, with its reduced visibility, has an impact on driver reaction time.

Some weather conditions also increase driving risks. In winter, tire traction is reduced, making it necessary for you to adjust your driving.

When unexpected situations arise, such as mechanical problems, drivers must have strategies to stay out of trouble.

This chapter therefore presents the main characteristics of such situations and proposes driving strategies for dealing with them.

# DIFFICULT CONDITIONS

## Night Driving

At night, vision is affected by a reduction in natural light. Headlights cannot make up for the lack of daylight. Contrasts are reduced, modifying the perception of depth and movement. As a result:

- Colours seem to be partially lost when lit up by headlights at night;
- Movements are harder to see;
- Stationary objects are hard to distinguish in the darkness, making it harder to judge distances;
- Obstacles may be seen too late.

When you come within 150 metres of another vehicle, either the one approaching you or the one you are following, you must lower the intensity of your headlights.

To read the road well, it is important to look beyond the range of the headlights, i.e. what is lit up by their projection. You must also adopt specific strategies at night.

### Reduce Your Speed

Darkness reduces your field of vision. The higher your speed, the more your field of vision is reduced.

You must therefore reduce your speed so you can brake over a shorter distance than the range of your vehicle's headlights.

## Increase the Distance Between You and the Vehicle in Front

It is harder to judge distances in darkness. You must therefore maintain a greater distance from the vehicle in front of you. That gives the necessary safety margin to avoid any obstacles.

## Keep Your Windshield Clean and in Good Condition

A windshield that is dirty inside or out reduces visibility. The eyes tire faster, especially in poor weather. A cracked windshield will reduce visibility even more and add to the discomfort of the eyes.

## Maintain Proper Lighting

You must keep your vehicle's headlights and other lights clean to stay visible and better light the road. Ensure that both headlights work properly so oncoming vehicles will not mistake your vehicle for a motorcycle.

## Avoid Staring at the Headlights of Other Vehicles

Staring at the headlights of other vehicles can blind you and affect your vision for several seconds, the time it takes for your eyes to adjust completely to the darkness. To avoid temporary blindness:

- Look more toward the side of the road when another vehicle is passing;
- Slow down if oncoming headlights are blinding.

## Avoid Blinding Other Drivers

To do so:

- When you are being passed: switch to your low beams as soon as the passing vehicle arrives beside you. Switch to high beams once the other driver is more than 150 metres in front of you;
- When you meet another vehicle: use low beams as soon as the headlights of the oncoming vehicle are visible;
- When following a vehicle: switch to low beams;
- When passing another vehicle: switch back to high beams once you are beside the vehicle you are passing.

# Temporary Blindness (Glare)

Temporary blindness, also called glare, may affect your vision for several seconds, in which case your vehicle may travel a certain distance before your eyes have time to adjust. Objects offering little contrast, e.g. the edge of a sidewalk, become harder to see.

The sun and the headlights of other vehicles are well known causes of temporary blindness, but there are others.

In the case of temporary blindness, allow enough time for your eyes to adjust before speeding up again.

## Raindrops, Snowflakes and Fog

When it is rainy, snowy or foggy, the headlights of other vehicles can be a source of temporary blindness, also called headlight glare. To avoid being blinded, use low beams, or in fog, fog lights.

## Windshield Condition

A greasy film may build up on the inside of the windshield and side windows, especially if someone smokes in the vehicle. This may increase glare and visual fatigue so it is important to keep the windshield clean both inside and out.

## Lights Inside the Vehicle

To avoid the risk of temporary blindness, no lights should be on inside the vehicle, except those on the dashboard, which should be dimly lit. In the city, their intensity can be increased. However, on a dimly lit or dark road, you can lower their intensity.

**STRATEGY**

- Avoid looking directly into the headlights of oncoming vehicles;
- Look toward the side of the road when another vehicle is passing;
- Be especially careful when leaving a well-lit area while your eyes adjust to lower light;
- Slow down more if the headlights of oncoming vehicles are blinding you.

# Weather Conditions

When road conditions deteriorate due to poor weather, reduced visibility increases the risk of skidding. Avoid speeding up or slowing down too quickly and, above all, avoid braking suddenly. Maintain a greater distance between your vehicle and the one in front of you.

## Rain

Heavy rain will affect your ability to observe. You will have less information on which to base your decisions. A greater braking distance is required on a surface made slippery by rain combining with other materials. In addition, it may be harder to see far ahead and to keep your vehicle stable.

On newer vehicles, front headlights come on automatically when the vehicle is started, but at a lower intensity. Turn on low beams for greater safety.

**STRATEGY**

- Reduce your speed;
- Increase the distance between between your vehicle and the one in front of you;
- Do not make any sudden moves, since traction is reduced;
- Drive with your low beams on, even in daylight;
- Scan the road more often and more attentively;
- If necessary, use the lights of other vehicles in front of you as a guide;
- Keep your windshield wipers in good condition.

## Fog or Mist

Fog reduces your ability to be seen and partially hides road and traffic conditions. Headlights can create a bright screen in front of the vehicle, making driving much more difficult. Your vision could even be reduced to just a few metres. When visibility is less than the braking distance, you risk hitting an obstacle or being hit yourself from behind.

Fog lights are installed as low as possible on the front of the vehicle under the regular headlights. Moreover, they should be adjusted so as not to blind other drivers.

**STRATEGY**

- Reduce your speed enough so you can stop in the distance lit up by your headlights;
- Increase the distance between your vehicle and the one in front of you;
- Use low beams, which offer better visibility than high beams;
- Scan the road more often and more attentively;
- Use the lines on the road as a guide;
- Indicate that you are slowing down by pumping the brakes, i.e. by gently pressing the brake pedal on and off;
- Avoid sudden stops;
- Use windshield wipers and the defroster, if necessary;
- Roll down your window slightly if it is fogged up;
- If necessary, use the lights of other vehicles in front of you as a guide.

Avoid guiding yourself solely with the lights of the vehicle in front of you. If the other driver leaves the road, you may lose your bearings.

You should not drive with fog lights alone when headlights are required, e.g. at night.



It is illegal to drive on the shoulder of the road. In fog, the risks of colliding with another vehicle or hitting a pedestrian are greatly increased.

If fog is very thick, stop in a safe place to wait for it to lift and turn on your hazard lights. It is preferable to turn on the hazard lights rather than leave on your headlights. That could mislead other drivers who might think your vehicle is still on the road.

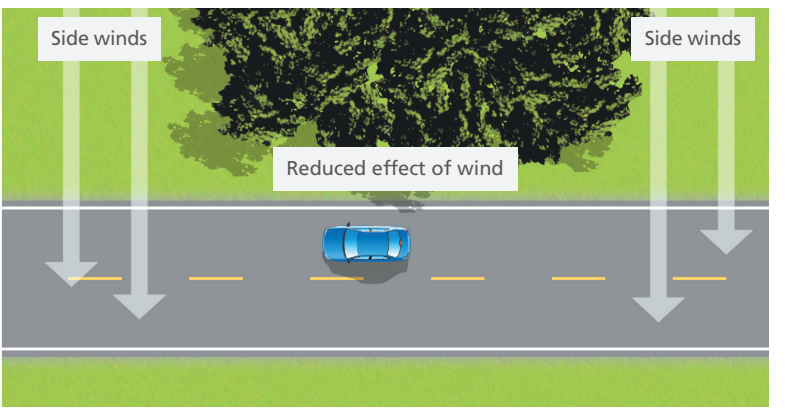
## Strong Winds or Air Displacement Caused by Heavy Vehicles

Lateral winds, gusts or squalls and air displacement caused when meeting or passing heavy vehicles can be very dangerous. They can make your vehicle unstable and even displace a smaller vehicle. Reduce your speed and be prepared for the effects of the wind, especially:

- When entering or exiting a tunnel;
- When passing on a bridge or under an overpass;
- In a mountainous region.

**STRATEGY**

- Reduce your speed;
- Increase the distance between your vehicle and the one in front of you;
- Keep a firm grip on the steering wheel to hold your course on the road and compensate for the effects of air displacement caused by heavy vehicles;
- Drive slightly more to the right in your lane. On an expressway, use the lane closest to the shoulder;
- Avoid passing unless absolutely necessary.




Vehicles with under-inflated tires and shock absorbers in bad condition, small vehicles and light vans are more likely to be affected by gusting winds. Vehicles with luggage on the roof or pulling a trailer also need to be driven with special care.

Be very alert in the presence of motorcyclists and moped or scooter riders. They may move involuntarily since they are the ones most affected by gusting winds or the air displacement caused by heavy vehicles.

# Dangerous Surfaces

## Slippery Surfaces

When it rains, the water combines with dust, oil and other materials found on the dry road to create a mixture that makes the road slippery and dangerous. This is especially true when it first begins to rain, since the oil and other residues rise to the surface and combine with the water. Although they disappear a few minutes later, their concentration is still higher during the first few minutes. This is also the time the tires have the least road traction. The lighter the rain, the longer it takes for these substances to wash off the road.

In certain conditions, it may be dangerous use the cruise control. For instance:

- On steep hills;
- On snowy or icy roads;
- On gravel or any other slippery surface;
- On winding roads or in heavy traffic.

Avoid using the cruise control when you cannot drive safely at a constant speed.

**STRATEGY**

- Reduce your speed, since the maximum speed limits are only valid under normal conditions;
- Increase the distance between your vehicle and the one in front of you to keep a longer braking distance;
- Avoid sudden changes in direction or speed that could make the vehicle skid.

The risk of skidding is greater when the vehicle is equipped with wide, under-inflated or worn tires.

When heavy rain creates sheets of water on some areas of the road, this may cause hydroplaning. It is a form of skidding and occurs when the tires momentarily fail to adhere to the road surface. For strategies on how to control a skidding vehicle, consult the hydroplaning section further in this chapter.

## Damaged Road Surface

It is preferable to go around a deep hole or major bump if you can do so safely. If not, try to control your vehicle and keep damage to a minimum.

**STRATEGY**

- Slow down before crossing a damaged surface;
- Turn on the hazard lights, if necessary;
- Go over the damaged surface slowly, without braking;
- Return to normal speed;
- Turn off the hazard lights.

If you cannot slow down fast enough before a hole or a bump:

- Brake as much as possible;
- Stop braking just before the hole or bump;
- Disengage the transmission;
- Turn on the hazard lights;
- Keep a firm grip on the steering wheel to cross the damaged surface;
- Engage the transmission;
- Return to normal speed;
- Turn off the hazard lights.

This procedure is riskier than the previous one. It is therefore a good idea to stop the vehicle to inspect it before continuing on your way. Always remain attentive to vibrations or unusual noises that could occur.

### Gravel and Dirt Roads

For better visibility on gravel and dirt roads, keep a good distance between your vehicle and the one in front of you. If you follow too closely, a rock could be thrown into your windshield and damage it.

## Winter Driving

Québec winters are variable and unpredictable, and to get through them safely, you should put all the chances on your side. Winter driving requires good adjustment to conditions and excellent anticipation of situations.

## Preparing Your Vehicle

Rough winters can take a toll on your vehicle. A good tuneup is necessary at the start of the season. You should check:

- Windshield wipers, heating system and defrosters;
- Windshield washing fluid level;
- Brake fluid, power steering fluid and anti-freeze;
- Motor oil and transmission fluid;
- Tire condition, including spare tire;
- Electrical and lighting systems;
- Headlights, signal lights, hazard lights and horn;
- Belts, brakes, battery and alternator.

Also lubricate the rubber strips around the doors and trunk with a suitable product.

Oil locks to prevent freezing. If a lock freezes anyway, squirt a silicone-based lubricant or de-icer into the lock. You can also heat the key with a match or a lighter before putting it into the lock.

## Normal Precautions

### Winter Tires

In Québec, it is indispensable to equip your vehicle with four winter tires rather than with all-season tires, since it has been proven that they greatly reduce the average braking time.

Winter tires provide better traction. The grooves on the tread are roughly 30% deeper than those on all-season tires. Accumulated snow is therefore evacuated more quickly. The rubber is also more flexible and maintains its elasticity up to -40°C. In comparison with winter tires, all-season tires start to harden and lose their elasticity and their traction between -8°C and -15°C.

To make sure your tires are in good condition, inspect the depth of the tread.

Check the air pressure in your tires every time the temperature outside changes dramatically, for instance, when it goes from 10°C to -10°C in a short time. In cold weather, the air pressure in tires is reduced, increasing drag caused by snow or melting snow. Regularly checking the air pressure in your tires can reduce fuel consumption.

## Gas Tank

Fuel consumption can increase by 50% in cold weather. The engine takes longer to reach its normal operating temperature, i.e. the temperature at which it runs at peak performance.

In cold weather, keeping your gas tank full is recommended. It prevents condensation. Leaving the vehicle stopped for several hours also causes water build-up in the tank, especially when extreme changes in temperature occur.

If the cold snap continues, add fuel-line anti-freeze to the gasoline.

## Seeing Clearly

Before driving away, always clear snow or ice from the windows, roof and hood of your vehicle. Also make sure that nothing can come loose and separate from your vehicle (snow, ice, etc.) while you drive. It is not only common sense, it is mandatory!

Choose winter windshield wipers and, before setting out, lift them to make sure they are not frozen onto the windshield. Clean the space between the hood and the bottom of the windshield to prevent ice or hardened snow from blocking their movement.

Windshield wiper sprayers can freeze while your vehicle is parked and then block. To prevent melted snow from turning into ice, turn on the sprayers once or twice before turning off the engine.

Wait for your windows to defrost or defog before setting out.

## Headlights and Other Lights

Before setting out, always clear snow away from headlights, signal lights and reflectors. Snow must also be cleared off the rear hatch, trunk and licence plate. For long trips, stop occasionally to clear the snow off headlights and other lights.

## Under Fenders

Remove snow, ice or slush accumulated under the vehicle's fenders. The ice found under fenders can interfere with steering.

## Brakes

If the brakes do not work as well as usual, pump the brake pedal a few times while driving.

It is important to remove the snow from your footwear to better feel the brake pedal and, therefore, to better control the brakes. If you use newspapers or a rubber mat, make sure they do not block the pedals. You should be able to reach the pedals easily and they should work well at all times.

## Driving Cautiously

See the owner's manual for the steps to follow before starting the vehicle.

Make it your business to find out about road conditions. Driving and controlling the vehicle may be difficult in the following conditions:

- Near-freezing temperatures;
- Roads with a thin layer of black ice or icy patches, especially in shady places, e.g. beside a building, under trees, and under or on a bridge or an overpass;
- Intersections where snow has been packed down by passing vehicles.

In very cold weather, it is a good idea to warm up the vehicle before setting out. A few minutes are enough, since the engine, gearbox, axles, tires and suspension only warm up once the vehicle is moving. The best way to warm them up is to drive the vehicle without any rapid acceleration for the first 5 km or until the engine temperature gauge starts to rise.

**STRATEGY**

- Turn the steering wheel so as to straighten out the front wheels;
- Accelerate slightly until the vehicle starts to move;
- If the tires spin, release the accelerator and press it more gently;
- Accelerate slightly until the vehicle starts to move.

With a standard transmission, ease up on the clutch pedal while you press gently on the accelerator. You can also place the gearshift lever in second gear.

In cold weather, use a block heater. It heats up the motor oil, makes starting easier and allows engine parts to reach their peak operating temperatures, thereby reducing fuel consumption and greenhouse gas emissions.

Motor oil does not freeze when the temperature drops below 0°C, but it becomes thicker. Since the engine must work harder, it consumes more fuel.

Use a timer to turn on your vehicle's block heater two hours before driving, which is long enough. Proper use of a block heater allows you to save close to 10% on fuel consumption.

Be careful not to leave the block heater on all night, since you will increase your electricity bill.

## Snowy or Icy Surfaces

On a slippery surface, be even more careful. Abrupt changes in direction can cause you to lose control of your vehicle. Be especially cautious on turns, curves and when changing lanes. Before changing direction, slow down more than usual.

**STRATEGY**

- Slow down and ease up on the accelerator;
- Avoid braking;
- Straighten out the front wheels.



On a slippery surface, avoid abrupt changes in speed. Changing to a lower gear too quickly can cause you to lose control of the vehicle when your speed is not low enough.

## Climbing Hills

The following technique applies only to steep hills or long, icy slopes.

**STRATEGY**

- Pick up as much speed as possible, while obeying the speed limit, before reaching the hill;
- Gradually ease up on the accelerator if the tires spin.

If this technique does not work, use the transmission:

- With an automatic transmission: shift to a gear that will prevent the engine from moving to a higher gear while climbing. In other words, if you are in drive (*D*), the transmission could automatically shift gears, which could prevent you from climbing the hill. It is better to shift into second gear. That will prevent the engine from shifting into third, regardless of the vehicle's speed;
- With a standard transmission: choose a gear that will get you all the way up the hill without having to gear down.

If poor tire traction prevents a vehicle from climbing a snowy hill, you will have to back up. It is important to do so safely, taking into account any vehicles behind you or approaching you.

**STRATEGY**

- **With an automatic transmission**: shift into neutral (*N*);
- **With a standard transmission**: press the clutch pedal;
- Brake to control the vehicle's speed;
- Back into a driveway, if that is possible, to turn around;
- Never use the parking brake during this manoeuvre.

### Going Downhill

The following technique should be used for very slippery surfaces. The trick is to maintain a constant speed that will allow you to stop while descending.

**STRATEGY**

- Slow the vehicle down to a safe speed before starting down the hill;
- If necessary, pump the brakes to maintain a constant speed all the way down the hill.



When tire traction is poor, shifting to a lower gear could lock the drive wheels. You could lose control if you have a vehicle with frontwheel drive (traction) or spin around if you have rear-wheel drive (propulsion).

## Stopping and Parking

Snowy or icy surfaces require a greater braking distance than a dry surface. Be especially careful of black ice that often looks like a wet surface. Leave a greater distance in front of your vehicle.

**STRATEGY**

- Ease up on the accelerator leaving the vehicle to move forward on its own so the engine itself will help the vehicle come to a gradual stop;
- With a standard transmission, avoid shifting to a lower gear until the vehicle has slowed down enough;
- Brake slowly;
- If one wheel locks, release the brakes briefly and brake again.

When the engine is cold and you are driving at low speed on a slippery surface, it is easier to control braking by shifting into neutral (*N*) to stop the vehicle.

## Emergency Braking

When you must brake over a short distance, keep control of your vehicle.

**STRATEGY**

With an automatic transmission, shift into neutral (*N*) or with a standard transmission, press the clutch pedal;

- Repeatedly press on the brake pedal, i.e. pump the brakes to lock and unlock the four wheels. If the vehicle is equipped with an anti-lock braking system (ABS), press the brake pedal to the floor and let the ABS system do the work.



Braking too suddenly can cause the same locking effect. If the wheels remain locked, you could lose control of the vehicle and skid.

## Anti-Lock Braking System (ABS)

This system, which prevents wheels from locking, ensures better control of the vehicle. You must however avoid pressing on the brake pedal often, since the stopping distance will be much longer. Instead, keep a firm and regular pressure on the brake pedal to avoid skidding and losing control of the vehicle.

For emergency braking, press the brake pedal to the floor and hold it firmly. It is normal to hear noises and feel the vibrations of the anti-lock braking system doing its work.

## Parking

Parking your vehicle so you can leave the parking space by driving forward provides better visibility. It also allows you to enter traffic without having to stop in the middle of the road.

However, if the vehicle is parked in a garage or carport, park your vehicle so you can back out of the parking space. That prevents exhaust from accumulating in the garage or the carport, which could be dangerous to your health.



Never leave the engine running in a closed place to prevent the risk of asphyxiation.

## Vehicle Stuck

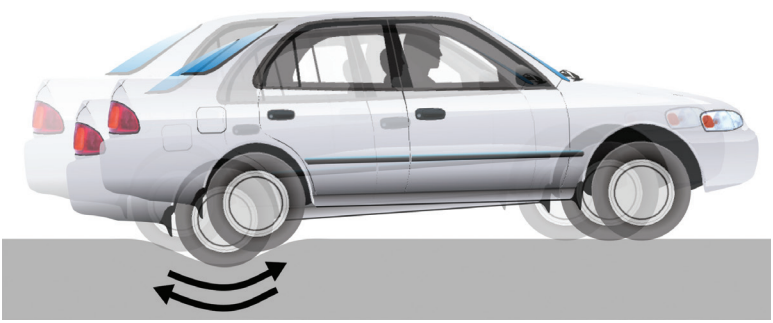
There are different ways of driving a vehicle that is stuck in the snow.

**STRATEGY**

- Clear the wheels with a shovel;
- Before driving the vehicle, turn the wheels first to one side and then to the other to remove the snow;
- Turn the steering wheel to line the front wheels up with the back ones and accelerate slowly;
- Avoid spinning the tires. That can cause ice to form or ruts to deepen;
- If necessary, apply the rocking technique while keeping the front wheels lined up with the back ones. The technique is described further on;
- Avoid revving the engine; this could damage the transmission;
- If necessary, use traction aids while being careful that they are not thrown by the wheels.

## Getting Out Without Traction Aids

This method makes it possible to get the vehicle out without traction aids.



**STRATEGY**

- Shift into a forward gear or reverse as need be;
- Accelerate slowly to prevent the wheels from skidding if possible. It is best not to let a wheel spin too long. Manufacturers generally do not recommend accelerating beyond 55 km/h.

**Try another method if this does not work after a few short attempts.**

## Rocking Technique

This method consists of a rocking movement.

**STRATEGY**

- Line the front wheels up with the back ones;
- Shift into a forward gear;
- Accelerate slowly to prevent the wheels from skidding or the engine from revving;
- When the vehicle stops moving forward, apply the brakes;
- Shift into reverse;
- Accelerate slowly;
- When the vehicle stops moving backwards, apply the brakes;
- Repeat steps, if necessary;
- Shovel to remove snow accumulated near the wheels.

## Getting Out With Traction Aids

To prevent traction aids from being thrown by the wheels, each of the vehicle's wheels must be touching the ground.

**STRATEGY**

- Line the front wheels up with the back ones;
- Place a traction aid in contact with each drive wheel. Put the traction aids in front of the vehicle if moving forward, and behind if backing up;
- Move people away from the vehicle in case one of the traction aids is thrown by a wheel;
- Shift into a forward gear or reverse;
- Accelerate slowly until the vehicle is clear;
- Try again, if necessary;
- Remember to retrieve and put the traction aids away.

If you do not have traction aids, put sand or salt on the ground to create tire traction.

If these methods do not work, you need to consider having your vehicle towed.

## In a Snow Storm

If you are stuck in a snow storm:

- Stop your vehicle in a safe place;
- Turn on the hazard lights;
- Install warning devices, at around 30 metres in front of and behind the vehicle;
- Avoid leaving the vehicle, remain calm and wait for help;
- Avoid exposure to the cold or extenuation;
- Turn on the engine and heating system, 10 minutes every hour, making sure the hazard lights and exhaust pipe are clear;
- When the engine is on, lower your window a little to avoid carbon monoxide poisoning. This gas is difficult to detect because it is odourless and colourless. When inhaled, it can cause death;
- Protect yourself to avoid hypothermia, i.e. a lowering of the body temperature below its normal temperature.

If you stay stuck for an extended period of time, move to avoid going to sleep. Sleep and intense cold can cause death.

# EMERGENCY SITUATIONS

One day or another, even cautious drivers may encounter an emergency. Then, you will need to know more than just driving manoeuvres to deal with the situation. Rapid use of your technical skills, combined with your knowledge and judgment and your ability to see clearly and predict events, will help you be prepared to react quickly and well.

For instance, a tired driver will take longer to evaluate a situation and will not react as fast as when rested. This is also true of someone who has trouble mastering the braking technique, who will react less effectively in these situations.

There are strategies to handle the most frequently encountered emergencies such as mechanical problems, obstacles and complex manoeuvres. To develop indispensable automatic responses for when the time comes, you must:

- Recognize emergency situations;
- Know the basic strategies so you are not caught off guard;
- Master driving techniques.

As a result, reaction time could be shorter, allowing you to avoid a collision and even injuries.

In all situations requiring a change in direction or where there is a danger of collision, you must perform the following basic manoeuvres:

- Look in your rearview mirrors;
- Check the blind spots;
- Signal your intentions.

You can also use your hazard lights to make your vehicle more visible to other road users.

It is important to emphasize that these basic manoeuvres are always required even though, to lighten the text, they were not written in each of the strategies that follow.

# Mechanical Problems

## Vehicle does not start

- Avoid turning the starter switch for too long so as not to run down the battery. For electronic fuel-injection systems, the key should be in the *On* position to avoid flooding the engine;
- Turn the starter switch for 10 seconds at a time, leaving approximately 15 seconds between attempts to prevent overheating the engine.

## Engine stalls when vehicle is being driven

- Disengage the transmission by shifting into neutral (*N*);
- Turn the key in the ignition once or twice ensuring that the key stays at *On* or *Start*;
- Make sure the key is not in any other position, i.e. *Lock*. If not, the steering wheel will lock and you could lose control of the vehicle.

When unsure, it is best to park the vehicle on the shoulder of the road and try these strategies calmly instead of starting the engine up again while the vehicle is moving.

*If the engine starts up again while the vehicle is moving:*

- Re-engage the transmission. With a standard transmission, it might be necessary to shift to a lower gear if the vehicle has slowed down enough to allow it;
- Accelerate, if necessary.

*If the engine does not start up again:*

- Expect the steering and brake pedal of a vehicle with power steering and power brakes to become hard to handle.

*If the attempts to start up the engine again do not work:*

- Go to the side of the road, using the vehicle's momentum to get it off the road.

## The accelerator is jammed

- Keep you eyes on the road;
- Tap the accelerator with your foot;
- Lift the pedal with your foot;
- Brake, disengage the transmission, shifting into neutral (*N*) to stop the car;
- Brake again, if necessary;
- Park the vehicle at the side of road as soon as possible.

To avoid damaging the engine, turn it off as soon as the vehicle is stopped. If it is impossible to stop the vehicle, turn the key to *Off.* The engine will also be cut but the engine and steering wheel will not be locked.

*If the accelerator seems stiffer than usual or sticks:*

- Have it repaired as soon as possible to avoid a dangerous situation.

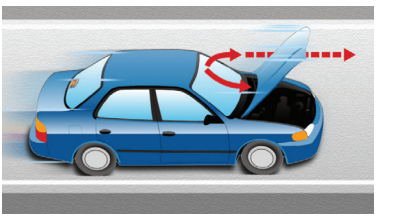
## Hood opens while driving

- Lean over to peer through the space at the bottom of the windshield;

**or**

- Lean your head toward the door to look through the space to the left of the hood;

- Brake and go to the side of the road to stop.



*If the locking mechanism is damaged, before setting out:*

- Tie the hood down with a rope or wire;
- Drive slowly to the closest garage making sure the hood remains closed.

## Steering has failed

- Keep a firm grip on the steering wheel;
- Brake and go to the side of the road to stop.

When the power steering system is not working, the physical effort necessary to turn the vehicle depends on the vehicle's weight. The heavier the vehicle, the harder the steering wheel is to turn. Also, the slower the speed, the harder the vehicle is to turn.

*If your vehicle's power steering system is not working, and it is possible to turn the wheel:*

- Drive slowly to a garage.

*If you can no longer control the vehicle:*

- Brake to come to a stop on the side of the road.

## Windshield wipers are defective

- Try to get them working by changing the position of the wiper control several times;
- Brake and go to the side of the road to stop;
- Check the fuses.

If the wipers cannot be repaired on the spot and if the rain and the snow persist, the vehicle should be towed.

## Brakes fail while driving

- Pump the brake pedal several times without locking the wheels;
- Turn on your hazard lights to warn other road users;
- Gradually engage the parking brake without locking the wheels and keep the mechanism in the unlocked position:
  - **Pedal parking brake**: pull the brake lever out and hold it;
  - **Manual parking brake**: push in the button that unlocks the brake and hold it with your thumb;
  - **Sliding parking brake**: turn the handle and hold it in that position;
- Stop the vehicle on the side of the road.

*If the parking brake does not work either:*

- Find another means of stopping the vehicle, e.g. the shoulder of the road or an open space;
- Look for obstacles such as bushes, hedges, snow banks or curbs to stop the vehicle.

## Headlights go out

- Keep your vehicle in its lane;
- Turn on the hazard lights immediately to make your vehicle more visible to other road users;
- Sound the horn, if necessary;
- Slow down as quickly as visibility permits;
- Look for pavement markings or objects to use as a guide;
- Turn the high beam switch on several times to try to make the headlights come on;
- Turn the headlight switch on if the headlights have not come back on.

*If the headlights come on:*

- Return to normal speed;
- Stop in a safe place to find the cause of the problem.

*If the headlights do not come on:*

- Go to the side of the road and stop as soon as it is possible to do so;
- Stop as far from traffic as possible if you cannot turn on your hazard lights or place warning devices around the vehicle.

## Exhaust pipe comes off

A broken exhaust system may damage damage the vehicle and parts falling off on the road may become hazards for other road users. If that occurs:

- Slow down gradually;
- If driving onto an unpaved or uneven shoulder, proceed slowly so the exhaust pipe does not get stuck in the ground;

- Stop and remove or firmly secure the broken part. Be careful since the exhaust pipe is usually very hot;
- Have the exhaust pipe repaired as soon as possible.

### Tire blows or wheel breaks

In these situations, it could become very difficult to control the vehicle:

- Keep a firm grip on the steering wheel;
- Maintain constant speed and do not brake until you have complete control over the steering;
- Ease up on the accelerator;
- Brake gently once you have slowed down enough;
- Go to the side of the road when possible and come to a stop.

### Driving with a spare tire after a flat

If the spare tire is designed only for emergencies, consult the owner's manual to find out how to use it properly.

Since this tire is smaller than the others, there are a few general recommendations for driving with it:

- Do not overload the vehicle;
- Do not pull a trailer;
- Do not exceed 80 km/h;
- Avoid abrupt changes in speed or direction;
- Check the amount of space under the vehicle when driving on uneven ground;
- Replace it with a regular tire as soon as possible.

# Obstacles

## Animals



In wooded areas, signs indicate the presence of wild animals. The animals may run onto the road, cut into traffic and sometimes cause serious accidents. You must always pay attention, especially at night, since they are attracted by vehicle headlights.

Deer, moose and caribou are dangerous because of their size. Exercise caution if a deer crosses the road, since they rarely travel alone. Small animals can also cause an accident, since they can startle you and make you lose control of your vehicle.

Every year, over 7,000 road accidents are caused by deer, moose, caribou and black bears.

## In an Area at Risk for Animals

**STRATEGY**

- Pay special attention to signs indicating the presence of animals;
- Stay alert especially on highways in wooded areas;
- Be especially careful in places where visibility is reduced because of a curve, a hill or where vegetation is thick along the road;
- Be especially careful early in the morning, at dusk and in the evening, especially during the months of May, June, October and November.

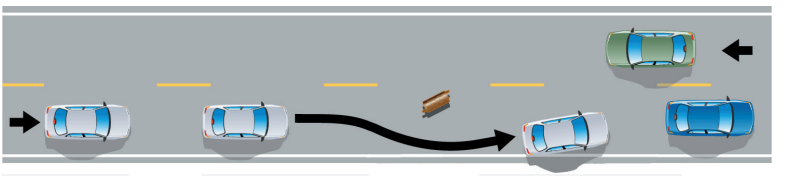
## If you Meet an Animal on the Road

**STRATEGY**

- Slow down and pump the brakes to alert drivers behind you;
- Sound your horn, which could make it flee and get it away from the road;
- Ultrasonic whistles, used by some professional drivers, may be a good choice to keep animals away.

## Obstacles on the Road

Should an exhaust pipe or branch lie across the road, rapidly evaluate the situation and decide whether it is best to drive over the object or around it.



Slow down | Ease off brakes | Go around obstacle

To avoid an obstacle:

- Brake to slow down as quickly as possible;
- Look for an alternate direction to head in;
- Look toward the area where you have chosen to steer the vehicle;
- Ease up slightly on the brake pedal to avoid locking the wheels;
- Turn the steering wheel so the vehicle goes in the desired direction.

While changing direction, the vehicle may skid. Control the skid before changing directions again or coming to a stop.

# Complex Manoeuvres

## Emergency Stop

The following procedure involves braking to the point just before the wheels lock. It is the most effective stopping method, but takes practice to master. It is only used with a vehicle that does not have an anti-lock braking system (ABS).

**STRATEGY**

- Place your foot over the brake pedal as soon as you decide to brake;
- Push the pedal down rapidly, applying as much pressure as possible without locking the wheels;
- Ease up on the pedal to maintain maximum braking as the vehicle slows down;
- If the wheels begin locking, quickly let up a little more on the brake pedal to avoid losing control of the vehicle;
- Press harder on the pedal to keep the vehicle from moving once it has come to a full stop.

Keeping your brakes in good order is essential for safety. It also makes it possible to save on fuel. Worn brakes can "stick", i.e. not disengage completely when the foot is removed from the brake pedal. That forces the vehicle to work harder and burn more fuel.

## Two Wheels on the Shoulder

When you are in a situation where both wheels of the vehicle are on the shoulder, you must react quickly.

**STRATEGY**

- Keep a firm grip on the steering wheel, since the vehicle may tend to turn or zigzag if the shoulder is not paved or level with the road surface;
- Bring the vehicle parallel with the road, i.e. in a straight line;
- Ease up on the accelerator;
- Allow the vehicle to slow down without braking;
- Turn the steering wheel toward the middle of the road. Unless the wheels are stuck on the edge, the vehicle should return to the road with no problem;
- Turn the steering wheel in the opposite direction as soon as the front wheel returns to the road surface. Try not to go beyond the lane you are entering;
- Accelerate to normal speed.

## Controlling Skids

To avoid skidding, for instance when it is raining, you need to slow down in the first few minutes of a shower, since the residues accumulated make the road surface slippery. Excessive speed and sudden movements can also cause skidding.

## Front-wheel or Rear-wheel Skid

This rapid manoeuvre makes it possible to re-establish traction with the road surface;

| Skid | Cause | Strategy |
|---|---|---|
| Front wheels | Acceleration | ▶ Turn the steering wheel to point the vehicle in the desired direction as soon as you realize the vehicle has started to skid. This rapid manoeuvre makes it possible to re-establish traction with the road surface;<br>▶ Ease up on the accelerator until the wheels regain traction. The front wheels may lose contact with the road without affecting the vehicle's direction. This is true, among other things, when hydro-planing (see following section);<br>▶ If necessary, press gently on the accelerator. |
| Front wheels | Braking | ▶ Turn the steering wheel in the desired direction;<br>▶ Release the brake;<br>▶ To slow down, brake again but do so more gently to avoid locking the wheels. |
| Rear wheels of a vehicle with front-wheel drive | Braking | ▶ Turn the steering wheel in the desired direction;<br>▶ Release the brake to regain control. |
| Rear wheels of a vehicle with rear-wheel drive | Acceleration | ▶ Ease up gently on the regain traction. |

| Skid | Cause | Strategy |
|---|---|---|
| Rear wheels | Braking | ▶ Turn the steering wheel in the desired direction;<br>▶ Release the brake;<br>▶ To slow down, brake again but do so more gently to avoid locking the wheels. |
| Four wheels | Braking | ▶ Turn the steering wheel in the desired direction;<br>▶ Release the brake;<br>▶ To slow down, brake again but do so more gently to avoid locking the wheels. |

If, during a skid, the vehicle spins and you cannot regain control, there is only one thing to do: press the brake down all the way and keep a firm grip on the steering wheel. The vehicle will then go in only one direction, even if it spins. It will eventually come to a stop.

## Hydroplaning

In heavy rain, layers of water can form on the road surface and cause hydroplaning. The phenomenon occurs when the tires lose traction with the road temporarily and float on the water because the tire treads can no longer evacuate the excess water. You can lose control of your steering and brakes. Driving too fast and worn or under-inflated tires can also cause you to lose control.

**With a vehicle that has front-wheel drive**, the engine could race and the front of the vehicle could suddenly be pulled toward the side of the road.

**STRATEGY**

- Immediately but slowly ease up on the accelerator;
- Keep both hands on the steering wheel, turning in the desired direction.

**With a vehicle that has rear-wheel drive**, you may have difficulty realizing you are hydroplaning since propulsion comes from the rear wheels. When in doubt, slow down and keep both hands on the steering wheel.

## Crossing a Sheet of Water

Be careful when driving through a sheet of water as it might be deep and could be hiding a pothole. Try to avoid it if possible.

**STRATEGY**

- Slow down before reaching the water;
- Shift into first gear, usually labelled (*1*) or (*L*) for an automatic transmission;
- Drive slowly through the water;
- Dry off the brakes by pressing gently on the brake pedal with your left foot while holding your right foot on the accelerator;
- Return to normal speed;
- Shift back to (*D*) if you have an automatic transmission.

If you cannot slow down enough before going through the water, you must make an emergency stop. This is however a more dangerous manoeuvre than the preceding one.

**STRATEGY**

- Release the brake just before reaching the water;
- Disengage the transmission, i.e. put it into neutral (*N*) to allow the vehicle to move on its own;
- Keep a firm grip on the steering wheel to avoid losing control of it;
- Turn on the windshield wipers to drive through the water;
- Turn the steering wheel gently if the direction of the vehicle needs to be adjusted while in the water;
- Once out of the water, shift into first gear, usually labelled (*1*) or (*L*) for an automatic transmission;
- Dry off the brakes by pressing gently on the brake pedal with your left foot while holding your right foot on the accelerator;
- Return to normal speed.

# Unexpected Situations

## A Fire Breaks Out in the Vehicle

**STRATEGY**

- Steer the vehicle toward the side of the road;
- Park the vehicle away from a crowd or a building;
- Turn the engine off and leave the vehicle as soon as it has come to a stop;
- Make sure no one approaches the burning vehicle;
- Stop all traffic close to the vehicle;
- Stay at least 30 metres away from the vehicle;
- Call the fire department as soon as possible.

If you drop a lit cigarette or match, stay focused on controlling the vehicle. There is little risk that the fire will spread, since car manufacturers use inflammable materials, i.e. materials that do not ignite easily.

## Risk of Head-On Collision

This situation often takes drivers by surprise. You must however react quickly to avoid a collision.

**STRATEGY**

- Signal with your headlights;
- Sound your horn;
- Begin an emergency stop;
- Stay as far as possible to the right side of the road;
- Look for an alternate direction to head in;
- Look in the direction you want to go;
- Ease up a little on the brake pedal to avoid locking the wheels;
- Steer the vehicle in the desired direction.

This may mean changing to the right-hand lane, driving onto the shoulder or going off the road. Should you go off the road and there are several obstacles which cannot all be avoided, try to hit the ones that will give upon impact. If all of the obstacles are solid, try to hit them at an angle rather than straight on so the vehicle rebounds instead of crashing.

## Insect in the Vehicle

If you notice an insect in the vehicle, lower your side window so the wind can push it toward the back. If you have electric windows, you may want to open them all to encourage the intruder to leave. If it stays in the vehicle, go to the side of the road, stop and open all the doors.

## Vehicle in Contact with Live Wires

It is rare that a vehicle will come into contact with live wires. If it happens to you, you must take specific action.

**STRATEGY**

- Immediately stop the vehicle and stay inside;
- If you must leave your vehicle, jump out making sure you are never in contact with both the vehicle and the ground at the same time;
- Make sure you do not touch wires that are hanging down or lying on the ground;
- Call the emergency services;
- Do not let anyone except qualified rescue workers approach the vehicle.

## Submerged Vehicle

When a vehicle is in a body of water that is deeper than the vehicle is high, it will float for a while and then slowly fill with water and sink.

**STRATEGY**

- Remove your seat belt;
- Roll down the window or open the sunroof. If that is impossible, open the door when the water level is high enough inside the vehicle;
- Get out of the vehicle.

Even if the vehicle is completely submerged, there will be enough air to breathe for a little while if the windows remain closed.



If you and your passengers leave the vehicle while it is floating, move a good distance away as it will create an eddy when it sinks.

## Breakdowns

Breakdowns often occur without any warning. Remember to think of your safety and that of others when you react.

**STRATEGY**

- Slow down, avoid any sudden movement and stop on the shoulder or as far as possible to the right side of the road;
- Stay in the vehicle while you wait for help to arrive and turn on the hazard lights;
- If there is a danger of collision, leave the vehicle, lift the hood and head for a safe place;
- Use warning devices to be more visible to other users especially on a hill or in a curve. If necessary, ask others to act as signallers.

On a bridge or an expressway, remain in the vehicle, turn on the hazard lights and wait for help to arrive. Emergency services are usually notified quite quickly. However, if you have a cell phone, call emergency services yourself.

If you leave the area where the vehicle broke down:

- Lock the doors and hide items of value in the trunk to prevent theft;
- On a road without any sidewalk, walk facing oncoming traffic.

## On Railway Tracks

If you have a breakdown on a railway track, check to see if a train if approaching. If you see or hear a train, move at least 30 metres away from the railway tracks with your passengers.

### If there is no train:

- Get others to help you move the vehicle if that is possible;
- If the vehicle has standard transmission, it may move a few metres if you turn on the ignition while the transmission is in first gear or reverse;
- Turn on the hazard lights and place warning devices or flares around the vehicle.

### If it is impossible to move the vehicle:

- Lift the hood;
- Call emergency services quickly;
- Move to a safe place to await help.

## Preventing Breakdowns

Along with regular checkups, pay attention to unusual noises and behaviour in your vehicle. Some problems can be detected by using three of your senses: eyesight, hearing and smell.

With your eyes, you can notice:

- Fluid on the ground where the vehicle was parked;
- A warning light on the dashboard;
- Unusual smoke coming from the exhaust pipe;
- The fuel gauge showing higher fuel consumption than usual.

With your ears, you can hear a metallic or unusual noise:

- When the wheels are turning or when you brake;
- Coming from the engine.

With your nose, you can detect an oily smell or a burnt odour. You can also notice that:

- The vehicle is pulling toward the left or the right;
- The clutch is difficult to engage or the gears do not work as they normally do;
- The vehicle is difficult to start;
- The engine seems to want to stall;
- The heating system is less effective.

## In Case of an Accident

A driver involved in an accident must remain on the scene and take the appropriate safety measures. When a minor accident has caused only slight material damage, clear the way and complete a joint accident report.



You must also notify emergency services or the police:

- If there are any injured people;
- If it was a hit and run;
- When in doubt about the circumstances of the accident.

If you are not injured and your life is not in danger, offer assistance to victims while waiting for help to arrive. If the accident scene is unsafe, for instance if there is fuel, a fire or an electrical wire near the vehicle, it is preferable not to intervene to help victims and wait for help to arrive.

If you intervene, remain calm and:

- Protect the victims;
- Call for help;
- Offer assistance.

## Protecting Victims

To prevent the accident from becoming more serious:

- Turn the engine off in the vehicles involved in the accident;
- Engage the parking brake;
- Check the state of the victims: Are they conscious? Are they breathing?
- Do not smoke at the accident site so as to reduce the risk of fire;
- Stop traffic, if necessary;
- Put out warning devices at the accident site, in both directions. Ask other people to act as signallers, if necessary;
- At night, use a flashlight and light up the vehicles involved in the accident with the headlights of a vehicle parked perpendicular to the road, i.e. at a right angle with the road.

If there is a fire, aim the fire extinguisher at the base of the flame. If you do not have a fire extinguisher, use earth, sand or a blanket. Avoid water. If there is fuel, water could make it spread and make the fire worse.

## Calling for Help

Every minute counts to save a person's life. You must:

- Call an emergency service or the city police department as soon as possible;
- Provide a complete and detailed report of the situation specifying:
  - The nature of the accident;
  - The number of injured people and their condition;
  - The degree of consciousness of the injured people;
  - The position of the injured people inside or outside the vehicle, specifying if any are trapped inside;
  - The number of vehicles involved;
  - The exact location of the accident; look for signs and intersections as a reference;
  - Factors that could make the situation more serious, including fuel or hazardous products on the ground, a fire, cut electrical wires, etc.

## Offering Assistance

While waiting for help, offer assistance to anyone injured, taking care not to aggravate their condition. Make sure that other people at the accident scene act safely.

A driver involved in an accident who does not offer assistance commits a violation and is liable to a fine.

**STRATEGY**

- Calm the victims;
- Cover any injured persons with a blanket or a piece of clothing to protect them;
- Do not give anything to drink to an injured person. If they have internal injuries, that could endanger them;
- Do not remove the helmet of any injured motorcyclists to avoid aggravating their condition;
- Stop any hemorrhaging if possible;
- Avoid moving any injured persons to avoid aggravating their condition;
- Do not remove any injured persons from the vehicle, except if their life is in danger, for instance if there is a risk of drowning, a new collision, a fire, a landslide or a fall into a ravine.

**If you must move an injured person:**

- Avoid pulling them by their limbs;
- Avoid twisting or displacing the spinal column.



At the scene of an accident where help has already arrived, avoid crowding the site and continue driving.

# SELF-EVALUATION EXERCISES

## Practice Exercises

Exercises on the road must only be done after having obtained your learner's licence. You must also be accompanied by a person who has held a driver's licence for at least two years.

1. Drive after dusk.
2. Practise in different weather conditions.
3. In winter, choose a space where there are not many obstacles, for instance, a parking lot with no cars. Practise controlling a skid at low speed. That will help you better understand the vehicle's reaction in a skid and successfully correct its course.

# Theoretical Exercises

## True or False

1. Indicate whether the following statements are true or false.

| | True | False |
|---|---|---|
| a) Your vision is not really affected at night since the light from headlights make up for the lack of daylight. | ☐ | ☐ |
| b) You should use your high beams when driving in fog. | ☐ | ☐ |
| c) To avoid being temporarily blinded, you should look at the right-hand side of the road when you meet an oncoming vehicle at night. | ☐ | ☐ |
| d) Since the range of your headlights is limited, you should drive more slowly at night so you have time to react to any obstacles. | ☐ | ☐ |
| e) Turn on your high beams only once you are beside the vehicle you are passing. | ☐ | ☐ |
| f) Staring at the headlights of oncoming vehicles prevents the temporary blindness that can affect your vision for several seconds. | ☐ | ☐ |
| g) The first minutes after it starts to rain are the most difficult to drive in. | ☐ | ☐ |
| h) In fog, you can use the lights of the vehicle in front of you as your only guide. | ☐ | ☐ |
| i) High speed and worn or under-inflated tires can cause hydroplaning. | ☐ | ☐ |
| j) Being attentive to unusual behaviour in your vehicle requires the following three senses: eyesight, hearing and smell. | ☐ | ☐ |

## 2. Complete the sentences by filling in the correct term:

braking | mislead | hazard | distract | road | move away | dashboard

A driver caught in very thick fog and who leaves the road should:

a) _____ from the road as much as possible;

b) Turn on the _____ lights;

c) Do not leave the headlights on when you leave the road. That could _____ other drivers into thinking your vehicle is still on the road;

d) Do not return to the _____ until the situation has improved.

## 3. Complete the sentences by filling in the correct word or group of words:

after | exhaust fumes | before | signals | completely | road users | partly

In winter, a driver planning to drive a snow-covered vehicle must _____ clear the vehicle _____ driving, so as to see the road properly. Other _____ will be able to see the vehicle and its headlights _____ more easily.

4. Which of the following illustrations shows the proper way to park in winter?

a)

b)

c)

## Complete the following steps.

5. You are driving down a winding road. You come to a curve and notice a vehicle heading straight for you.

a) Warn the oncoming driver with your headlights.

b) _____

c) Make an emergency stop.

d) _____

e) Look for an alternate route.

f) _____

g) _____

h) Steer the vehicle toward the chosen route.

6. On a slippery surface, name the three strategies that ensure safe driving.

a) _____

b) _____

c) _____

# PREVENTIVE ATTITUDE

6

Having a preventive attitude means developing a positive attitude toward driving and adopting behaviour that is in line with road safety principles.

A driver's behaviour is important. Observing well, evaluating well, reacting well, being courteous and cooperating are all examples of safe behaviour.

# CONTROLLING THE SITUATION

To be in full control of a situation, you must be able to see well and to hear well. You must also beware of drowsiness and fatigue.

## Seeing Well and Hearing Well

You must be able to count on your eyes and ears.

**STRATEGY**

- Wear correctives lenses if they have been prescribed;
- Wear sunglasses when the sun is strong;
- Practise scanning;
- Be attentive to unusual noises from the vehicle or your surroundings;
- Adjust the volume of the radio or CD player so you can hear what is going on outside the vehicle.

## Remaining Alert

Driving involves special attention, since your eyes, your ears and your judgment are constantly solicited. You should be aware that distractions can prevent you from seeing hazards and can slow down your reaction time.

**STRATEGY**

- Practise regular scanning and avoid focusing on only one element in your surroundings;
- Anticipate what could happen and plan the right manoeuvres;
- Inform passengers that your attention must be kept on the road.

## Eliminating Distractions

### Distraction at the Wheel

Any event or action that diverts drivers' attention from their main task represents a distraction. Although it is impossible to eliminate all distractions while driving, it is important that drivers learn to manage them and reduce their numbers.

Some drivers underestimate the amount of attention driving a vehicle requires. Driving is a complex task that requires several skills at once. This is why drivers must avoid drinking, eating, smoking, using their cell (to speak or send text messages), or looking at a screen or another device displaying information. In fact, the use of a cell phone or a screen can lead to sanctions.

These actions can prevent drivers from concentrating on driving. As a result, they may not perceive hazards and execute certain manoeuvres too late.

There are three types of distractions that can prevent you from concentrating on driving the vehicle:

- **Visual**: taking your eyes off the road momentarily to look at something else (the landscape, an accident, etc.);
- **Physical**: taking your hands off the wheel to do something else (handle an object, etc.);

- **Intellectual**: thinking about something rather than concentrating on the road (your mind is wandering, you are worrying about something, etc.).

Obviously, all three types of distraction can be combined to greatly hamper a person's ability to drive. For example, a driver may be thinking about something else while bending over to pick up an object on the passenger seat, and then glance at the seat because he or she can't find the object with his or her hand. These three combined actions considerably increase the risk of being involved in an accident.

## Distraction-Related Hazards

Distractions affect your ability to drive. Unconsciously, you:

- React more slowly to traffic conditions;
- Are at risk, for example, of not braking in time if a vehicle turns or stops suddenly;
- Take longer to notice hazardous situations, such as an object or debris on the road or the unpredictable reactions of a pedestrian or cyclist;
- Reduce your safety margin in relation to other road users, which may cause you to take unnecessary risks, such as turning left when there are oncoming vehicles.

Drivers must therefore be very alert. They must keep their hands on the wheel and their eyes on the road. Certain tricks can also help you avoid distractions:

- Switch off all portable electronic devices (cell phone, iPod, iPad, laptop computer, etc.) before setting out;
- Check the itinerary before setting out. It is best to check the road map or set the GPS before leaving rather than during the trip;
- Program the radio, insert the CD or select the playlist you want to listen to before you drive off;
- Make sure any children on board are comfortable and that they have everything they might need before setting out. It is also important to make sure that the child car seat safety device is properly fastened, if applicable;

- Avoid smoking, drinking or eating while driving. The risk of choking increases when the vehicle is in motion. You must therefore stop to let passengers and children eat or drink;
- Make sure there are no loose objects on the dashboard or unoccupied seats;
- Avoid engaging in a stressful or emotional conversation with one or more passengers, as this can affect your driving.

## Electronic Devices, a Significant Source of Distraction

Many studies have shown that using an electronic device while driving is a major cause of cognitive and visual distractions that increases the risk of being involved in a road accident or violating the *Highway Safety Code*.

The main rule concerning the use of electronic devices or a cell phone is not to use them while driving! Turn off your phone when you are at the wheel and let your voice mail or a passenger take your calls for you. The hands-free option is no safer than the hand-held device, for studies have shown that both have an adverse effect on driving. It is not so much the handling of the device that poses a problem, but the telephone conversation itself, since a cell phone is more of a mental than a physical distraction. The distraction related to a cell phone conversation remains present even if a driver has both hands on the wheel.

Using a cell phone or any other electronic device at the wheel undermines the attention required for driving and impairs a driver's performance in several ways:

- Visual perception declines (reduced visual field, staring);
- The ability to avoid obstacles is reduced;
- The ability to detect stimuli inside and outside the vehicle decreases;

- Braking reaction time in critical situations increases;
- The adaptation time that allows a driver to maintain a safe distance between vehicles increases;
- Driving in a straight line and keeping the vehicle in the centre of the lane become more difficult.

## Ban on Portable Electronic Devices

Under the *Highway Safety Code*, the use of any type of hand-held portable electronic device while driving is prohibited. The law applies to all devices, whether or not they are in use, such as:

- Cell phones;
- MP3 players or portable multimedia players;
- Portable satellite radios;
- Electronic tablets;
- Screens that display information that is not of use when driving;
- Devices that display emails and make it possible to browse the Internet.

Simply holding this type of device in your hand while driving, regardless of use, is an offence that earns:

- A fine of $300 to $600;
- Five demerit points.

A "hand-held device" means one where the entire device is held in the hand. Drivers who bring their vehicle to a stop for road signs, traffic signals or traffic obstructions are still considered to be driving a vehicle, just as drivers who are waiting at a red light or in a traffic jam are also still driving a vehicle. Portable electronic devices cannot be used by drivers in these situations. However, drivers who bring their vehicle to a safe and legal stop at the side of the road are no longer considered to be driving, even if the vehicle's engine is running.

## Preventing Drowsiness and Fatigue

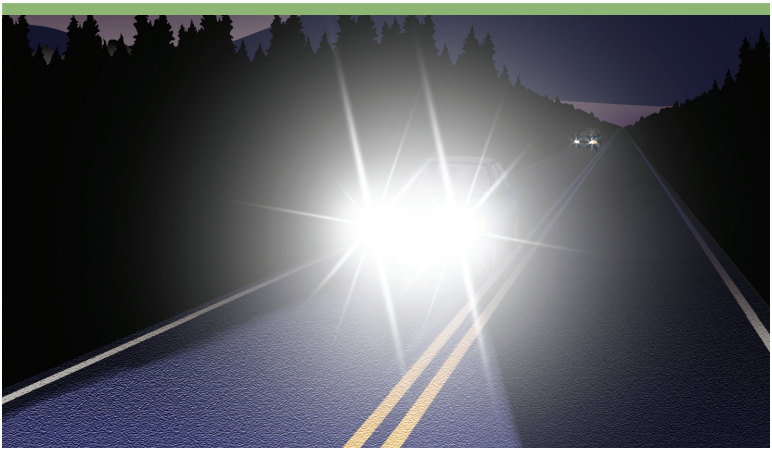
You should only drive when you are rested. Tired drivers are a threat, both to themselves and other road users. Fatigue reduces vigilance and makes it more difficult to make decisions. In addition, it slows down the coordination of movements. Do not wait to doze off before stopping.

31% of drivers affected by drowsiness do not recognize the first signs of fatigue or else they ignore them.

To avoid drowsiness, recognize the telltale signs of fatigue:

- Repeated yawning;
- A tendency to stare at the road (less visual scanning);
- Numerous changes in position;
- Itchy eyes;
- Droopy eyelids;
- Periods of microsleep, i.e. from three to four seconds;
- Difficulty in concentrating, in staying alert;
- Slower reactions;
- Memory loss (no recollection of the last kilometres driven);
- Daydreaming, especially on monotonous roads or in fog.

Even if you do not feel any signs of fatigue, take the necessary measures to keep your energy and coordination at their peak.



To prevent fatigue and avoid drowsiness:

- Respect your limits and sleep needs;
- Sleep at least eight hours before taking a long trip;
- Lower the window slightly while driving and avoid overheating the vehicle;
- Eat just a little and take non-alcoholic drinks;
- Plan your trip by taking into account times when your energy is lower. For instance, at such times, avoid driving in heavy traffic;
- Train yourself to recognize the first signs of fatigue and stop to rest as soon as they appear;
- Avoid driving more than four hours at a time and stop after every two hours;
- Take short breaks to get out of your vehicle so you can relax and stretch.

Various forms of fatigue can affect you if you drive long distances. For instance, sitting for too long in the same position can cause numbness and lower your concentration. Driving at night and glare can also cause visual fatigue. You can prevent visual fatigue.

**STRATEGY**

- Turn down the intensity of the dashboard light, since contrasts in light increase visual fatigue;
- Avoid placing objects on the dashboard, since they reflect in the windshield and increase visual fatigue;
- Clean the windshield and rearview mirrors often, since good visibility reduces visual fatigue;
- Make sure the windshield wipers are in good condition, since if it rains, you will not be as blinded.

Take time to rest. That is the best way to fight fatigue.

## Drive Without Consuming Alcohol or Drugs

The effects of alcohol are progressive. They start as soon as the first beverage has been consumed. Alcohol influences the ability to drive and increases the threat of an accident.

Alcohol consumption is involved in around 30% of traffic-related deaths, 18% of serious injuries and 5% of minor injuries.

A person who has not eaten feels the effects of alcohol more quickly. The psychological state of a person who consumes can also increase its effects. When stressed, depressed or tired, a person runs a greater risk of being affected after only a few drinks.

Certain effects of alcohol are deceiving. Among other things, they impair judgment. Drivers will be overconfident in their ability to drive and therefore take more risks.

Another effect is slower brain activity, accompanied by a loss of coordination. Gestures take longer to make, are more abrupt and less accurate. Lastly, alcohol has an impact on a driver's visual abilities to scan the road and the surroundings.

Just as with alcohol, consuming drugs or certain medication, whether prescribed or sold over the counter, influences the ability to drive a vehicle.



All drivers age 21 or younger are subject to the zero alcohol rule. This means that they cannot drive a road vehicle or have the care or control of a vehicle if there is alcohol in their system.

All drugs (cannabis, cocaine, amphetamines, etc.) and certain medication (minor tranquilizers, anti-depressants, sedatives, etc.) also have an adverse effect on driving.

All drivers, regardless of their age or the type of vehicle they drive, are subject to the "zero drug" rule. This means that they cannot drive a road vehicle or have the care or control of a vehicle if a drug is present in their system.

Certain medication, whether prescribed or sold over the counter, also influences the ability to drive a vehicle. Check with your doctor or pharmacist to make sure there is no danger in driving a car.

It is important to read the labels on containers to know the side effects of medication and their impact on your ability to drive. There are often warnings involving drowsiness or over-stimulation that must be taken into account.

Beware of medication available without a prescription. It can also have negative effects on driving.

Medication and drugs have their own effects on the body. Combined with alcohol, they cause reactions that impair performance behind the wheel. They therefore increase the risk of a serious accident.

To drive, you need to be in full possession of your faculties so you can react appropriately to all situations.

## False Beliefs

Some people think that alcohol is a stimulant. They are wrong. It is a depressant that reduces tension and inhibitions. It makes people more daring, but limits their abilities. Concentration and attention decrease gradually. Ideas become foggy and judgment is impaired. Since alcohol affects all senses and movements, its effects on driving a vehicle are major.

Others believe that eating when consuming alcohol eliminates its effects. That is not the case.

There is no miracle solution for making alcohol disappear from the blood. Strong coffee can give a person the impression of having more energy, but it does not decrease the alcohol level.

Taking a cold shower, walking or dancing won't help either. While it is true that perspiring eliminates some of the alcohol, it is not enough to make a difference.

## Other Options

If you have consumed alcohol or drugs with other people, you have various options:

- Give your keys to someone who is not consuming alcohol or drugs;
- Designate a person (designated driver) who agrees not to drink and who will drive the others home;
- Sleep at a friend's house;

- Bring some money for a taxi or use public transit;
- Call a "drive-home" service.

Be insistent when trying to prevent anyone who has consumed alcohol or drugs from driving. Use sentences such as:

- I'll drive you.
- You can sleep here.
- I'm keeping your keys.
- I'm calling a taxi.
- I'll bring your car to you.
- I'll drive you tomorrow.

Do not take risks. The consequences can be tragic.

# BEING COURTEOUS ON THE ROAD

Studies show that to safely drive a vehicle, you need more than just skills. Your attitude and behaviour are also important. To promote good relations among road users, a courteous attitude is a must.

Courtesy starts with obeying the *Highway Safety Code* and traffic rules. In fact, the law requires each road user to be careful and respectful in the presence of more vulnerable people when they are on the road. Courtesy also calls upon the politeness and manners of all road users.

For everyone's safety and to promote harmonious relations on the road, avoid assuming things about other users. Give them the benefit of the doubt. Keep in mind that everyone can become tense or nervous in certain situations and make mistakes or awkward movements. This could be the case with drivers who slow down because they are unfamiliar with the neighbourhood or who forget to signal before making a turn.

Some people might also make certain manoeuvres or behave in such a way as to make you think, rightly or wrongly, that they are impatient or aggressive. If you are the victim or witness of such behaviour, you might react impatiently as well. Avoid however responding to road users with disrespectful words or gestures.

**Patience**, **tolerance** and **courtesy** are attitudes that help maintain cordial relations on the road and keep sources of tension and irritation to a minimum. They make it possible to avoid conflicts among the different road users.

To avoid finding yourself in stressful situations that lead to impatience on the road, follow these tips:

- Avoid driving in a state of fatigue or tension;
- Leave early;
- Take roads with less traffic;
- Listen to relaxing music or a funny recording;
- Avoid tense conversations with passengers;
- Avoid rush hour;
- Drive in the right-hand lane, except to pass;
- Remember that false movements on the part of other road users are not always conscious or voluntary;
- Accept the pace of other drivers;
- Always cooperate with other drivers;
- Act by protecting less experienced drivers.

Be courteous, it's contagious!

# CONCENTRATING ON YOUR DRIVING

To concentrate on your driving, you must:

- Learn from past experience, rather than repeating the same mistakes. You can thereby adjust your driving;
- Be tolerant and patient. At one time or another, it can happen that drivers make an involuntary mistake;
- Above all, think of your safety and that of others. A preventive attitude like that will help you regain your calm.

Avoid driving when you are experiencing very strong emotions. For instance, when you have major worries or when you are feeling angry, sad or depressed.

## Standing Up to Pressure

Impatient drivers frequently follow too closely or honk their horn impatiently. Such behaviour creates a climate of tension and stress on the road. If you are a victim of such behaviour, you could make errors. For instance, you could make sudden moves and cause an accident.

You should definitely not yield to such forms of pressure. Evaluate the risk yourself and make the safest move.

If a driver pressures you, pull over to the right and let that person pass, if it is possible and safe to do so.

Always be attentive to what is happening in your surroundings and the impact of your behaviour on others.

Certain types of behaviour can frustrate other road users:

- Talking on a cell phone while driving can distract other drivers from their surroundings;
- Driving too slowly in the left lane can cause other drivers to want to pass you on the right or to zigzag;
- Driving more slowly than others on a narrow winding road may make users behind you impatient and cause them to make dangerous manoeuvres.

Other pressures can also come from friends, family and peers, i.e. other drivers in your age group. Certain persons are more sensitive and even vulnerable to the influence of others. Young drivers with little experience are more likely to be influenced by such pressure. The influence of friends and peers is often stronger than that of family.

Peer pressure can be positive or negative. For instance, positive pressure would be if a person encourages you to adopt safe driving behaviour. Negative pressure would be if a person incites you to make an inappropriate or dangerous manoeuvre. You must be able to resist negative pressure.

**STRATEGY**

- **Identify the problem**: ask yourself if what is being proposed to you is a problem. If so, to what degree? Is it a driving technique that you have not mastered? Is it an unsafe behaviour?
- **Identify possible options**: are there other options? Is it possible to make a safe compromise? Using humour can be a way to choose another option or negotiate a compromise.

- **Evaluate the consequences**: is it better to lose control of one's vehicle and risk causing an accident or accept being teased by a passenger?
- **Act**: choose the option that ensures your safety and that of other road users.

Drive with groups of friends that respect your driving abilities.

## Dealing With Disrespectful or Aggressive Behaviour

Driving can be a different experience for different people. For some:

- The vehicle becomes a second home they feel insulated and protected by the vehicle; they feel invincible;
- Driving is like a game of rivalry, competition and challenge where risk becomes part of the game;
- Driving is a source of pleasure through the sensations it brings: the impression of dominating a machine or of surpassing oneself, with risk also involved.

You should know what kind of driver you are and understand that other drivers do not necessarily see things the same way as you do. You are the one that needs to adjust.

The main irritants gathered by the Sûreté du Québec on the subject of driving concern the breaking of traffic rules. They include:

- Following another vehicle too closely (tailgating) or with insistence;
- Not yielding the right-of-way or demanding it;
- Often changing lanes;
- Not signalling one's intention;
- Passing on the right or on the shoulder;
- Zigzagging between vehicles;
- Double parking;
- Driving with high beams and blinding other drivers;
- Honking the horn in an abusive manner;
- Making unpleasant or aggressive gestures.

Drivers must obey traffic rules, signals and right-of-ways, so as not to jeopardize their safety or that of other road users. They should also avoid committing violations that carry fines.

Respectful behaviour should be shown to other road users at all times.

If you encounter a driver showing aggressive behaviour:

- Remain calm;
- Avoid making eye contact with aggressive drivers so as not to increase their aggressiveness;
- Avoid reacting to provocative words or gestures;
- Take the best method to avoid conflict. If necessary, yield the right-of-way.

If an aggressive person leaves the vehicle and comes toward you:

- Remain in your vehicle, making sure the windows are closed and the doors locked;
- Avoid discussion with the aggressive driver, do not look at the person or make any provocative gestures;
- Leave the scene and head to a place where you can get assistance;
- Do not go home if an aggressive driver is following you.

Always avoid aggressive behaviour toward other road users.

## Ensuring Passenger Safety

You must ensure that your passengers are safe.

**STRATEGY**

- Refuse to drive until all passengers have fastened their seat belts;
- Establish safety rules with the children before leaving and ensure these are obeyed;
- Never allow a passenger to stick arms, hands, head or any object outside a lowered window or a sunroof;
- Warn passengers that you will not be talking a lot while driving so you can concentrate.

## Listening to Passengers

Certain drivers feel the need to show off behind the wheel and take risks that worry passengers or even make them feel ill-at-ease. You must be attentive to your passengers and ensure their well-being.

You must question yourself and adjust your driving if a passenger:

- Expresses fear because you are going too fast;
- Requests that you slow down;
- Offers to drive;
- Holds the door handle;
- Asks to leave the vehicle.

Adjusting your driving to your passenger's well-being and sense of safety shows you have judgment.

# ON THE ROAD TO SUCCESS

Respecting your limits is the best advice to put into practice. You yourself are the best judge of your limits and the risks you are willing take.

You must concern yourself with your safety and that of other road users at all times.

The keys to road safety are:

- A preventive attitude;
- A good visual scanning method;
- Technical skills;
- Respect of laws;
- Knowledge of your limits.

**Happy motoring!**

# SELF-EVALUATION EXERCISES

## Theoretical Exercises

1. **List three types of distraction that prevent you from concentrating on your driving:**

a) _____

b) _____

c) _____

2. **Complete the list of telltale signs of fatigue.**

a) _____

b) _____

c) Numerous changes in position

d) _____

e) Droopy eyelids

f) Periods of microsleep, i.e. from three to four seconds

g) _____

h) _____

i) Loss of memory (no recollection of the last kilometres driven)

j) Daydreaming, especially on winding roads or in fog

**3. Using the following four statements, complete each of the sentences below that explain what to do to prevent visual fatigue.**

a) Good visibility reduces visual fatigue.
b) Contrasts in light increase visual fatigue.
c) If it rains, you will not be as blinded.
d) They reflect in the windshield and increase visual fatigue.

1. Turn down the intensity of the dashboard light, since

_____ .

2. Avoid placing objects on the dashboard, since

_____ .

3. Clean the windshield and rearview mirrors often, since

_____ .

4. Make sure the windshield wipers are in good condition, since

_____ .

## 4. Place the items from column A in order and then the sentences from column B.

| A | B |
|---|---|
| a) Act | b) Is it better for you to lose control of your car and risk being injured or put up with teasing from a passenger? |
| c) Evaluate the consequences | d) Is what is proposed by a passenger a problem for you? If so, how? Does it involve a poorly mastered driving technique? An unsafe behaviour? |
| e) Identify the problem | f) Can you act according to your own judgement, using humour to negotiate a compromise with passengers? |
| g) Identify possible options | h) Opt for a solution that ensures your safety and that of other road users. |

| A | B |
|---|---|
| | |
| | |
| | |
| | |

**5. The following sentences describe preventive measures to avoid being irritated by the disrespectful behaviour of other road users. Complete the sentences using the statements below:**

1. Relaxing music or a funny recording
2. When tired or tense
3. Rush hour
4. Early enough
5. Except to pass
6. Act
7. Cooperate
8. Conscious or voluntary
9. Avoid tense conversations
10. Less travelled roads

a) Avoid driving _____ .

b) Leave _____ .

c) Use _____ .

d) Listen to _____ .

e) _____ with passengers.

f) Avoid _____.

g) Drive in the right-hand lane _____

_____ .

h) Remember that the false moves by other drivers are not always

_____ .

i) Always _____ with other drivers.

j) _____ by protecting less experienced drivers.

## True or False

**6. Indicate whether the following statements are true or false.**

| | True | False |
|---|---|---|
| a) A driver using a hands-free cell phone can drive safely. | ☐ | ☐ |
| b) Even if you show no signs of fatigue, you must take measures to keep your energy and coordination at their peak. | ☐ | ☐ |
| c) Alcohol is a stimulant. | ☐ | ☐ |
| d) Pressure from others can be positive as well as negative. | ☐ | ☐ |
| e) Drivers who question their behaviour show good judgment. | ☐ | ☐ |

# APPENDIX

# SAFETY RESTRAINT DEVICES FOR CHILDREN

## Child Car Seat

All children whose sitting height is less than 63 cm must be secured in a child car seat. However, starting on April 18, 2019, a new provision of the *Highway Safety Code* will come into force. Children who are 145 cm tall or less or who are under 9 years old will need to be secured in a car seat suitable for their weight and height. There are three models:

- The infant seat (for children under 9 kg or 66 cm);
- The child seat (for children weighing between 9 and 18 kg or measuring between 66 to 102 cm);
- The booster seat (for children over 18 kg).

All child car seats sold in Canada comply with transport Canada standards. Avoid buying or using car seats sold in the United States, since the standards are different.

In Québec, one-half of all child car seats are not used correctly. This means that one out of every two children is unsafe riding in a vehicle.

In order to correctly use a child car seat, all three of the following conditions must be met:

- The seat corresponds to the child's height and weight;
- The seat is properly attached to the vehicle's seat;
- The child is properly restrained in the seat.

Follow the installation instructions for the car seat to:

- Correctly secure the car seat to the vehicle's seat;
- Properly fasten the child to the car seat.

Do not hesitate to have the seat's installation verified. To do so, the Société de l'assurance automobile du Québec (SAAQ), in collaboration with CAA-Québec, has created the Child Car Seat Verification Network. Inspections are performed free of charge by qualified technicians who have received appropriate training based on strict criteria. For additional information, go to **siegedauto.qc.ca**.

It is also important to complete the car seat's registration card and return it to the manufacturer. If there is a recall, the manufacturer will contact the owner of the car seat.

Avoid adding toys and accessories for the car seat that are not soft. In the event of a collision or sudden braking, a metal or hard plastic toy could be thrown and injure the child, another passenger or the driver.

Always fasten the child, even for a short distance. Over half of all accidents occur in areas with a 50 km/h speed limit, within 8 km from home.

Children under 12 years old should always sit in the back seat, especially if the vehicle is equipped with an airbag on the front passenger's side.

After an accident, replace the child's car seat, for greater safety.

## Child Safety Locks

To prevent a child from opening the rear door and falling from a moving vehicle, use the child safety locks. These are located on the side of the rear doors. Open them to activate the lock.

# DRIVING WITH A STANDARD TRANSMISSION

To change gears on a vehicle with standard transmission, you must press down on the clutch pedal to disengage the engine's transmission. Afterwards, you need to release it to re-engage the engine and the transmission.

## Position Use – Standard Transmission

| Lever position | Use |
|---|---|
| **R - Reverse** | ▶ For backing up. In this position, the white lights go on at the rear of the vehicle. |
| **Neutral** shown by a horizontal line on the lever | ▶ For starting the engine;<br>▶ For keeping the engine running while the vehicle is stopped. |
| 1 **First gear** | ▶ For driving the vehicle when you first start;<br>▶ For going up or down steep hills at low speed;<br>▶ For parking manoeuvres. |
| 2 **Second gear** | ▶ For driving slowly;<br>▶ For going up or down moderately steep hills. |
| 3 **Third gear** | ▶ For regular city driving at a constant speed or with slight accelerations. |
| 4 **Fourth gear** | ▶ For regular city driving at slightly higher speed. |
| 5 **Fifth gear** | ▶ For driving on the highway at high speed, once you have reached a sufficient cruising speed (around 75 km/h, depending on the vehicle). |

With practice, you begin to recognize the exact time you need to change gears by the sound and the engine's response. If you go to a higher gear, the engine's power will decrease. At a lower gear, it will increase.

## Steps in Starting the Engine

Here are the steps to follow:

- Push down on the brake pedal;
- Make sure the parking brake is properly engaged;
- Using your left foot, press the clutch pedal all the way in;
- Shift into neutral while maintaining pressure on the clutch pedal;
- Turn the key to the (*On*) position;
- Check that all warning lights, especially the red ones, come on;
- Push down the accelerator once and then ease up on it gently;
- Turn the key to the (*Start*) position and release it when the engine starts;
- Ensure that dashboard warning lights and gauges are working properly;
- Take your foot off the clutch pedal.

If you have difficulty starting the engine, do not keep trying. Continued attempts will weaken the battery. If possible, try to discover the problem or call a mechanic.

In cold weather, try gently pushing down on the accelerator when starting the engine. Consult the owner's manual first to learn what steps should be taken to start the engine in all weather conditions.

## Shifting to a Higher Gear

It is preferable to change to a higher gear before the engine turns too quickly. When accelerating, change gears gradually to adjust the engine's power to the vehicle's speed. You have to change gears rapidly but gently. With practice you can master this technique.

The way to upshift is the same for all gears:

- Ease up on the accelerator gradually;
- Apply pressure to the clutch pedal;
- Shift into the higher gear;
- Ease up on the clutch while accelerating.

Do not leave your foot on the clutch when not changing gears. The clutch system can wear out more quickly. Choose a gear appropriate to traffic and speed limits. You will therefore be prepared to encounter anything that could happen on the road.

## Downshifting

This manoeuvre is more complicated than shifting to a higher gear. You must downshift as soon as the engine's power is no longer sufficient to maintain the vehicle's speed. When traffic slows, shifting to a lower gear can be enough to reduce the vehicle's speed.

Before downshifting you must ensure that the vehicle's speed does not exceed the maximum speed allowed for changing gears. If not, the engine could race.

To avoid feeling the braking effect when downshifting, you have to:

- Ease up on the accelerator gradually;
- Apply pressure to the clutch pedal;
- Shift the lever into a lower gear;
- Immediately ease up on the brake pedal and, at the same time, accelerate.

Downshift from one gear to another. If not, the braking effect could be too strong and cause the vehicle to skid if the road surface is slippery.

In a curve or on a hill, if the vehicle's speed needs to be reduced because of a slowdown in traffic, downshift before the engine's power starts to weaken.

Learn to use a standard transmission well. In certain cases, it can reduce your fuel consumption by 5 to 10%.

## Downshifting to Gain Speed Going Uphill

Going uphill, the vehicle will lose momentum if the engine is not strong enough. It is usually enough to downshift to continue to climb steadily.

As soon as you realize that the vehicle is losing speed, downshift to reach the right speed. Quickly apply pressure to the clutch pedal, easing up on the accelerator. After shifting into the lower gear, quickly release the clutch while accelerating. Do this quickly but smoothly.

## Starting on a Hill

To start an engine while on a hill, you need to have good control over the accelerator and clutch pedals. A driver with little experience should not get discouraged. It is normal not to succeed the first time around.

To succeed, your must:

- Keep the vehicle stationary by applying pressure to the brake pedal;
- Apply pressure to the clutch pedal;
- Shift into the first gear;
- Ease up on the clutch pedal gradually until the point of friction to prevent the vehicle from backing up;
- Release the brake pedal;
- Press down on the accelerator gradually and, at the same time, continue to ease up on the clutch;
- Release the clutch pedal when the vehicle starts to move.

Do not release the clutch pedal too quickly or the engine could stall.

To go up a hill, accelerate to counter the effects of gravity and to climb steadily.

Learn to control changing gears, braking and accelerating. These skills make it possible for you to maintain control of your vehicle.

## To Stop the Vehicle

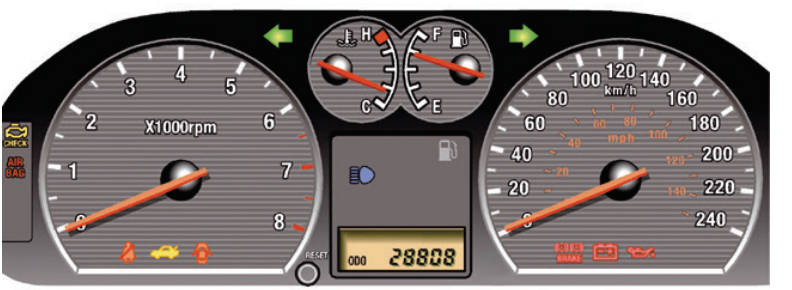
For a vehicle with a standard transmission, you must downshift as your speed decreases. You must not use the transmission alone to slow down; you must disengage the transmission, i.e. put the engine in neutral before stopping.

# WARNING LIGHTS AND GAUGES

The dials, warning lights and gauges, located on the dashboard, provide information on the vehicle's condition and the status of the engine and various systems. Warning lights or combinations of lights and gauges are used rather than gauges alone when there is a possibility of engine damage.

Warning lights have the advantage of attracting immediate attention, while gauges are more precise. They warn us before damage is beyond repair. They also make it possible to monitor one of the engine's components, for example, the engine coolant's temperature.

Green warning lights indicate the direction while orange or yellow lights act as reminders. Red lights indicate a problem or warn of a possible breakdown if a situation is not rectified.



## Speedometer

The speedometer indicates vehicle speed in kilometres per hour (km/h). Check it regularly to make sure you are staying within the speed limit.

## Odometer

The odometer keeps a running total of the distance travelled. Some vehicles are equipped with a trip odometer that shows the kilometres travelled each day or on a single trip. It can be set back to 0 with the reset button.

## Tachometer

Some vehicles have a tachometer. It is a device that indicates the engine speed in revolutions per minute (rpm). It has a red zone that indicates the engine's maximum safe rotation speed.

With a standard transmission, use the tachometer as a guide for changing gears. This device helps you change gears at the right time and use fuel more efficiently. To find out more on this subject, consult the owner's manual.



Avoid turning the engine of your vehicle too quickly. If the tachometer's needle goes into the red zone, it could damage the engine.

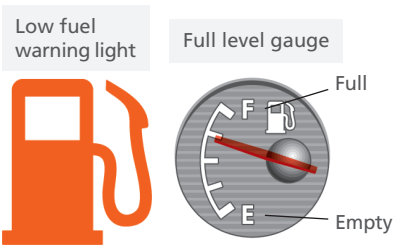
# Problems Indicated by Warning Lights and Gauges

When starting the engine, verify if the warning lights and gauges on the dashboard are working well. If a red warning light remains on, turn off the engine and consult a mechanic.

If a warning light comes on while you are driving, the vehicle may have a mechanical problem.

## Fuel Gauge and Low Fuel Warning Light

The low fuel warning light comes on when the tank is nearly empty. The dial on the gauge shows approximately how much fuel is in the tank.



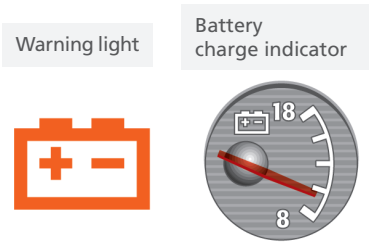

If the low fuel warning light is on and you cannot fill the tank, you risk running out of fuel. If you do run out of fuel, park on the side of the road, if possible, make your vehicle visible and lift the hood.

## Ammeter and Charge System Warning Light

A charge system warning light that is on indicates that the alternator is not charging the battery. There is a mechanical problem if the charge system warning light remains on while the engine is running. If the gauge needle moves into either of the red zones and remains there, the battery is being overcharged or undercharged.

In that case, you must:

- Use the electrical accessories as little as possible;
- Have the electrical system checked promptly; if not, the engine might not start again.

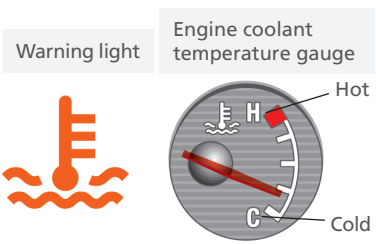



## Engine Coolant Temperature Gauge and Warning Light

If the engine coolant temperature gauge pointer reaches the H zone, your engine is overheating.

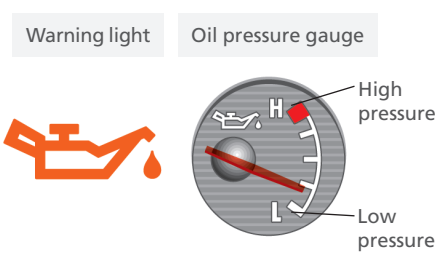
In that case:

- Go to the side of the road, stop and turn off the engine as soon as possible;
- Avoid opening the radiator cap since you could burn yourself very seriously;
- Wait for the system to return to a normal temperature.




## Oil Pressure Gauge and Warning Light

The warning light indicates a drop in pressure. Driving while the oil pressure is low can seriously damage the engine. Pressure indicated by the needle may vary with the outside temperature or the ype of oil used.



In this case:

- Go to the side of the road as soon as possible to avoid engine damage;
- Turn off the engine;
- Check the oil level. If it is normal, there might be a problem with the lubrication system. Do not start the vehicle again, and call a mechanic immediately.

## Parking Brake Warning Light

If the parking brake warning light is on while the vehicle is in motion, even though the parking brake is not engaged, it may indicate a problem with the braking system.

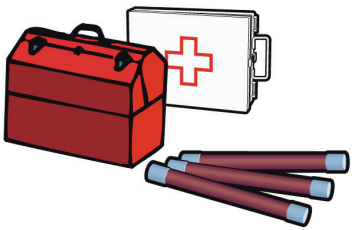

Parking brake warning light

In that case:

- Go to the side of the road as soon as possible;
- Turn off the engine;
- Check the brake fluid level.

# PREPARING AN EMERGENCY KIT

It is always good to have emergency material in the vehicle. That includes:



- A first-aid kit;
- Booster cables;
- A flashlight and replacement batteries. When it is cold, batteries can malfunction.
  To avoid that problem, keep replacement batteries in the vehicle, e.g. in the glove compartment;
- A warm blanket;
- Matches and candles;
- Warning devices and a lighting device such as a reflector or an electric lamp;
- A triangular warning flag to be placed several metres from the vehicle;
- A carbon monoxide detector.

In winter there are more objects to be put in the trunk:

- Snow brush;
- Window scraper;
- Shovel;
- Traction aids;
- Fuel-line anti-freeze;
- Bag of sand or salt.

To keep warm and be prepared for poor weather conditions, you could have:

- Gloves or mittens;
- Warm clothing;
- Boots, a scarf and a hat.

In winter, it can be practical to have a lock de-icer. Be careful however not to keep it in the car!

# SPORT UTILITY VEHICLES

Sport utility vehicles (SUVs) are appreciated for their sturdiness and performance on the road. Behind the wheel of these vehicles, some drivers think they can drive quickly and safely under any conditions. That is an attitude that could cost them dearly!

Four-wheel drive vehicles do not handle like other automobiles. A slight loss of control with a four-wheel drive vehicle can cause an accident.

The SUV is high and narrow. Its centre of gravity is higher than that of an automobile. That is why a four-wheel drive is unstable in curves.

Loading this type of vehicle can make it even more unstable. The greater the load, the higher the centre of gravity, especially when a load is being carried on the roof.

Driving in a straight line with this type of vehicle is usually not a problem. The vehicle does however have a tendency to tip when it is driven too fast in a tight curve. You can then lose control of the brakes when you are in a turn or when the vehicle first starts to skid.

The best way to avoid rolling over is to slow down before curves. The four-wheel drive is useful at low speed when it is snowing or when going uphill. However, return to the two-wheel drive as soon as possible. You need to know how to adjust your driving on the highway and on ice.

# SELF-EVALUATION EXERCISES

## Answers

### Chapter 1

1. a) Preventive attitude
   b) Vigilance
   c) Responsible
   d) Respectful
   e) Headrest
   f) Rearview mirrors
   g) Tires
   h) Visibility
   i) Preparation
   j) Verification

2. a

3. a

4. 1) a
   2) i
   3) e
   4) d
   5) g
   6) f
   7) b

5. a) False
   b) False
   c) True
   d) True
   e) False
   f) False
   g) False

## Chapter 2

1. c) Observe–Evaluate–Act

2. a) To a great extent

3. c) Seeing everything that is going on

4. a) False
   b) False
   c) False

5. a) Cyclist in the blue vehicle's blind spot
   b) Pedestrian at right
   c) Yellow traffic light
   d) Brakes on the green vehicle
   e) Bus's turn signal is on
   f) Ambulance

6. See section on blind spots

## Chapter 3

1. a) j
   b) b
   c) i
   d) h
   e) e
   f) c
   g) g
   h) f
   i) d
   j) a

2. a) c
   b) a
   c) b

3. a) b
   b) c
   c) a
   d) f
   e) h
   f) e
   g) d
   h) i
   i) g

4. a) f
   b) e
   c) d
   d) a
   e) b
   f) c

5. a) False
   b) True
   c) False
   d) True

6. a) c
   b) b
   c) a
   d) d
   e) e

## Chapter 4

1. a) True
   b) False
   c) False
   d) False
   e) False
   f) True
   g) False
   h) True
   i) True
   j) True
   k) False
   l) False, mini-buses and certain heavy vehicles must also stop.

2. Total stopping distance

## Chapter 5

1. a) False
   b) False
   c) True
   d) True
   e) True
   f) False
   g) True
   h) False
   i) True
   j) True

2. a) Move away
   b) Hazard
   c) Mislead
   d) Road

3. a) Completely
   b) Before
   c) Road users
   d) Signals

4. a

5. a) Sound your horn
   b) Keep as close as possible to the right of the road
   c) Look toward the place you want to steer the vehicle
   d) Ease up on the brake pedal to prevent the wheels from locking

6. a) Reduce your speed
   b) Increase the distance between your vehicle and the one in front of you
   c) Avoid abrupt changes in speed

# Chapter 6

1. a) Physical distraction
   b) Intellectual distraction
   c) Combination of both

2. a) Repeated yawning
   b) Tendency to stare (reduction in scanning)
   c) Itchy eyes
   d) Difficulty in concentrating and staying attentive
   e) Slower reactions

3. a) b
   b) d
   c) a
   d) c

4. a) C and f
   b) B and e
   c) D and g
   d) A and h

5. a) 2
   b) 4
   c) 10
   d) 1
   e) 9
   f) 3
   g) 5
   h) 8
   i) 7
   j) 6

6. a) False
   b) True
   c) False
   d) True
   e) True

# NOTES

Amendments to the Highway Safety Code included

# DRIVING A PASSENGER VEHICLE

Do you want to familiarize yourself with how to drive a motor vehicle, learn the right techniques and find out how to be safe? Do you want to refresh your knowledge about road safety? This handbook is for you!

It outlines:

- The basic manoeuvres for controlling a vehicle;
- A visual scanning method that teaches how to see everything happening on the road;
- Driving techniques for special circumstances, such as in poor weather conditions or when mechanical problems occur;
- Road safety tips;
- Energy-saving and environment-friendly tips;
- Self-evaluation exercises to verify your knowledge.

*Driving a Passenger Vehicle*: an indispensable tool to learn how to drive, how to drive safely and how to share the road with other users.

To complete your driver education and learn about road signs and signals and traffic rules, read the *Driver's Handbook*.

***Société de l'assurance automobile***
Québec

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