BOOK FOR THE DRIVING IN CHILE

motorists

class b license

CONASET
Ministerio de Transportes y Telecomunicaciones
Gobierno de Chile

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Presentation

The Driving Book in Chile is the official document to train new drivers in the country. This was prepared, and is constantly updated, by the National Traffic Safety Commission, CONASET. Institution that works on the prevention of traffic accidents and their consequences, along with the coordination of work on Road Safety.

This manual aims to instruct people to obtain a Class B Driver's License. Reading it is essential to understand, integrate and manage general and specific knowledge of the traffic regulations that govern in Chile. In addition, it contains the necessary information to internalize responsible and safe behavior in traffic.

Driving vehicles carries a high responsibility, it is important to study the aspects that make up Road Safety for all citizens. Learning to share the roads, always pay attention to traffic conditions, respect speed limits, always use the seat belt in all vehicle seats and the safe transportation of our boys and girls in Child Restraint Systems, are some of the key aspects to achieve lower accident rates.

We invite you to read, and above all, understand each content of this book, which will be constantly updated with the inclusion of new laws in pursuit of safe driving.

National Traffic Safety Commission.
CONASET.
2024

CHAPTER

1

Traffic accidents

Traffic accidents

Before we begin, we must know that it is a mistake to call traffic accidents “accidents.” An accident is defined as: “eventual event that involuntarily results in damage” and is associated with a casual and unpredictable phenomenon. It is for this reason that we have changed the concept of **accidents,** to highlight the importance of their negative effects and the responsibility of each road user.

Traffic accidents have little to do with chance or unpredictability. The behaviors and conditions in which the driver is most likely to cause an accident have been studied, therefore, work can be done to reduce its harmful consequences.

Most deaths caused by traffic accidents could have been avoided. To reduce the possibility of suffering a traffic accident, you must avoid the risk factors, detailed throughout this book.

If traffic accidents were “accidental”, how could we explain why they increase when it rains? Why are so many people killed by traffic accidents at night, when it is the period with the lowest flow of vehicles? Or why do people who have drunk alcohol have more accidents?

If a traffic accident were a possible event, the probability of suffering an accident would depend only on the amount of time we spend behind the wheel, but this is not the case.

Driving a vehicle implies collective responsibility. Let's think, is it a “personal decision” for a person to drive while intoxicated or not use their seat belt?
No, because if this driver suffers an accident it affects all of us, since we pay directly or indirectly for his decision.

Did you know that more than 3,000 people die every day in the world as a result of traffic accidents? These are the first cause of death in young people. Due to the above, international organizations, such as the World Health Organization (WHO), classify the situation of people involved in traffic accidents as a priority public health problem throughout the world.

In Chile, as in the rest of the world, traffic accidents are **one of the main causes of mortality.** In the child population, between 1 and 14 years old, it represents the first cause of death and in the young population, between 15 and 29 years old, it is the second cause of death after suicide.

In general, there is no awareness about the magnitude of the problem of traffic accidents in the world.
It is also not possible to quantify the number of people who, as a result of a traffic accident, are disabled for life and yet appear in the figures only as “injured”.

On the other hand, the suffering caused by a deceased person in their immediate environment is not valued. But there are studies that indicate that, on average, for every person who dies, about 100 people close to them suffer pain (family, friends, etc.).

In addition to the loss of human life, traffic accidents produce an enormous economic impact that, directly or indirectly, is assumed by all citizens. It is estimated that in Chile the costs of traffic accidents reach 2% of GDP according to WHO figures.

If this money were invested in education, housing, health and/or social aid, imagine the benefit it would represent for our society. If you do the math, each person pays an average of just over 6 million pesos annually, only considering the costs of traffic accidents that can be valued.

The following table lists the main costs caused by accidents. It must be taken into account that not all of them can be valued monetarily.

costs of traffic accidents1	
Material costs	■ Damage to vehicles and their cargo. ■ Damage to public property. ■ Damage to private property. ■ Damage to the environment.
Health costs	■ First aid, ambulance transfer. ■ Medical treatment of injured people. ■ Rehabilitation.
Administrative costs	■ Police and firefighters. ■ Insurance management. ■ Legal: Judges, lawyers, etc.
Human costs	■ Loss of productivity (during treatment and rehabilitation). ■ Loss of future productivity of deceased people. ■ Physical and psychological suffering of the injured person. ■ Physical and psychological suffering of family and friends.

(1) Source: Road Safety for New Drivers (INTRAS, DGT, Spain).

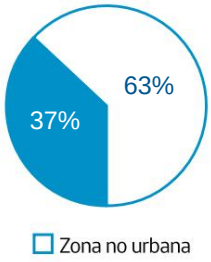
Claims statistics in Chile2

Annually in Chile, more than 82,000 accidents are registered. As a result of these, approximately 1,600 people die, which means that **between 4 and 5 people die daily on public roads.** On average 450 of them are run over.

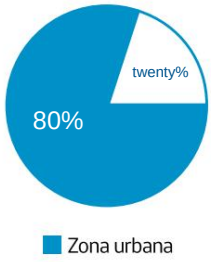
On average over the last 5 years, approximately 7,700 people were seriously injured in more than 82,000 traffic accidents.

The majority of people killed in traffic accidents occur on **interurban** or non-urban roads.

Dead people



Number of claims



Although the largest number of people killed in accidents is recorded on roads and highways outside urban areas, the largest number of accidents, approximately 80%, occur on roads or urban areas; Of these, the majority are recorded at street crossings or intersections. Only 20% of accidents occur in non-urban (rural) areas.

The **largest number of injuries** also occur on **urban roads ,** over 35,000 on average per year, however, these are mostly less serious than those injured on highways.

accidents in relation at vehicle speed

- The probability that a pedestrian will be killed by a vehicle **is multiplied by eight** when the vehicle speed increases from **30 to 50 km/h.**
- Pedestrians have **a 90%** chance of surviving impacts at **30 km/h or less.**
- Pedestrians have a less than **50%** chance of surviving a crash at **45 km/h or more.**
- At a speed of **65 km/h** it is most likely that a pedestrian hit by a vehicle **will die.**

There are conditions that have higher accident rates, such as weekends (normal or long), during the night and early morning, or situations of low traffic flow.

Furthermore, statistics indicate that **human error is present in more than 90% of traffic accidents,** mostly involving young people, between 18 and 29 years old. These represent approximately 29% of the total number of drivers killed in traffic accidents in recent years.

Finally, it should be added that nearly 79% of drivers killed in traffic accidents are men.

The recklessness of the driver, the consumption of alcohol while driving and disobedience to traffic signals are some of the factors with the highest incidence in the occurrence of accidents.

(2) These figures belong to the average of the last 5 years, until 2022. They are based on the statistics of the Carabineros de Chile, who count the deaths only within 48 hours of the incident.

Secure System

Since the first National Traffic Safety Policy in 1993, hard work has been done to reduce the high rate of road accidents in Chile. Which has meant numerous changes to the regulations related to traffic in our country.

Due to the new challenges that arise in terms of mobility, such as the increase in cyclists, the growth of the vehicle fleet and motorcycles, it has become vitally important to work on new approaches in Road Safety and thus avoid the loss of lives and reduce people seriously injured in traffic accidents.

This is why since 2017, the new National Traffic Safety Policy is aligned with the Safe System approach, which has been promoted by leading countries in traffic safety and establishes as an ethical principle that deaths and serious injuries in traffic **are unacceptable.** Therefore, the traffic system must be designed and used in such a way that no one is killed or seriously injured as a result of a road accident. This approach is known worldwide as **Vision Zero.**

This represents a paradigm shift in which human beings make mistakes and that the majority of these accidents occur due to a mistake. So, instead of correcting human errors, the approach is about addressing the risk inherent in traffic. Based on the above, we are working on measures aimed at the design of a complete system that supports and guides human behavior.

The Safe System approach is managed in such a way that the components of said system combine and interact to guide users to act safely and prevent traffic accidents; and if these occur, ensure that the impact forces do not exceed the limits that the human body can withstand before serious injury or death occurs.

fundamental and non-tradable principles of the secure system
1 Human beings make mistakes, which can lead to a traffic accident. “To err is human.”
2 The human body by nature has a limited ability to withstand the forces of an impact before damage occurs.
3 There is a shared responsibility between those who design, build, manage and use the roads and vehicles, along with those who provide care after the traffic accident occurs, to prevent it from resulting in death or serious injuries.
4 All components of the system must be hardened and if one fails, the other parts continue to protect the people involved.

CHAPTER

2

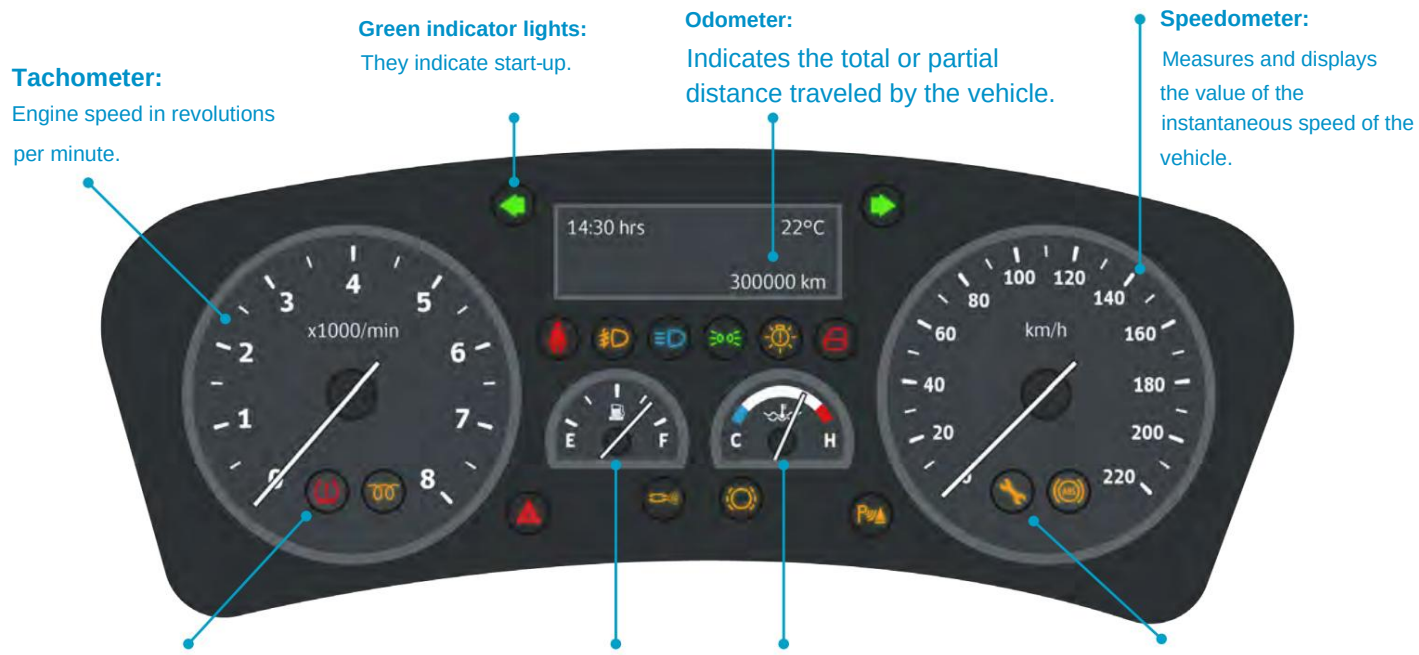
The principles of driving

The principles of driving

Car operation

In order to drive safely you must keep your car in good condition. To do this, you need to know how it is built and how its main parts work.

To begin, you must know the **instrument panel,** since it is the means of communication that was designed to alert you about the status of the vehicle's main systems:



Next, let's get to know the systems that make it up:

The motor

The engine is the part of the vehicle that allows all its systems to function. It is generally located in the front and can use gasoline, diesel oil, gas and/or electricity to operate.

Inside the vehicle, on the instrument panel, there is an element called a tachometer, which shows the number of engine revolutions at all times (see image above).

The lubrication system

This is the system responsible for distributing **oil** to all moving parts within the engine with the aim of reducing wear and friction between the surfaces of the components. This distribution is carried out under pressure and when this procedure fails, that is, when the engine is not being properly lubricated, the **oil pressure indicator light** comes on on the instrument panel , indicating that the oil level is low. . If it comes on, you must stop the engine immediately and do not start it until it has been repaired, as this can cause serious damage.

Oil pressure warning light

We recommend checking the oil level and adding more if the level is low. Additionally, periodically change the oil and filter, according to the vehicle manufacturer's recommendations. Use recognized oils and don't forget to check the seals on the containers.

The electrical system

It is the one that is responsible for providing electrical energy to the other systems of the vehicle. This energy is produced by the **alternator** and stored in the **battery.**

Battery indicator

The alternator converts mechanical energy into electrical energy thanks to the movement of a belt that comes from the engine. When this belt is not very tensioned, less electricity is generated, generating a decrease in the battery charge. If this happens, you will know by the **warning light** or the corresponding needle on the instrument panel.

A poorly charged battery causes the vehicle to have difficulty starting, especially when the temperature is low. When your vehicle's engine does not start when you turn it on, it is very likely that the battery is discharged or disconnected.

On the other hand, you should know that for your safety, all accessories that use electricity are almost always provided with fuses to prevent fires or damage to the electrical system. So, if any electrical unit stops working, the first thing you should check is if a fuse has blown.

In the case of light bulbs, if one does not light up or if the turn signal control light flashes more quickly than usual, it is likely that a light bulb has burned out.

REMEMBER TO CONTROL:

- The fluid level in the battery. Add distilled water when necessary.
- That the alternator belt is sufficiently terribly tense.
- That the battery cables are securely fastened.
- The charging light while driving. If it lights up or flashes it means there is a problem.

Be careful! **Battery acid is corrosive;** Be careful with your clothes and skin.

The fuel system

This system is responsible for supplying fuel to the engine for its correct operation.

If you smell a **strong gasoline smell** while driving, you should stop. to investigate the cause of the problem. This way you can **prevent the risk of fire in your vehicle.**

On the fuel gauge ble, the letter **E** means empty, from the English “Empty”, and the letter **F** indicates, full pond, from the English “Full”.

WHEN LOADING GASOLINE, REMEMBER:

- Turn off the vehicle engine.
- Avoid inhaling vapors emitted by gasoline.
- Do not light cigarettes.
- Do not talk on the cell phone.
- Remember to use the appropriate octane rating for your vehicle's engine, according to the manufacturer's instructions.

RECOMMENDATIONS TO REDUCE THE POLLUTION ASSOCIATED WITH FUEL:

- Avoid opening the lid more times than necessary. Gasoline fumes can be carcinogenic.
- Fill the fuel tank every time you go to recharge. It will pollute less by releasing fewer gases.
- Avoid frequent braking and acceleration as they cause high fuel consumption.

The cooling system

This system has the mission of cooling the engine to maintain the appropriate temperature during operation. This process uses a **coolant** (distilled water plus antifreeze) that constantly circulates through channels in the engine block and passes from there to the radiator.

When there is a blockage in the cooling system, little coolant and/or a broken or poorly tensioned water pump belt, the engine temperature rises. If this happens, you must stop driving and repair the fault.

Nowadays, most vehicles have an electric fan that activates when the temperature rises (especially when driving at low speed). If this does not happen, it may be due to a faulty contact, a damaged fan belt, or a damaged fuse.

On the temperature indicator, the letter **C** means cold, from English “Cold”, and the letter H, hot, from English “Hot”.

It is also important to note that at sub-zero temperatures, the coolant must contain a sufficient amount of antifreeze to prevent the engine and radiator from being damaged by the freezing of water, be sure to use the appropriate type of fluid for your needs.

The exhaust system

This is the set of elements and ducts that facilitate the expulsion to the outside of the gases that have been generated in combustion, in order to improve the performance of the engine and its noise.

An abnormally loud noise from the exhaust pipe is usually a sign of cracks or holes in the muffler.

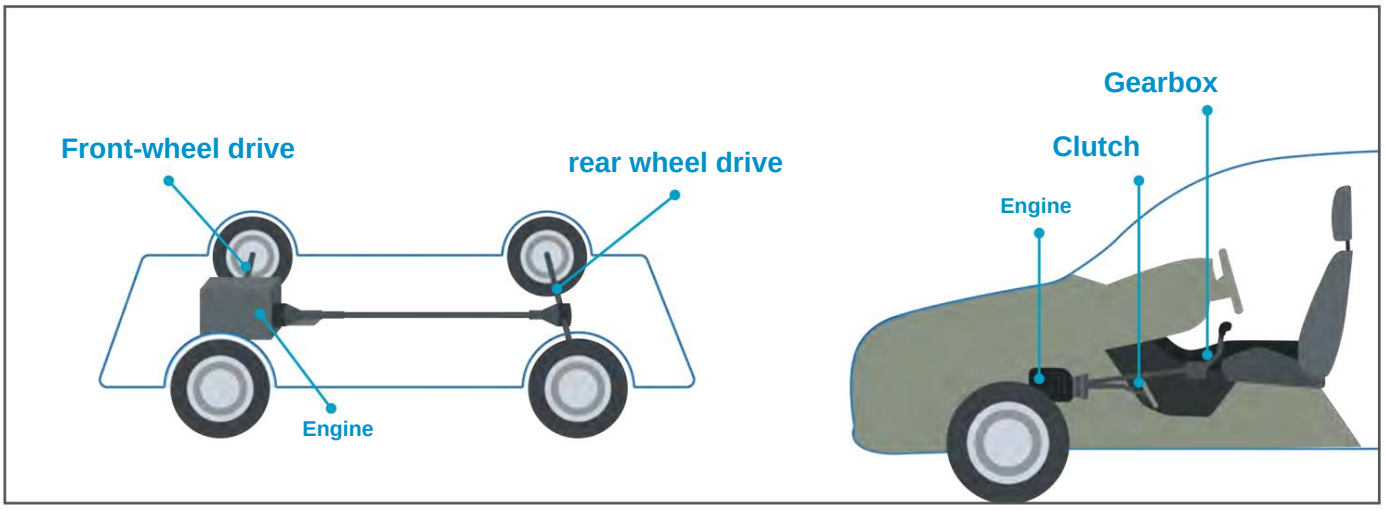
These exhaust gases contain toxic substances, among them is carbon monoxide, a poisonous, colorless and odorless component. For this reason, it is very important to check the correct operation of this system, which is prone to oxidation or damage, causing this gas to penetrate the interior of the vehicle. The same can happen when driving with the trunk open. . The first symptoms of carbon monoxide poisoning are headache and vomiting. At the slightest sign of poisoning, get out of the vehicle and breathe fresh air.

The broadcast

It is the system responsible for transferring the power generated by the engine to the wheels of the vehicle. There are front-wheel drive and rear-wheel drive vehicles. There are also four-wheel drive vehicles.

You should know that driving by pressing the clutch for a longer time than necessary reduces control over the vehicle.

This energy is directed to the drive wheels through the **clutch,** the system (pedal) that allows the transmission or interruption of energy to the drive wheels. This process is moderated by the **gearbox,** where it is possible to manually control the gear shift and speed of the car.



There are various types of gearboxes, classified as **automatic and manual,** these are differentiated by the use of the gear lever and, in the case of automatic vehicles, the lack of a clutch pedal.

The gearbox multiplies the force of the engine. This can have 3, 4, 5 or more gears. Each gear is used in a range of speeds, allowing fuel use to be optimized.

The direction

The steering system is responsible for transmitting the movement of the steering wheel to the wheels. So that this process requires minimal human effort, there is an auxiliary mechanism called **power steering.**

You should know that the steering misaligns more quickly when the vehicle is subjected to overloads, as well as when it hits the edge of a sill or other obstacle, or falls into holes. This causes the wheels to vibrate and increases tire wear.

Some of the signs that will tell you if there is a defect in the steering, or low air pressure in the front tires, are: feeling the steering heavy, hearing an excessive squeak when turning or, if when driving on flat terrain, the vehicle It tends to go to one side.

Suspension and damping

These systems are responsible for maintaining contact between the tires and the road surface at all times, guaranteeing the stability of the vehicle and providing comfort to the driver. These systems play a key role in maintaining the desired trajectory and absorbing asphalt irregularities.

Given their relevance to our safety and that of other people, it is important to learn how to monitor these systems and identify potential problems. Consult the mechanic if they have any signs of failure.

symptoms of bad shock absorbers

- When braking, the vehicle leans forward and stands up from behind excessively.
- When driving, the vehicle sways excessively on good roads and leans excessively when cornering.
- When loading a front side end, the vehicle vehicle bounces or oscillates.
- While driving, road disturbances (e.g. potholes) and side winds are significantly noticeable.
- Tires wear unevenly.
- Driving at night, the lights oscillate in a striking way.

It is important to periodically check the condition of the shock absorbers, always following the vehicle manufacturer's instructions, and replace them when they are no longer safe

A shock absorber in poor condition can have dangerous consequences, such as:

- Vehicle with loss of stability, especially in curves, with side wind or when driving on a wet surface.
- Increase in braking distance, especially on uneven or wet pavement (if the vehicle also has ABS brakes, this system will lose effectiveness).
- More frequent wear and failure of other elements of the vehicle.
- Decreased comfort while driving. Fatigue appears more easily in those who drive.

The breaks

The brake system allows you to reduce the speed of the vehicle, even stopping it, therefore, it is important to supervise and maintain them and know how to react in the event of a total failure, to avoid a traffic accident.

Handbrake warning light

All vehicles have two braking systems, which act independently of each other:

1. The **service brake** (brake pedal) is generally hydraulic and acts on all four wheels. Older vehicles have only one hydraulic circuit system, which means that if the brake pipe breaks somewhere, all the fluid disappears, and with it the braking effect on all wheels. Instead, modern vehicles are equipped with two-circuit braking systems. Thus, if a fault occurs in one circuit, a certain braking effect is maintained in the other.

Worn brake pad warning light

2. The **parking brake** (handbrake) is mechanical and generally acts on the rear wheels. Many cars have a brake booster system, which considerably increases braking force. This technology works only with the engine running. That's why you have to be careful when being towed or if the engine stops on a downhill slope.

Error indicator in system ABS brakes

It is important to know that at temperatures below zero it is advisable to do braking tests at low speed. If you are driving on a flooded street, or if you have recently washed the vehicle, you must eliminate, also by braking, any moisture in the drums, especially if the vehicle has been parked.

Additionally, you should know that there are 2 types of brakes, conventional brakes and **anti-lock brakes or ABS.** These work differently so it is extremely important to know what type of brakes the vehicle you are traveling in has.

In an emergency situation, where it is necessary to stop the vehicle as quickly as possible, it should be considered that one of the greatest risks in the event of sudden braking is that the vehicle's wheels lock and slide on the pavement. When this occurs the braking distance will increase significantly. Furthermore, in these conditions it is impossible to control the direction of the vehicle, so there is a high probability that the obstacle cannot be avoided.

The ABS (anti-lock braking system) detects the moment the wheels lock and slightly reduces the pressure on the brakes, while the brake pedal is kept fully depressed. It allows the wheels to continue turning and the driver to maintain control over the direction of the vehicle.

If the ABS were to fail, the brakes will continue to function.

It should be taken into account that if a vehicle has this system incorporated, the braking distance, in the case of emergency braking, could increase compared to the distance without ABS.

REMEMBER TO CONTROL:

- Check the brake fluid level periodically, according to the manufacturer's instructions. This is not consumed, therefore, if it decreases it is because there is some mechanical defect. Furthermore, if the level is low it can cause an accident.
- That the brake pedal travel is not too long. It is acceptable if you can depress the pedal above half of its distance from the ground.
- That the brakes act evenly on all four wheels. If they are poorly adjusted, during sudden braking, the uneven effect can cause the vehicle to veer to one side.
- That the position of the pedal does not decrease when you have it pressed strongly. If this happens, there may be leaks.
- That the pedal feels rigid and not elastic. If the pedal gives way at its pressure point, air has probably entered the system.
- Let the brake lights work.
- Possible cracks in the hoses through which the brake fluid circulates. Check them, making sure there are no stains on the floor due to leaks.
- The brake fluid deadlines, indicated by the vehicle manufacturer. Once they expire, you must change all content.
- That the handbrake works correctly.
  This must keep the vehicle stationary on a slope or prevent it from starting with the brake on.
- The condition of brake discs and pads. You should check them periodically and pay attention to noises produced by their use.
- The operation of the brakes through low-speed braking tests if you have: driven on flooded roads, washed the vehicle or if the vehicle has been stored for a long time.

Although you can carry out some of the recommended checks yourself, in other cases you must go to a mechanical workshop.

The tires

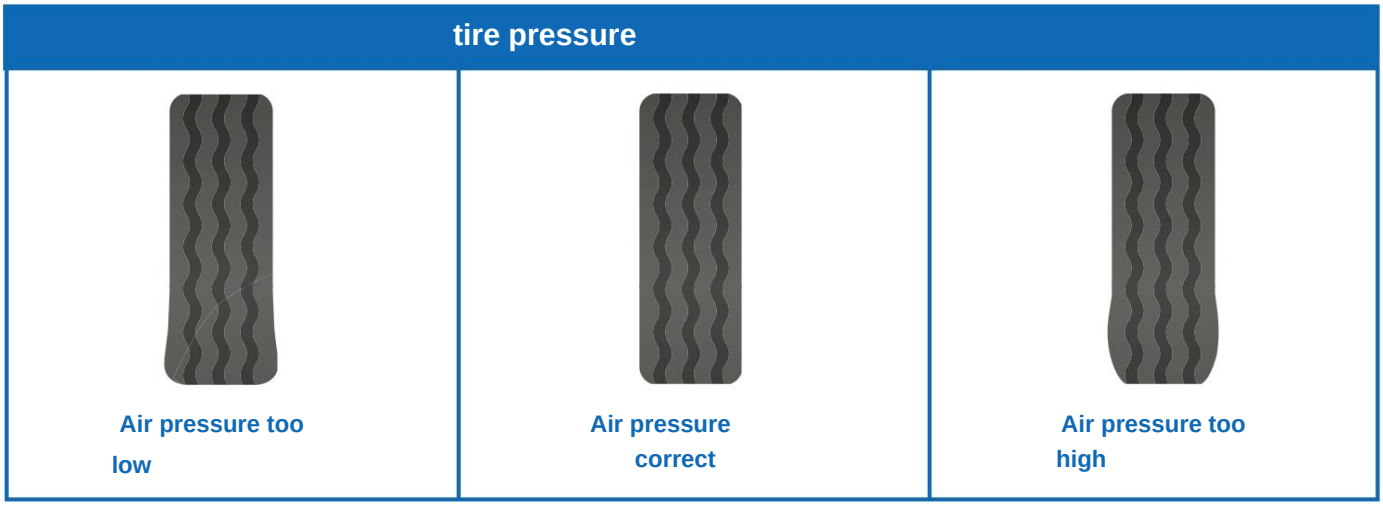
The tires are the only point of support of the vehicle with the road, therefore, it is vitally important to check them regularly.

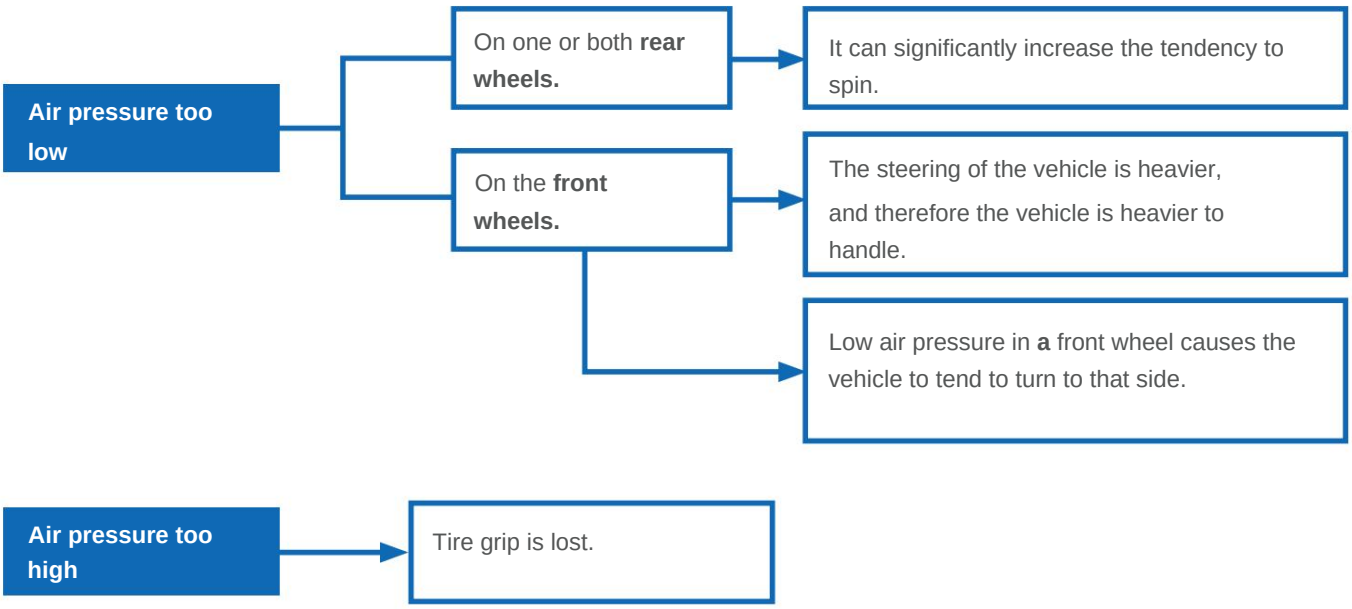
Their grip provides the necessary security under any weather condition, even in difficult situations.

Of the different elements of a vehicle, the tires are the ones that require the most inspection by the driver.

For tires to perform their braking, grip and direction functions well, the patterns or grooves on their treads must have a minimum advisable depth of 3 mm. When the depth of such treads is very low (less than 1.6 mm), friction with wet pavement worsens, increasing the risk of losing contact with the pavement due to the layer of water that forms ahead. of the tires. You should get into the habit of periodically checking your tires and checking that their groove depth wear detectors do not indicate that the depth of the grooves is less than 1.6 mm.

Additionally, it is important to check the air pressure in them. This must be constant throughout the year.





Uneven wear may be due to alignment or damping problems, or because you've been driving with inadequate air pressure. You must keep the tires at the pressure indicated by the manufacturer to prevent the car from skidding.

Noticeable wear in the central area of the tread means that the tires have been used with excess air, while wear only at the ends of the tread indicates that they have been used with less air pressure than recommended.

Tire pressure warning light

Importantly, what to do in case of a tire burst

If a **rear** tire blows out while driving , you should turn the steering wheel toward the side where the tail of the vehicle is deflected.

If otherwise a **front tire blows out,** you should brake gently by holding the steering wheel firmly.

In both cases, you should stop slowly on the side of the road.

REMEMBER:

- Check the tire pressure when they are cold and respect the manufacturer's recommendations. If the pressure is adjusted when the tires are hot, the pressure will be lower than adequate. Inadequate pressure contributes to the risk of skidding.

- Periodically inspect the hard tread. It should not have deep cuts or cracks.

- Driving at a moderate speed prolongs the life of the tires.

- Keep in mind that situations such as driving with a load, or on bad pavement or hot weather, can accelerate tire wear.

- Slightly increase the tire pressure when carrying a very heavy load.

- Make sure the tires are correctly balanced.

- If you detect something abnormal in the tires or in the behavior of the vehicle (such as vibrations when driving, for example), it is good to seek advice from a professional. There could be an imbalance problem.

- **Tires should be changed at least every 5 years.**

Even if they have little use and their tread is good, the material ages and loses its properties to roll safely.

It is recommended that you go to a professional to advise you on changing tires.

- If you climb steps or sidewalks with your vehicle, deformations in the rims and cuts or tears in the tires may occur.

- When you leave the spare tire in your vehicle, make sure it is at the highest suggested pressure and, if you have to use it, do not exceed the maximum speed indicated by the manufacturer.

Lights

All vehicles must be equipped with spotlights and exterior lights to be able to see and be seen by other people when driving in the dark or when visibility is reduced, as well as to be able to warn others of certain situations or the intention to do something. maneuvers.

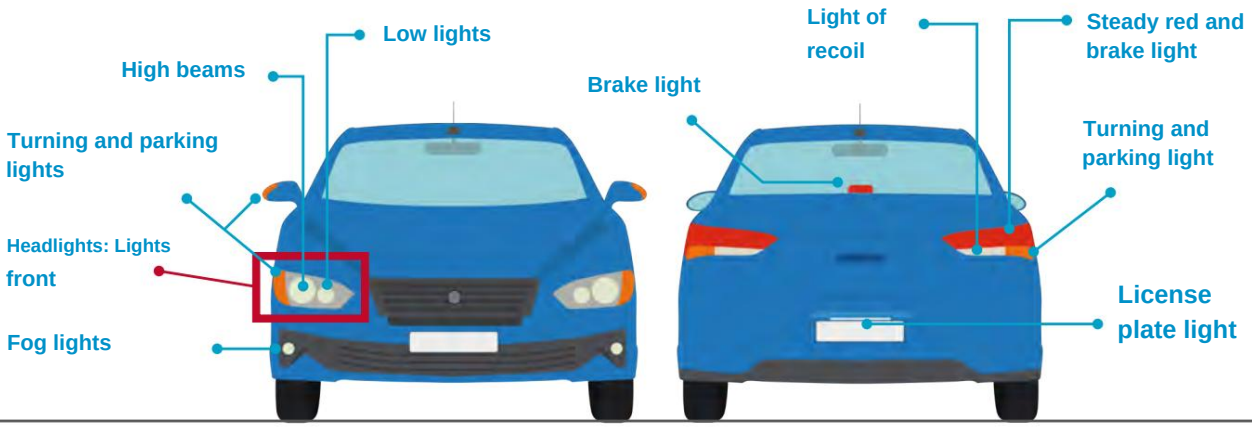
Thus, automobiles and, in general, motorized vehicles with 4 or more wheels, must have the following spotlights and exterior lights:

Front: Two spotlights that project high and low beams, two parking lights and two flashing turn signals.

Rear: Two parking lights, two flashing turn lights, two reverse lights, two solid red lights, two brake lights and one light that illuminates the vehicle's license plate.

The position of the lights will depend on the model of your vehicle.

Additionally, it must have a third brake light located in the center of the rear window of cars, jeeps, vans, station wagons, vans and school transport vehicles.



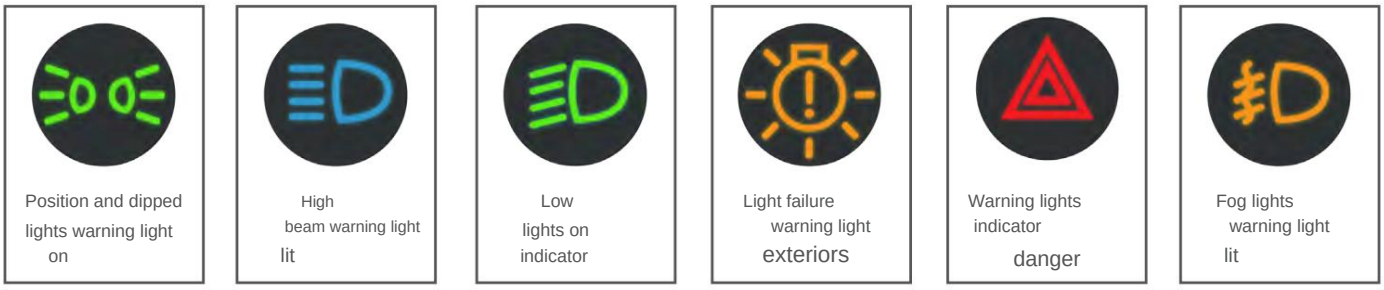
Make sure your lights are clean, working, and their high and low beam bulbs are properly adjusted. A poor adjustment can dazzle other road users and cause an accident.

You can control your low beams so that they do not blind other people by parking your vehicle in a flat place and about 10 m from a wall or something similar, then turn on your low beams and check that the height of the light projected on the wall is less than the height of your vehicle's headlights relative to the ground level.

Hazard warning lights: Flashing hazard warning lights should only be used when the vehicle is stopped as a result of a fault or breakdown, to warn that temporary

traffic is being obstructed, as well as to warn the drivers behind you of a danger or obstruction ahead, such as when you are being towed. They should be used only for as long as necessary for other people to notice your warning, never as an excuse for dangerous or illegal parking.

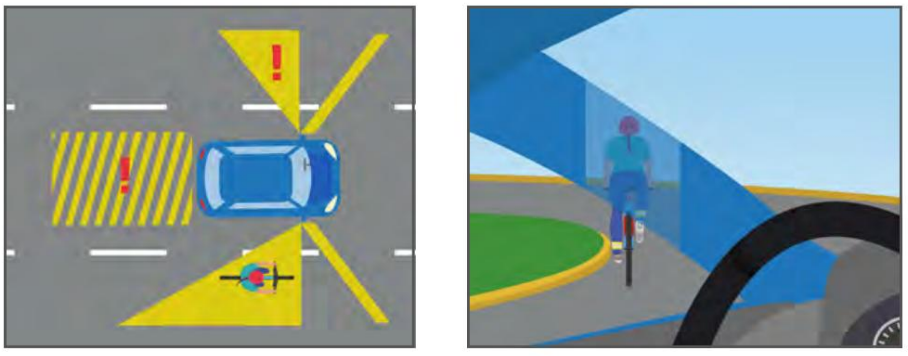
Fog lights: Some vehicles, in addition to having the aforementioned lights that are mandatory, are also equipped with fog lights. These can only be used when visibility is considerably reduced, either as a result of fog or heavy rain, and should be turned off as soon as visibility improves.



The mirrors

Mirrors allow the driver to see traffic behind them and to the right and left of the vehicle. Most side mirrors are convex, so images appear farther away than they are in reality.

Keep in mind that even if your mirrors are very well adjusted, when driving there will always be an area over which you will not have vision. These sectors are called **blind spots** or dead angles (in the image they are indicated in yellow).



You must be especially careful with vulnerable users, that is, pedestrians, cyclists and motorcyclists. Remember that these do not have a body to protect themselves and absorb the impact of a traffic accident.

BEFORE DRIVING, CHECK:

- Seat belts
- Wiper washer
- Ventilation
- Windshield cleaning liquid
- Tires
- Rear window defogger
- Lights
- Brakes
- Mirrors
- Doors
- Horn

YOU SHOULD ALWAYS MAKE SURE OF:

- When you take the wheel, your arms are slightly bent.
- Have good visibility through the front windshield, rear window and side windows.

If not, activate the fan, adjust the air nozzles and turn on the rear window defroster.

- Adjust the mirrors to have good visibility to the rear and to the sides. You must see the most possible from the road and the vehicles behind.
- Keep the doors closed. If you take girls and/or boys, make sure they are securely fastened and that They cannot open the doors from the inside.
- Carry reflective devices for emergencies, fire extinguisher, spare tire and tools necessary to change them.
- Do not carry any loose objects in the vehicle that could injure someone in the event of a sudden stop.
- Have footwear that allows you adequate control of the pedals.
- Look around you and check blind spots before putting your vehicle in motion.
- Have clean lights, glass and mirrors to always have good visibility.

Energy and physical laws

The energy of movement

You have to keep in mind that people traveling in a vehicle are subject to the physical laws of movement and their consequences. For example, a vehicle approaching a curve tends to continue traveling in a straight line. By moving the steering wheel of the car, you are deviating from the straight path it would follow because of the force of inertia, however, if you drive at too high a speed, the friction may not be enough to keep the vehicle on the road.

By doubling the speed, the energy of the movement increases 4 times, which must be kept in mind, for example, when approaching a curve, since it will be more difficult to maintain direction.

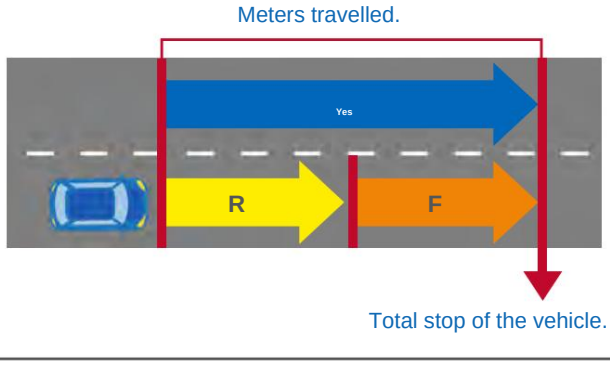
It is always important that you try to anticipate the condition of the road in advance, that you estimate the radius of a curve well and that you pay attention to obstacles you may encounter, such as fallen leaves, fuel spills or something else that could cause the road to is slippery.

When facing a curve, reduce your speed early before the curve begins and accelerate gently when exiting the curve.

The magnitude of the **centrifugal force** or lateral force that tends to push the vehicle off the road in a curve depends directly on the speed and how sharp the curve is.

Stopping distance

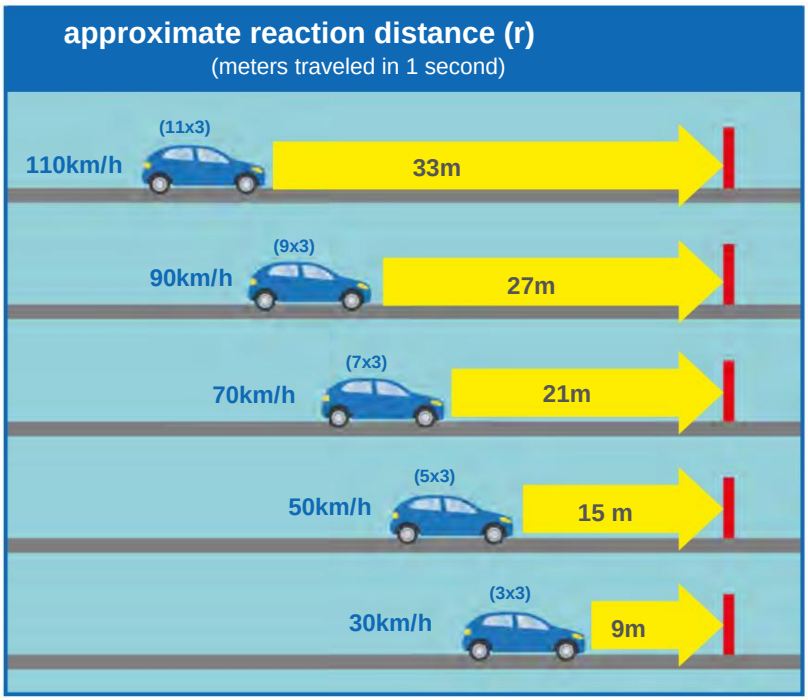
The **stopping distance** is the sum of the **reaction distance** (R) and the **braking distance** (F).



Reaction distance is the distance the vehicle travels (maintaining its trajectory and speed) while the driver reacts to a situation. This depends on the person's reaction time and the speed at which they are traveling. **A normal reaction time is one second.** In this second, a vehicle traveling at 36 km/h travels 10 meters, 20 meters if it travels at 72 km/h, etc.

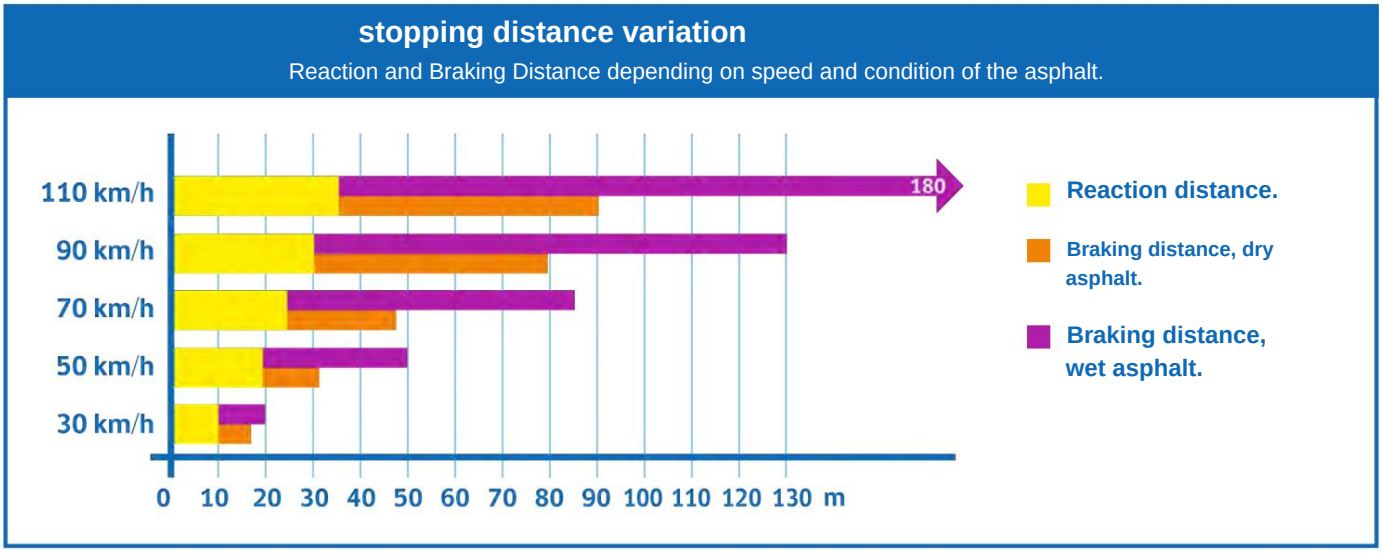
In addition, there is the variable related to driving experience, which allows for better reaction times.

You can roughly **estimate** the reaction distance by multiplying the first speed figure by three. This exercise is valid up to 99 km/h. For speeds over 100 km/h, you must consider the first 2 digits (see reference image).



Braking distance is the distance the vehicle travels from pressing the brake pedal until it comes to a complete stop.
This depends on the speed, the condition of the road, the slope, the condition of the brakes and tires, and the way of braking.

Braking distance increases squared with increasing speed. Thus, if you double your speed, the braking distance increases four times; If you triple it, the braking distance increases 9 times, etc.



As for how to brake, there are several ways. The driver who plans his driving by reducing pressure on the accelerator in time and reducing his speed, uses the brake pedal less and increases his safety.

In unexpected situations it is necessary to know how to brake correctly. It has already been pointed out that stuck wheels prevent the vehicle from being guided. Therefore, when starting to brake, you should press the brake with as much force as possible. If the vehicle does not have ABS brakes and the wheels lock, immediately reduce the pressure on the brake pedal by releasing it.

The force of gravity

If you have ridden a bicycle and tried to brake when going downhill on a steep slope, you have probably experienced that there are forces that can cause you difficulties. That same phenomenon occurs when you drive a motor vehicle. Therefore, when you see signs warning about steep slopes, take time to go down them. Sometimes it is necessary to drive in a low gear so that the engine slows down and the brakes do not heat up.

Remember to never disengage the engine as you will lose control of the vehicle.

Characteristics of vehicles and their influence on driving Vehicles have differences that must be kept in mind before driving. Therefore, before getting behind the wheel of an unfamiliar car, ask yourself these questions: Does it have front-wheel drive, rear-wheel drive, or all-wheel drive? What type of brake system do you have? Where is your center of gravity located?

It is important to know the risks involved in shifting the vehicle's center of gravity, that is, the point where its greatest weight is located. For example, a front-engine vehicle is typically heavier at the front, and thus has a tendency to turn less. Therefore, if you place a heavy load on its rear, it will tend to turn more than expected and, upon losing friction with the pavement, it will make a 180º turn and continue traveling with its rear facing forward.

When a car has its center of gravity at the rear and you take a curve, the vehicle turns more than you thought, and if it loses friction with the pavement, it will swerve (or skid), spin, and continue on the road. direction of movement, but with the rear facing forward.

Another factor that can influence whether a vehicle turns more or less than expected is the air pressure in its tires.

Regarding wheel traction, if you have a front-wheel drive vehicle and you accelerate faster than friction allows, the wheels will begin to slip on themselves, which can lead to losing control of the vehicle and not being able to turn. . If this happens, stop accelerating and resume your trajectory.

On the other hand, if you have a rear-wheel drive vehicle and the wheels lose friction, one or more tailspins may occur. Under these circumstances, continue accelerating and turn direction towards the trajectory.

A four-wheel drive vehicle provides considerably better drivability on difficult pavements. Otherwise, these four-wheel drive vehicles behave the same as the rest.

Security elements

active safety elements	passive safety elements
They are the systems that serve to prevent the occurrence of a traffic accident. For example: tires, brakes and lights.	They are the safety components of the vehicle that contribute to avoiding or reducing the consequences of a traffic accident. For example, the seat belt and the airbag.

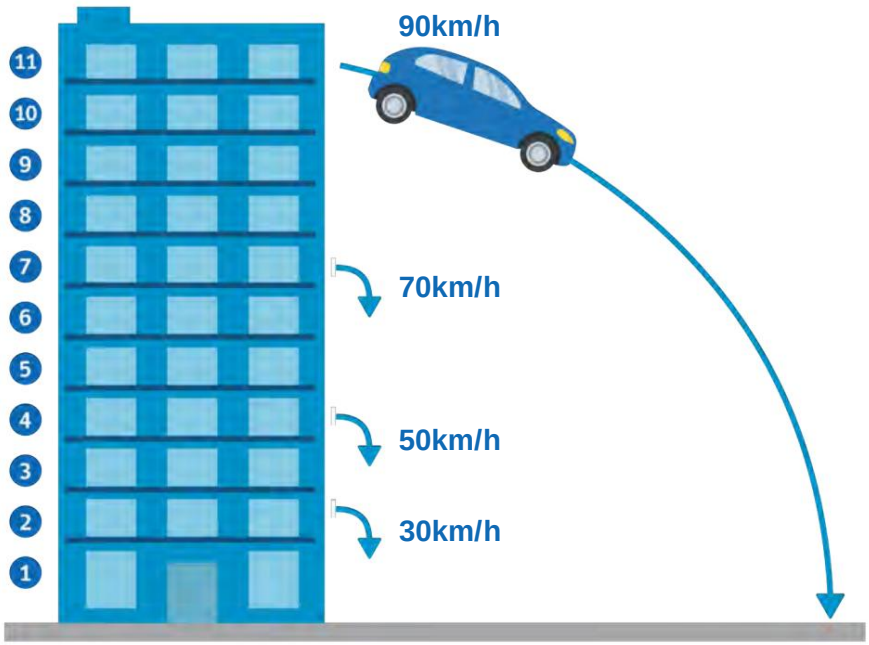
Previously, some of the active safety elements have been reviewed. Next, we will learn in detail about some passive safety elements.

Seatbelt

Seat belts have the function of saving lives and reducing the chances of suffering injuries in an accident. In addition, they provide greater comfort, better control and help reduce fatigue.
All people traveling in the car must be securely restrained, even those traveling in the back seats. Never allow two people to travel secured with the same seat belt.

The use of this element in the rear seats is mandatory only if the vehicle has a year of manufacture 2002 or later.

The seat belt must be used correctly, otherwise this device will not provide adequate protection and may also cause serious injuries.



A crash at 50 km/h without wearing a seat belt is like jumping onto the street from a fourth floor without a safety net. If the speed is 70 km/h, this is equivalent to jumping from the seventh floor.

Crashing at a speed of 90 km/h causes the same effects as a fall from the 11th floor.

After an accident, the belt may be damaged and may no longer be safe to use. In this case you will have to replace it with a new one. Review it after any eventuality.

correct use of seat belt

Thoracic band: crosses from the top point of the shoulder to the hip.

- The thoracic band **should pass over the collarbone,** halfway between the shoulder and neck, and **should go down the center of the chest.**

- If it is placed on the neck or chest, it can cause serious injuries during the accident.

  If placed over the shoulder, it can slide out during an accident, minimizing its effectiveness.

Abdominal band: between the two lower fixation points.

- The abdominal band should be placed **over the hip bones,** always **below the abdomen,** even in the case of a pregnant person.

- If placed on the abdomen, it can cause serious internal injuries during the accident.

Once fastened.

- Once you have fastened the belt, you should stretch it slightly upward so that it fits **snugly to your body.**

  You should always make sure it is not snagged or twisted and that the closure is in good condition.

- If the belt has slack, you will travel a greater distance during the accident, potentially impacting the steering wheel or windshield.

  If the bands are not stretched properly, the belt will lose effectiveness and may cause injuries during the accident.

Proper use of the seat belt prevents the so-called **underwater effect,** which occurs when the person, during the accident, slides under the abdominal belt.

how to avoid the underwater effect

- You should always **drive in a proper posture;** Do not recline the seat excessively, since you should not drive “semi-recumbent”.
  Always remember that a proper posture behind the wheel facilitates the proper functioning of the seat belt.
- **Do not put towels or pillows** (both on the seat and behind your back), **or some special covers.** All these elements can favor the person's sliding, canceling the seat's characteristics focused on avoiding the underwater effect.
- Make sure the **belt is properly tensioned.** The submarine effect appears more easily if the belt is not properly adjusted to the body. For this reason also avoid driving with bulky clothing.
- **Put on your seatbelt properly;** If you put the abdominal band on incorrectly, you are more likely to slide out from under it.

The consequences of not wearing a seat belt are not individual. People who are propelled forward from the back seat not only injure themselves, but they can also injure the driver or anyone riding in the front seat.

Some drivers refuse to use seat belts, giving excuses that call into question the effectiveness of this passive safety element. Next, let's analyze some of these:

“I am not going to suffer accidents, therefore, I do not need to wear a seat belt”

Nobody expects to suffer a traffic accident, but the fact that we have not suffered any accident does not mean that we will never suffer one.

“Surviving a traffic accident depends on luck or chance, so the seat belt is not of much help”

The study of thousands of accidents shows that people who do not wear seat belts are **twice as likely to die** in them.

“In the event of an accident, it is much safer to be ejected from the vehicle”

If a person suffers an accident and is ejected from the vehicle because they are not wearing a seat belt, **the probability of suffering a spinal cord injury increases by 1,300% and the probability of being killed increases by 300%,** which clearly demonstrates It is much safer to stay inside the vehicle.

“In many accidents, people were trapped inside the vehicle by the seat belt and died because they could not get out in time”

Studies and statistics reveal that **every 1 million, in just one accident, wear a seat belt.**

rity can be negative. Experience shows that, on the contrary, in the majority of accidents the seat belt can save the lives of the vehicle occupants or prevent serious injuries.

“The seat belt is not necessary when driving on urban roads, where traffic speed is low”

Nearly 80% of accidents with victims occur in urban areas. For example, **a head-on collision at just 30 or 40 km/h could** easily be fatal if the person's head hits the windshield or steering wheel, which is often the case.

“If the route is short, there is no need to wear a seat belt”

We have already pointed out that suffering an accident is always possible, so it is important to wear a seat belt on all trips. Furthermore, **the majority of accidents with victims occur a few kilometers from their homes.**

“My vehicle already has many safety systems, so the seat belt is not that important”

No vehicle safety device is capable of replacing the belt, and **all of them are even designed to work in a complementary way to the belt.** For example, if the airbag deploys in a frontal collision and you are not wearing your seat belt, you could be seriously injured when the airbag inflates.

“The belt is uncomfortable”

To the extent that you regularly use your seat belt, that initial discomfort that some people experience will disappear. Many people over time come to feel uncomfortable and unsafe when they do not wear a seat belt.

“During pregnancy, you should not use the belt, as it is dangerous for the baby”

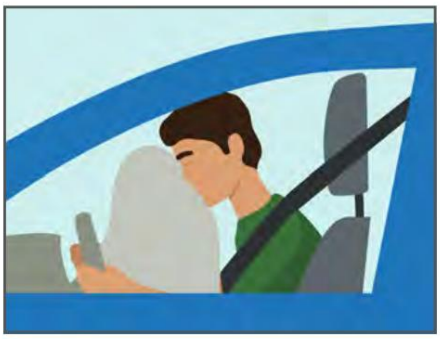
Pregnant people should also wear a seat belt, because the risk of injuring and losing the baby during an accident is greater if they do not wear it (for example, if she hits her belly against the steering wheel).

“There is no need to wear a seat belt in the back seats.”

In an accident, people in the back seats who are not belted can be ejected, possibly fatally hitting other people; Their use can not only save your life, but also prevent serious injuries to the other occupants of the vehicle.

The airbag

The airbag is an air bag that inflates in just a few thousandths of a second upon impact. There are different types: side, head, front, rear, among others. In addition, there are different types of technology so that they are activated in the event of an impact.



It is recommended that, when purchasing a new vehicle, you inform yourself about the existence of airbags in it and their operation.

The airbag is not effective if it is not used in conjunction with the seat bel

This passive safety element allows the occupants of the vehicle to be protected in the following ways:

1. Gently brakes the movement of the occupants, preventing deceleration forces from causing damage to them, especially to the head (for example, it reduces the probability of cervical injuries).

2. Prevents the impact of the occupants against some elements inside the vehicle: the steering wheel, the dashboard, the windshield or the windows.

3. Protect your face and eyes from fragments of glass or other elements that may fall, for example, from the windshield.

When an accident occurs, the airbag inflates at a speed of up to 300 km/h, so if the belt does not restrain the person and the airbag hits them before it has fully extended, it can causing serious injuries due to the enormous force of the blow.

The effectiveness of the front airbag is based on the combination of the use of the seat belt, a good position of the hands in front of the steering wheel and the adjustment of the headrest at ear level. It has been estimated that the **use of a front airbag in conjunction with the seat belt can reduce the probability of suffering fatal injuries by 20%.**

You should never put a Child Restraint System in the front seat.

When the airbag system fails in its rest state, the airbag warning light will come on and it should be checked as soon as possible.

Airbag warning light

The headrests

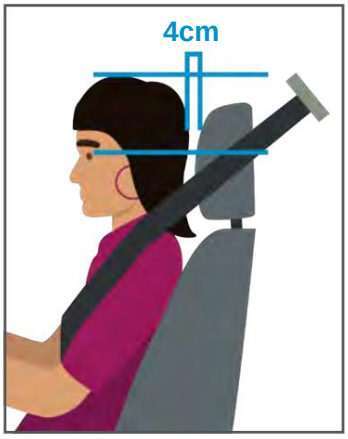
When a vehicle suffers an impact from behind, it is subjected to forward acceleration, which causes the seat to push the person's body forward as well. If its head is not supported, it oscillates with respect to the torso, which causes a violent change of direction in the neck, which takes the shape of an “s” at first and then goes backwards. This movement is called **the whiplash effect.**

The way to prevent this effect and associated cervical injuries is by using headrests. Not using it correctly could lead to a cervical sprain, a very dangerous injury and much more common than we think. This can affect various structures of the neck, such as muscles, joints or ligaments, and results in muscle pain and headaches, a decrease in neck mobility, vertigo or dizziness, among other discomforts, which frequently occur. They could last a few months.

Sometimes the injuries caused by whiplash become much more serious. For example, if the cervical vertebrae are damaged, the person could suffer some type of irreversible disability, such as tetraplegia.

the correct use of the headrest

- The exact position is behind the head. The upper edge of the headrest must be located between the upper limit of the head and eye level. This position must be adjusted for each person inside the vehicle, in the front and rear seats.
- You should never place it below your head, this causes its effectiveness to be drastically reduced.
- The separation between the head and the headrest must be minimum possible and never greater than 4 cm.



CHAPTER

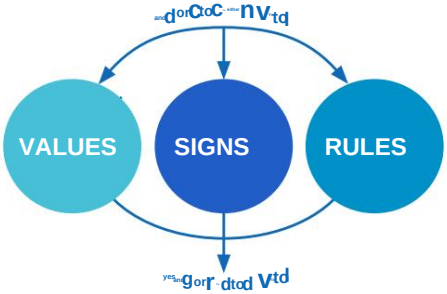
3

Road Coexistence

Road Coexistence

Good Road Coexistence is one where vehicle drivers, road users, pedestrians and passengers respect each other, resulting in a harmonious and safe interaction. To achieve this goal, it is necessary that all people involved have an adequate level of **Road Safety Education.**

Road Safety Education is the acquisition of essential **values** for driving, which tries to instill positive habits and attitudes of coexistence such as respect (respect for your life and that of other people), solidarity, understanding, forgiveness and tolerance. .
In addition, it is the incorporation of behavioral **norms** (Traffic Law) and knowledge of a catalog of **signs** that affect traffic. All this in order to contribute to **Road Safety.**



The goal of Road Safety is the total elimination of traffic accidents, based on their reduction and the minimization of their consequences. For this to happen, you must have an adequate and real **perception of risk.** This perception, in the majority of drivers, is usually below the real risk, since it is usually a subjective and unrealistic perception, which results in the perceived risk being practically zero.

You should know that while driving a car you run risks and that incorrect behavior in these circumstances can endanger your life and the lives of other people. The recklessness and lack of practice of those who drive are the greatest risk when driving.

The country's automobile fleet has grown incessantly in recent years, which is why the number of accidents that occur has also increased. To combat this growth in road accidents, we must all collaborate. The first step is to eliminate the idea that “traffic accidents only happen to others.”

Most of the accidents are not accidental. You have to be aware and acquire an objective perception of risk, since **most accidents are avoidable.**

> **Nearly 90% of traffic accidents with victims are the product of human failure, errors produced by drivers with a wrong perception of risk.**

Many times car drivers, wanting to demonstrate their driving skills, are not aware of the risks to which they expose other users by engaging in reckless behavior such as driving at excess speed, overtaking in areas that are not permitted. or failure to respect other traffic signs. By not respecting a red traffic light or a marked pedestrian crossing, you are not only committing a violation of the Traffic Law, but you are also attacking Road Coexistence, putting yourself and other people at risk.

main risk factors

- Distractions are an **important** factor and one of the main causes of accidents.
- **Alcohol and drugs,** which reduce the ability to drive.
- **Fatigue, tiredness, sleepiness or drowsiness,** taking **drugs** or driving in stressful situations .
- **Inadequate speed,** present in the fourth part of the accidents with victims.

All of these risk factors can lead to loss of control of the vehicle.

To practice safe and responsible driving and to reduce the chances of suffering a road accident, **risk factors** must be eliminated as much as possible .

These types of erroneous behavior go against orderly coexistence in traffic and against the **principle of trust** that inspires it, where all drivers expect each member of the traffic to fulfill their role, which is to respect the rules of coexistence and road behavior.

You must be aware that these actions or infractions do not go unpunished, although you will not always be inspected and punished, these recklessness can trigger a traffic accident where you and other people are affected.

Whoever runs a red light does not ignore the regulatory meaning of that light and knows what sanctioning consequences it would have if it were seen by Carabineros or Inspection personnel. This behavior weakens the principle of trust.

Road Safety Education is essential in the social and individual education of people, since each and every one of us will be pedestrians, cyclists, vehicle users or drivers at different times in our lives. We need Road Safety Education to live in an orderly and respectful manner with other people, and in a friendly, positive and fair environment.

About the Road Environment

The roads on which vehicles circulate make up the Road Environment. But this Road Environment is much more than streets or roads on which you can circulate. This is a space for social coexistence, an environment in which people develop as human beings. Vehicles are driven by people, streets and highways are used by people, and all of these people are actually **traffic.** In order for traffic to be orderly, safe and to avoid accidents, there are rules that must be followed and that are based on a series of principles such as trust .

Without this principle you would not be able to go out on the street, if you did not trust that other people would fulfill their role, no one would dare to drive your car. When driving, everyone is expected to respect their direction of traffic and not invade yours, respect traffic lights, give way when they have priority, etc.

Road Coexistence requires a commitment to Road Education, a commitment to other people and to yourself. Those who drive cars must be aware that they are members of the traffic, along with pedestrians and cyclists, who are vulnerable users.

Caution **is** the fundamental principle when driving a vehicle. We must be aware and admit that all people can make mistakes and make mistakes, therefore, you must be aware of traffic conditions, practicing defensive and preventive driving to guarantee your safety.

Your attitude when driving a car must be one of **respect** towards other people and towards yourself. You must maintain a safe, responsible and calm attitude at all times, which will help you drive better.

In the Road Environment, **solidarity** is the best virtue you can have when driving a vehicle. This allows this environment to function harmoniously since actions are carried out such as giving way, leaving enough space to allow people to pass you, being considerate of vulnerable users, among other practices in pursuit of good road coexistence.

keys to road coexistence

- When you must drive, do not do so by transforming the occasion into a moment of annoyance or anguish.
- To drive safely you must be sufficiently protected. Always use your seat belt, and make sure those accompanying you also use it.
- You must always drive at a speed appropriate and safe, which allows you to maintain control of the vehicle and react in time to any unforeseen situation. Your haste should not put your life or the lives of other people at risk. Take as much time as necessary to drive.
- Just concentrate on driving.
- Adapt your driving to the weather conditions. matic, environmental and pavement.
- Always remember to see and be visible. Prevention will always be your main defense.
- Maintain a sufficient and prudent distance from other vehicles and users.
  Do not assume that other drivers have noticed your presence. Drive defensively.
- Always respect traffic rules and learn their meaning.
- Keep your vehicle in perfect working order.
- Drive only if you are in the best physical and mental condition.
- Be a considerate and kind person other road users.

The person in traffic

Person in transit

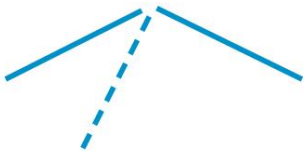
People who drive a vehicle have a great responsibility and are constantly solving problems. We know that the capacity of human beings has a limit, which we usually forget when taking the wheel. Therefore, it is important that when you start as a driver, you are aware of how traffic users act, and their ability to make decisions.

It is necessary to practice driving and obtain confidence in the face of **visual stimuli and their perception,** thus giving rise to safe decisions, since traffic rules cannot always offer the clarity to know how certain situations are resolved. What is decisive in many cases is common sense, good judgment and responsibility. This is acquired through driving experience, translated into hours behind the wheel.

International statistics indicate that novice drivers suffer traffic accidents (in which other vehicles are not involved) 10 times more frequently than those with more driving experience.

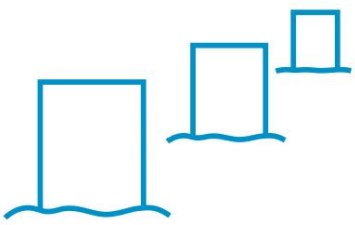
Making good decisions contributes to respectful and safer traffic.

visual effects in driving

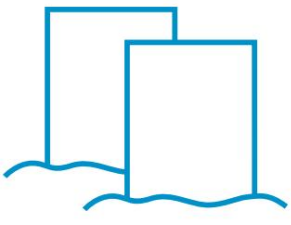


Linear perspective: converging lines appear to meet at a point that is further away than they really are.

Pattern density: occurs when there is a greater density of objects, causing them to be perceived as farther away than they are.



Relative size: it is the effect that occurs when objects of the same size are perceived as different sizes due to the distance between them and the person. The most distant object will be interpreted as one of smaller size but this is not really the case.



Overcovering: an object covering another appears closer to the eye.

Next, we will analyze the route of a driver:

It is getting dark, it is cloudy and visibility is reduced.
The road seems to disappear at the end of a slope ( ). The speed is 90 km/h and the driver sees the road continue beyond. He expects there to be a curve to the left, he just decides to change the radio tuning and when he returns his attention to the road, he is surprised that the curve was to the right, being forced to maneuver suddenly, at the same time he slows down. the pressure on the accelerator. Luckily, the pavement is dry and has good friction.

1

After the curve to the right there is a curve to the left, and shortly after this something that appears to be a motorcycle approaches, but turns out to be a car whose left headlight is off ( ).

2

The motorist is then forced to slow down, as he is about to overtake a cyclist and the road is too narrow to accommodate three vehicles; the risk is very high.

Subsequently, the driver comes across a vehicle whose low beams are very powerful (perhaps poorly adjusted), and surprisingly discovers a pedestrian walking a few meters in front of his vehicle. This pedestrian is not wearing anything reflective, but luckily he was walking on the edge of the road, which allows him to avoid an accident ( ).

3

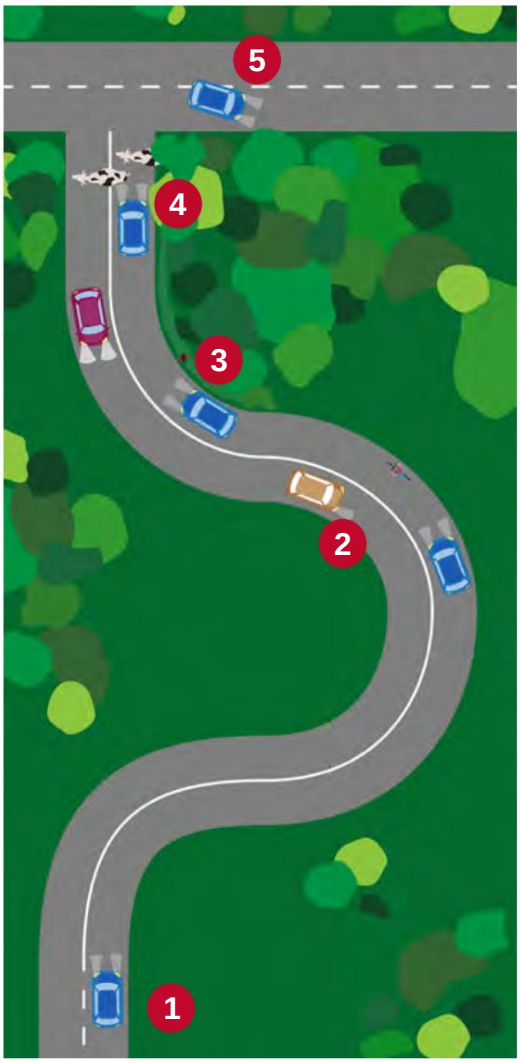
The driver begins to feel a feeling of disgust. He thinks about what happened in the last kilometer and, at the same time, at 90 km/h, he enters an area with forests on both sides of the road.

With your attention scattered, you discover two animals crossing from left to right, about 100 meters in front of your car. The driver brakes slightly and continues at a lower speed, as he will then turn to the right ( ).

4

He quickly reaches the intersection, and when turning right, he crosses the center line, which marks the axis of the road (although, an 5). Without emaccident did not occur because there were no vehicles coming from the opposite direction.

Fortunately, the driver arrives safely at his destination.



You can see this animated story by clicking here the QR code.

Throughout these kilometers, important aspects of traffic and driver behavior have been revealed. These will be examined, conjecturing about what could have happened.

In position 1, the driver misinterpreted the terrain: he expected a curve to the left, but the curve was to the right. Then, in the same way, he misinterpreted the car that had a broken headlight, believing it to be a motorcycle.

These **misinterpretations of the environment,** which are quite common, can be very dangerous.
They arise when the indications regarding distance and shape are insufficient or unclear.

Other examples of erroneous interpretations are when driving through mountainous or winding terrain, one has the sensation of going downhill, in circumstances that it is going uphill; or when a vehicle's dirty or weak headlights make it appear to be further away than it really is.

A kind of stereoscopic image appears once the brain has made its interpretation, but this ability to perceive distances works only when it comes to short distances. At distances greater than 50 m, signs and clues from the environment become more important when judging distances.

Why is it important to know this? Because, sometimes, you will partially lack certain clues or they will be presented in a confusing way or even non-existent, for example, when there is fog, when it is dark or when you are dazzled by light; and the result can be very dangerous misinterpretations. Therefore, a good rule is to show distrust of one's own perceptions and not drive when tired.

Lack of concentration

Let's go back to the driver's case we just presented. Surely, a contributing cause of his being surprised by the right turn was the fact that he lost concentration when he turned his attention to the radio tuning change.

Doing two things at the same time can be very risky, especially for drivers with little driving experience. On the one hand, because they can more easily lose control of their vehicle, and, on the other, because they could have greater difficulty facing a difficult situation.

In addition to keeping both hands on the wheel, it is important to concentrate on traffic. Therefore, you should not drive if you feel upset or upset about something that has happened to you and avoid arguments while driving. Emotional problems that divert your thoughts, focusing on the radio, a telephone, smoking or eating while driving, negatively influence traffic safety.

Distracted driving is the cause of many accidents. If you are distracted, you will have less time to react to an unforeseen event, since it will take longer to receive information. Driving requires your full attention!

Reaction capacity

In the story, the driver reacted quickly when he was about to go off the road on the first curve: he demonstrated good reaction capacity. The movement of the steering wheel and the reduction of speed saved the situation.

The **reaction time** of drivers is of great importance when faced with a difficult situation. However, you must keep in mind that in a comparison between those who have a shorter reaction time and those who drive at low speed, it is the latter who will be able to stop the vehicle first.

It is often thought that young drivers react faster to any situation than older drivers. This is false. The reaction time of a young person is usually shorter if it refers only to the simple reaction; That is, the reaction to a signal that you know is going to occur, but these types of situations do not occur very frequently in traffic.

In real situations that require complex reactions, where many impressions must be interpreted quickly, expert drivers have a much faster reaction. The “fastest” age group corresponds to those between 35 and 50 years old. Subsequently, as age increases, the reaction time becomes longer.

Visual ability

The driver was surprised to discover a cyclist a few meters from his vehicle. This leads us to think about our ability to see in the dark and discover important objects in transit, since human beings do not have the visual acuity of other living beings, such as hawks and felines.

When driving in the dark , **blindness effects** are common , since, even though you are not looking directly at the lights of vehicles coming in the opposite direction, it is possible that some rays of light are reflected into the eye, worsening vision for a short time.

Adjusting to changes in lighting takes some time. When you go into a dark room from daylight and full sun, at first it looks very bad; For some moments you may not even see anything.

The actual temporary blindness that occurs when looking directly into the headlights of a vehicle has a much larger and more prolonged effect, and can cause serious risks of accidents.

When a temporary blinding effect occurs, the visibility distance is 0 meters.

Other occasions of blindness can occur, for example, when after driving in a tunnel you come out into the sunlight, or when the sun shines directly into your eyes at dusk.

Let us remember that the driver in our story discovered the pedestrian a few meters away. Perhaps this was because the lights of the vehicle coming in the opposite direction were poorly adjusted. But the truth is that the visibility distance at an intersection for vehicles with low beams does not exceed 15 or 20 meters; When there is no such crossing it is possible to see the road markings up to about 70 meters.

Discovering people or animals on the road can be very difficult in certain circumstances. Therefore, you must keep in mind that there will always be the possibility of encountering an obstacle on the road. Be careful.

HOW TO CONTRIBUTE TO INCREASE YOUR VISIBILITY

Wearing visibility-friendly clothing is a way to contribute to your safety and that of others. Dark clothing reflects only 5% of light; white clothing 80%, and reflective materials between 90 and 98%.

Selective perception

What has been analyzed so far refers to the limitations of the eye to see in the dark, given that the driver took a while to discover the pedestrian who was walking ahead. But there are also other causes that limit vision. In fact, what is most important is not always seen in a timely manner. People function in such a way that they discover what they are willing to see, that is, what they expect to find. In other words, **what is not expected to be seen will not be discovered or will take much longer to do so.**

When driving, you are exposed to a large number of sensory impressions but you do not have the time necessary to discover and pay attention to each one, so the brain must select the stimuli or information to which it will pay attention. **This selection and interpretation do not depend on chance, but are influenced by expectations, needs and the state of surveillance.**

The above is applicable to all people and is usually called **selective perception.** However, there are differences between different people in how they grasp and interpret a situation. Thus, what one person has seen may not have been perceived by another, and the interpretation of a fact may be very different from one person to another.

After the perceptual process has been carried out, which is very fast, an **action is decided.** This action, in combination with that of other users and the road, leads to a **result,** which provides experience and new knowledge.

Due to selective perception, there is a risk of overlooking important circumstances in traffic.

Let's return to the story, to the moment where the driver confronts the animals crossing the road. Surely, he did not have the slightest premonition that these two cows might appear, which is why he was not prepared for it either. Let's remember that the driver was in a hurry, when we are in a hurry we try to do without everything that "gets in the way" of driving. The need to arrive at the destination quickly has the effect that everything that is “not relevant” has no place in consciousness. In that case a kind of repression mechanism dominates. Awareness and consideration of the emergence of risks should lead to a reduction in speed, but this may be a setback for a driver who is in a hurry.

Location

Previously, we saw how the driver had difficulty perceiving important objects. In part, this was due to the eye's limitations in seeing in the dark, as well as the phenomenon of selective perception. But there is also another important factor: **the way the driver looks while driving.** Where, in what order and for how long does the driver look? These three factors depend on the ability of each person and vary with experience.

In order to understand better, we must know how our eyes work.

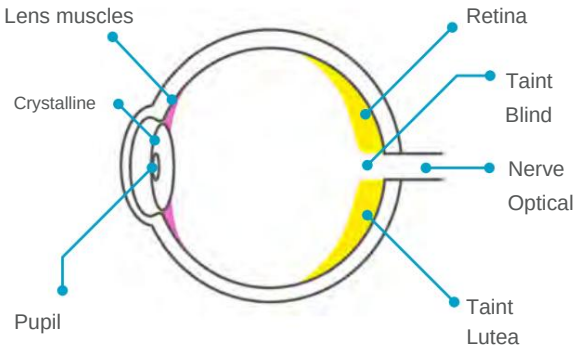
How does the human eye work

- The **pupil** regulates the entry of light by varying its size; This increases in the dark. The **lens** causes the refraction of the light ray so that it ends up on the **retina** (in a normal eye).

- The refractive capacity of the **lens**
It can be modified by the muscles and fibers that contract and relax.

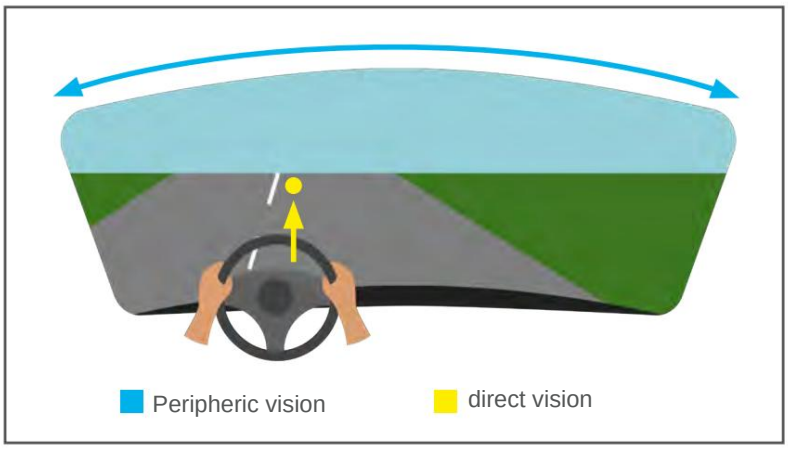
- The **retina** covers a large part of the posterior end of the eye and contains cells that transform light rays into electrical signals, which are transmitted through the **optic nerve** to the **brain,** where the image is perceived.

- At the point where the **optic nerve** enters the eye is the so-called **blind spot or macula.** There are no visual cells in this, so the reflection of an object in it cannot be perceived.



exercise. Close your left eye and stare at the circle with your right. Keep the book about 30 cm away. You will see the cross in your peripheral vision. Slowly bring the book closer to your face. At a certain distance the cross will disappear. The reason is that it has ended up in the blind spot.

In the outer parts of peripheral vision, visual acuity or sharpness is less than 0.1%, even in people with normal vision. In the illustration, the yellow circle corresponds to the area where you have the best visual acuity. With this in mind, it will be easier to understand the importance of correctly locating your gaze in traffic.



The main thing is the **effect of rapport** between direct vision and peripheral vision.
Things are discovered with peripheral vision and recognized with direct vision. For example, if you see something in the right corner of your eye, you move your head and eyes and recognize it.

Even if it is not seen very clearly with peripheral vision, it is essential that something is seen. Normally you have a field of vision of just over 180º. A significant reduction in this can cause serious difficulties in orientation ability.

Experienced drivers take advantage of their peripheral vision more than those who have recently driven. This is because they have a more systematic localization technique, versus people who are new to driving, who almost always see what is near the vehicle and concentrate their gaze on fixed objects.

A reduction in vision, of any kind, can significantly influence the driving ability. A satisfactory visual field and vision that allows you to clearly perceive objects at different distances during the day and night are essential to be able to resolve the most complicated traffic situations.

When driving, it is essential that if you notice any type of alteration in your vision, you consult your doctor and take the measures indicated.

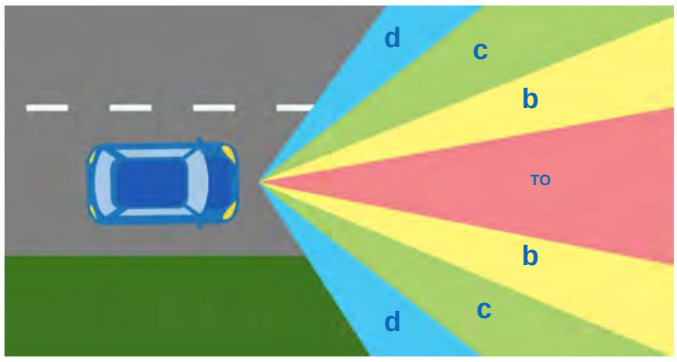
Limited information processing

If you return for the last time to the driver's case: at the intersection, he crossed the road center line when turning right. This was probably because he underestimated his speed.

Underestimating your speed can be very risky, especially because you can misjudge the braking distance.

Among other causes, such underestimation occurs when getting used to a certain speed and not receiving the sensory impressions necessary to realize the speed at which you are going. Modern automobiles have a fairly silent and vibration-free ride, which makes it easier not to notice the speed at which you are driving. Likewise, monotonous driving on a straight, well-maintained road also presents no changes in terms of visual impressions.

The limitations of the brain's ability to process information are not only reflected in an erroneous estimate of the speed one can travel, but also when trying to capture information or when judging the distance between other vehicles.



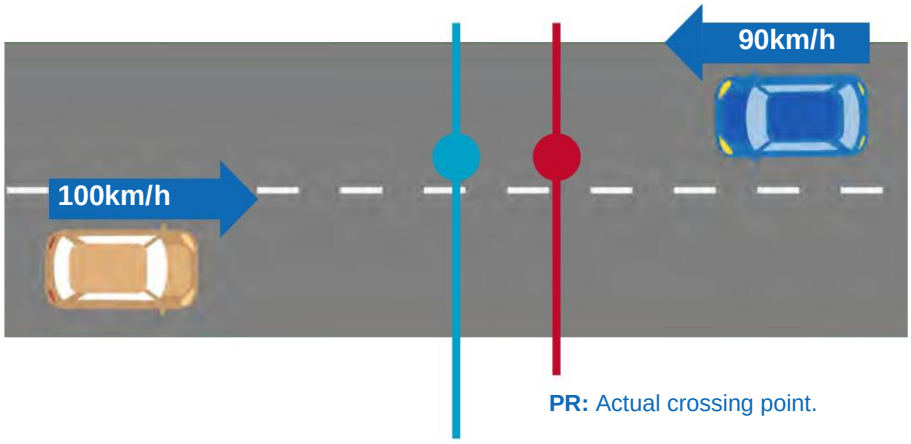
speed	Visual field
A: 130km/h	30°
B: 100km/h	42°
C: 65km/h	70°
D: 35km/h	100°

As an example, we can mention the phenomenon called **tunnel vision,** where the field of vision reduces as speed increases.
As the image shows, the higher your speed, the further you focus your gaze, so you see only part of your field of vision and cannot discover what is on the sides of the road.

This tunnel vision effect also occurs when the person driving is in a state of stress.

Another phenomenon related to limited information processing is that which occurs in the **estimation of the meeting point between two vehicles.** Calculating the speed of vehicles coming in the opposite direction is very difficult, and normally, the estimate of the place where the vehicles will intersect turns out to be an estimate of the midpoint of the distance between them; That is, the brain assumes that vehicles travel at exactly the same speed, which rarely coincides with reality.

As can be seen in the image below, if you are driving at 90 km/h and you come across a vehicle doing so at 100 km/h, the **actual crossing point (PR)** will be closer to you than the **estimated point (PE). .** The magnitude of the error, which is the difference in meters between PR and PE, will increase the greater the difference in speed between your vehicle and the one coming in the opposite direction.



PR: Actual crossing point.

PE: Estimated point for the crossing.

If the brain were capable of carrying out this type of calculations, many traffic accidents would not occur.

Safe driving requires emotional balance

Reasoning and decision-making capacity

To qualify for a Driver's License it is necessary to have reached the age of 18 (or exceptionally 17) since this is the age that society has set as the moment at which the **degree of maturity** required to be a responsible driver has been reached, which is capable of deciding, with sufficient reason, what to do or not to do. For this, it has the adequate development of its organs and has psychological mechanisms to control its impulses that go against its own decision.

Unfortunately, this scenario is not the same for everyone. The figures show that **young drivers are more frequently involved in traffic accidents** than those who are older and more experienced.

Next, we will review the **explanation of this phenomenon,** which will allow you to recognize your shortcomings when driving, correct them and reinforce those positive behaviors:

Young people have particularities specific to the life stage in which they find themselves, which influence a greater vulnerability to suffering traffic accidents. Some of these features include:

- **Excessive need for self-affirmation,** which makes them more competitive and willing to not obey traffic rules.
- **Driving ability is overrated,** so they do not consider it necessary to take safety measures such as putting on a seat belt.
- **Exhibitionist behavior in groups,** which leads them to perform risky maneuvers when they are with company.
- **Taking a lot of risk when driving,** which can be related to competition with other vehicles.
- **Influence of advertising,** especially that which encourages risk.

Young people are prone to taking risks while driving due to their low risk perception. There are **5 factors that influence the evaluation and acceptance of danger,** and that could explain their behavior that leads to a greater tendency to suffer accidents:

1. **Attitude towards traffic.** They do not perceive driving as something that can be dangerous, so it is difficult for them to adopt prudent driving behaviors.
2. **Attributions about behavior.** Many young people believe that they drive better than everyone else, so they attribute mistakes to other people.
3. **Driving experience.** Many people within this age range do not have much driving experience, which means they do not perceive the risks well.
4. **Level of control.** They are very confident in their ability to control the vehicle in dangerous situations, so they take more risks.

5. Low risk perception. Many young people do not see risky situations as dangerous (for example, driving after drinking alcohol), so their behavior will be more risky.

Being a good driver requires a lot of knowledge and skills: you have to be able to register many sensory impressions in time; The brain must be able to interpret these impressions and make a quick decision; You have to put yourself in the situation of other road users, you have to be able to act with determination and correctly, and something very important: **you have to be a cautious person.**

In reality, one can barely understand the number of processes that the brain has to carry out, and it is thought that everything will work automatically when complicated situations arise while driving. However, if the speed is only slightly exceeded, the capacity limit is quickly exceeded and the driver makes a mistake. Young drivers have not always had the experience necessary to determine where the limit is, which usually causes them to make more mistakes than more experienced people. In addition, young people have less practice and therefore have greater difficulty correcting their mistakes on the fly.

Ability to adapt to reality On the other hand,

to be a responsible driver, you have to adapt to reality in traffic.
That is, we must be able to distinguish which behaviors are appropriate and in what context. For example, there are those who travel making reckless and imprudent maneuvers imitating racing drivers, endangering road users, thus not respecting the laws and regulations that govern in the context of traffic.

The identity

Possessing an identity implies having a clear idea about who you are, what principles and values you have, what you want, what you know and what limitations you have. During the period prior to achieving an identity, in which one seeks to know the limits, mistakes can be made, which can often be fatal. In the case of a young driver this can unfortunately mean, for example, testing the maximum speed of the vehicle, trying to pass a sharp bend at 80 km/h or trying to beat the time record it takes to drive a certain distance.

You must know your abilities and limitations, and be able to accept that you have shortcomings, which at a certain moment could be the cause of wrong behavior.

Self-control

Knowing how to control yourself in situations that affect your most vulnerable side is also a sign of personal maturity. Controlling possible irritation or anger, even when another road user has behaved incorrectly, or you perceive it to be that way, is essential to making good decisions.

Aggressiveness causes a situation to be perceived and judged incorrectly and also leads to impulsive decisions.

You must have the ability to maintain attention and concentration for a long time. A recurring example of distraction that decreases your attention on the road is wanting to see a notification on your cell phone.

Responsibility

Maturity has a direct relationship with a responsible attitude. For Road Safety to exist it will depend largely on your responsibility. As a driver, show consideration towards other users, following traffic rules and facing the consequences of your actions.

Empathy

To drive, the development of empathy is essential. A harmonious coexistence requires the active participation of all actors. Understanding towards other people, generosity and tolerance must be ensured. These behaviors lead us as drivers to try to help, to feel in community with others and to be considerate of vulnerable users, that is, cyclists, motorcyclists and pedestrians.

Managing social pressure

Sometimes, when a person is in the company of others, they react in an unusual way. She does things she might not do alone. In some ways, other people's presence and opinions mean a lot. Thus, being the one driving when traveling in the car with friends may require higher demands than when driving alone.

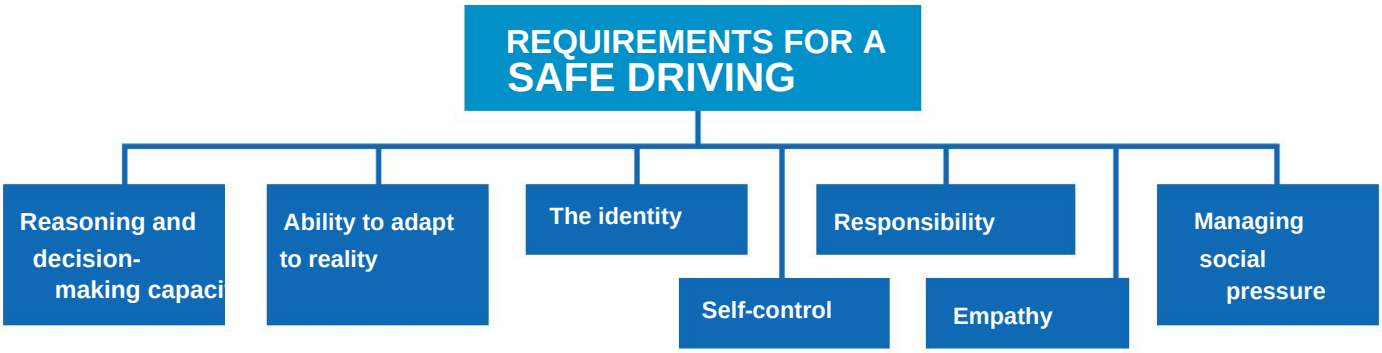
As a driver you must be attentive to your own reactions. Does the presence of your friends influence the way you drive? Do you want to impress them? Do you feel insecure and afraid of making a mistake that will provoke criticism and jokes?

The influence of the group can be highly negative and contribute to unforeseen actions.
We usually talk about group pressure, to refer to the process of social influence of the group towards you, which leads you to act following the group's wishes. This is not necessarily always negative. Group pressure can also have a positive effect if values and principles of safety and responsibility towards other road users prevail.

If your companions or the group have ingested drugs and/or alcohol, it is likely that more than one person will express their ideas in a rowdy and aggressive manner. Will you be able to refuse the group's demands to drive faster, accelerate violently and perform risky maneuvers? Or will you not be able to bear being called a fearful person if you refuse to transport more passengers than your vehicle can accept, or being laughed at for your prudence in driving?

In many traffic accidents, one might ask, to what degree was the group responsible for the accident occurring?

It is important that you show and encourage responsible and positive attitudes, practicing the basic traffic safety rules, becoming an autonomous and safe driver.



Behaviors that involve risks

Research has concluded that there are behaviors or variables, such as those described below, that facilitate traffic accidents or conflict situations.

1. Impulsivity

Impulsivity, which means acting without thinking, without foreseeing the consequences, is almost always negative. It frequently leads to actions that cause loss of control of the vehicle or surprise other road users, with the consequent risk of accidents.

2. Not taking the blame

Certain people have a great propensity to blame others and refuse to see their own behavior in the development of events. They evade their guilt with pretexts, which in most cases generates the irritation of other people. They do not assume their responsibility and, therefore, they do not modify their behavior, nor gain valuable experiences, thus slowing down their personal development as there is no learning from the experiences.

Realizing that you have made a mistake and understanding that driving behavior must constantly improve is very important when you want to develop and become a safe driver.

3. Repression

In different situations in life, people try to repress or put aside thoughts that, in some way, are preventing them from achieving their goals. Contemplating and understanding reality correctly, instead of distorting or repressing it, can be decisive when driving a vehicle.
Do you take the risk of continuing to drive at the same speed even though it is dark and the road is shiny due to a thin layer of water or ice? Are you a person reckless enough to believe that the overtake will go well despite that the available space is scarce? Or do you understand the risks or do you not care?

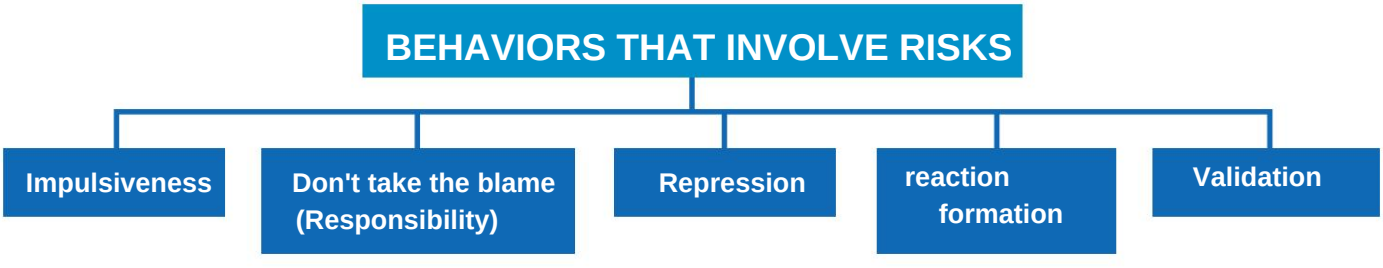
In your conscience you know that the risks increase. However, sometimes other things seem to be more important, like arriving at a certain time. Although the majority of drivers do not tend to repress risks, there are others who do so frequently, generating a decrease in risk awareness and increasing the tendency to take them, thus greatly increasing the probability of suffering an accident.

4. Reaction formation

Many traffic accidents are a consequence of the mechanism called reaction formation. This tends to manifest itself in people who are shy or afraid of looking ridiculous. They often harbor contradictory feelings about themselves: on the one hand they want to appear confident and possibly daring, but on the other hand, they feel insecure. How to resolve such a conflict? You can react in different ways, but it is not uncommon for one of the feelings to be excessively strengthened and the result is that an insecure person displays aggressive behavior. In certain circumstances, a shy person may want to be bold in order to stand out and receive praise or esteem from others; which could trigger risks in your driving.

5. Validation

Perhaps someone wants to show their companions how competent a driver they are. Thus, the action is frequently reinforced with words so that they realize how to drive a car. Another way to validate yourself can lead to a desire to defend your right at all costs.
Feeling that you are superior to others or thinking that you have more rights often leads to thinking that some actions of other people are challenges or provocations that increase the risk of suffering or causing an accident.



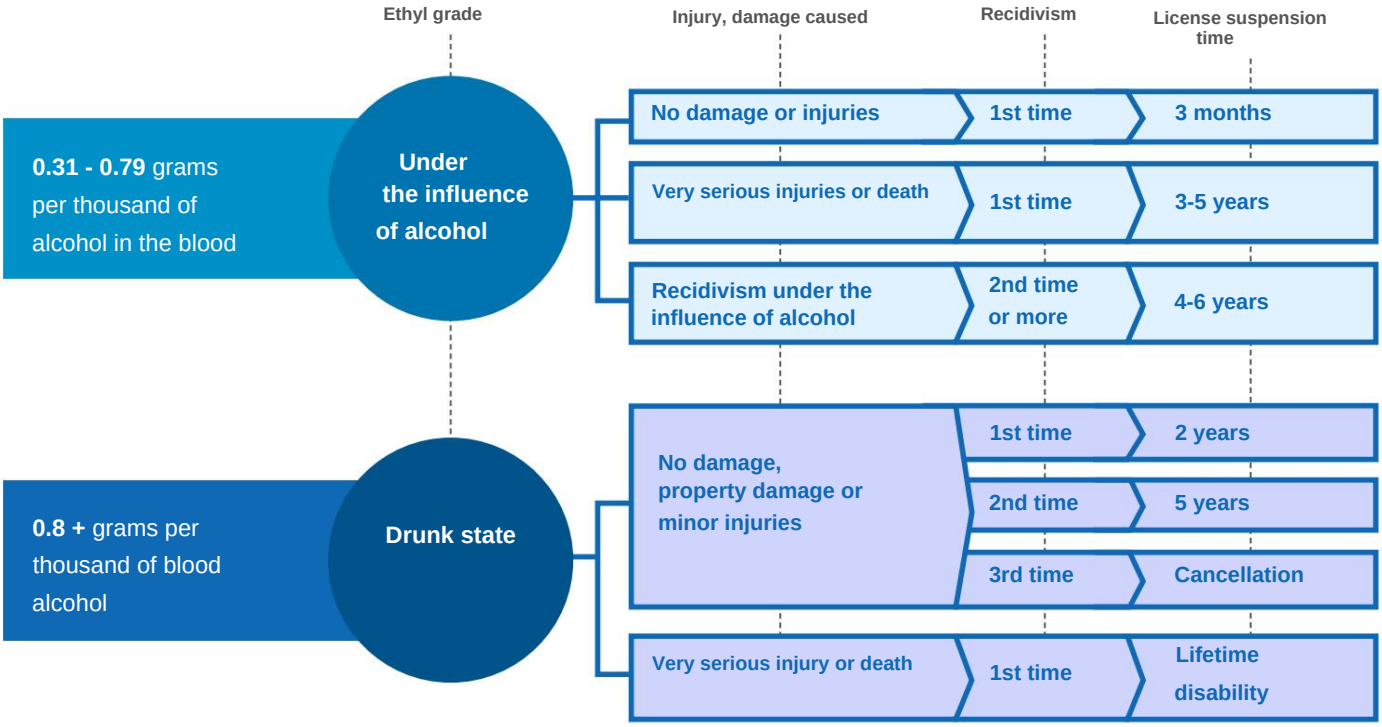
About alcohol while driving

In 2012, the modification to the Traffic Law, known as **the Zero Tolerance Law, was enacted,** which reduced the permitted levels of alcohol in the body to define what is understood as driving **under the influence of alcohol** and while **intoxicated,** increasing also the penalties associated with driving with alcohol.

alcohol and driving		
Under the influence of alcohol	0.31 - 0.79 grams per thousand of alcohol in the blood.	Sanction: fines and suspension of Driver's License.
Drunk state	0.8 or more grams per thousand of alcohol in the blood.	Sanction: fines, cancellation of license and imprisonment.

The penalties increase significantly in the event of a repeat offense, or if the driver, in addition to having been drinking, participates in an accident that results in material damage, deaths and/or injuries.

With a blood alcohol level between 0.3 and 0.5 g/l, the risk of suffering an accident is twice as high as if you had not drunk. On the other hand, if you reach a blood alcohol level between 0.5 and 0.8 g/l, the risk is five times greater than if you had not drunk.



A legal modification in 2014, known as **the Emilia Law,** punishes drivers with effective imprisonment of at least one year who, while intoxicated, cause very serious injuries or death to third parties. Additionally, the following are considered qualified crimes:

- The recidivism.
- Driving with a canceled or disqualified license.
- If the crime had been committed by a person driving vehicles for the transportation of passengers or cargo in the exercise of their duties.

On the other hand, if the driver involved in an accident unjustifiably refuses to undergo alcohol detection tests (respiratory test or other scientific test), he will be punished with license suspension, fines and prison sentences that could be up to effective depending on the consequences of the incident.

When alcohol is ingested, violations of traffic rules increase since abilities are impaired or diminished, and in addition, there is a lesser sense of responsibility and prudence.

Effects of alcohol on the body

The brain is affected by alcohol much more than other organs in the body. The first effects of alcohol manifest themselves in the psychological field, such as: **attention, perception and processing of information.** With small concentrations of this (0.1 gram per thousand of alcohol in the blood), **behavior and conduct are affected,** certain inhibitions decrease, self-confidence is strengthened and the tendency to overestimate one's own ability increases. This constitutes a great danger, since many people want to increase these sensations by drinking more.

Alcohol disturbs the mood, slows down communication in the nervous system and inhibits the ability to distinguish between different stimuli, which negatively influences the reaction time and coordination of a driver in the event of an unforeseen event.

The only safe alcohol level for driving is “0”. If you are going to drink, don't drive, look for another alternative to transport yourself.

Likewise, most people do not notice a reduction in their vision after having a few drinks, which may be correct in relation to direct vision. However, what is not perceived is that **peripheral vision does decrease,** which could cause the person to fail to discover obstacles in time, causing an accident.

At higher concentrations of alcohol, vision worsens, especially in the form of double vision. The muscles of each eye do not work correctly and, in addition, the muscles of the lens and pupil begin to fail, making it difficult to focus your gaze.

SUMMARIZING:

Peripheral vision, attention, reaction time and the ability to interpret and decide are influenced before the motor part; That is, the truly decisive functions are affected before you begin to realize the state you are in.

How the level of alcohol in the blood varies

To know the alcohol level of a person who has drunk, it is necessary to analyze a blood sample (alcoholemia) or perform a spirometric test with special equipment used by Carabineros de Chile.

The amount of alcohol in the blood varies according to various factors. The main ones are:

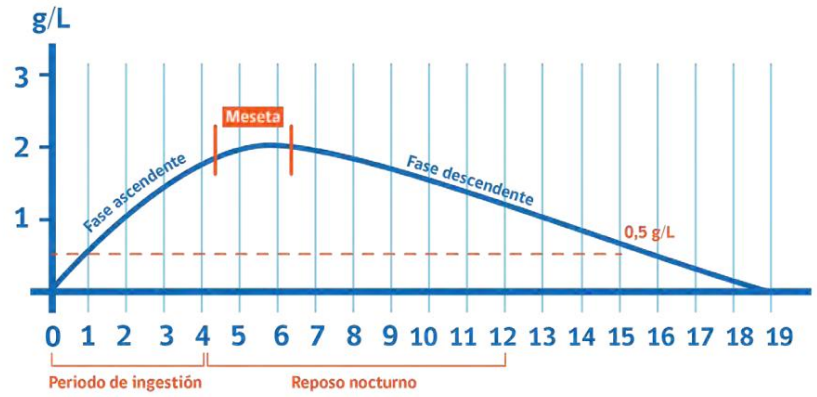
- **The amount of alcohol** a person consumes.

- **Body mass:** The lower the body weight, the higher the blood alcohol level. This means that, if two people drink exactly the same amount, the one who is lighter will have a higher blood alcohol level.

- **Sex:** There are physiological differences between men and women that mean that, if a man and a woman who have the same weight and drink the same amount of alcohol, it is more likely that the woman will obtain a higher blood alcohol level than the man. Therefore, if two people drink the same type and amount of alcohol, they do not necessarily reach the same blood alcohol level, nor experience the same effects.

- **The length of time the intake lasts.** The maximum point that alcohol reaches in the body, called the plateau on the blood alcohol level curve, will be greater if it is drunk in a short time. If you drink more slowly and/or allow time to pass between drinks, the body will eliminate some of the alcohol before receiving more. The following figure shows an example where the person drinks alcohol over a period of 4 hours and then sleeps for 8 hours.

alcohol level curve



Alcohol is detected in the blood 5 minutes after being ingested.

In the body, the alcohol level increases very quickly until it reaches its maximum level, which is reached, on average, one hour after drinking.

The body rids itself of alcohol by metabolizing it. It is estimated that in an average, healthy person weighing 70 kilos, the presence of alcohol decreases at a rate of between 0.10 to 0.15 g of alcohol per liter of blood per hour. But keep in mind that this is an average figure, which should not necessarily apply to your case. **Metabolization cannot be rushed.** This process is carried out at a constant pace, which is not accelerated by home remedies such as coffee, eating sweets, smoking a cigarette, a cold shower or physical exercises.

As evident in the graph, sleeping a few hours does not guarantee the total metabolization of alcohol, which causes unsafe driving.

- **The food ingested:** The concentration of alcohol in the blood varies depending on how much or little you eat before or while drinking. The food reduces the amount of alcohol that passes from the stomach to the blood.
You should know that mixing alcohol with carbonated drinks increases absorption by the stomach.

- **Age:** Those under 18 years of age and those over 65 years of age perceive the effects of alcohol more intensely. The effects of alcohol are more dangerous in beginner drivers, because they have not yet automated many of the movements necessary to drive, because they have not had the necessary practice.

As you can deduce, with so many factors it is very risky to predict a priori the result of a blood alcohol test.

Drugs and narcotics

The greatest risk of driving under the influence of drugs is given by the fact that all of them act on the brain and **can alter perception, cognition, attention, balance, coordination, reaction time and other faculties required to drive. drive safely.** The effects of each specific drug differ depending on its mechanism of action, the amount consumed, the history of the user, among other factors.

The consumption of these constitutes a risk to your health, they generate physical and psychological dependence, in addition, it entails real dangers when driving under their effects, so it is necessary to know these risks:

Dope

It is classified as a depressant, hallucinogen. It is not stimulating. Its effects on the body appear quickly and vary depending on the dose, the type of marijuana and the state of the individual, both physical and emotional.

The main consequences of its consumption are:

- The perception of the environment (such as colors) **is altered .**
- **The perception of time, space and speed is altered,** causing erroneous distance calculations.
- It is difficult to stay **focused,** so there is a high chance of being distracted while driving.
- **Increases reaction time** and, therefore, stopping distance in a risky situation.
- Produces strong **drowsiness.**

Cocaine

It is a stimulant whose main effects are:

- It produces more **competitive** and even aggressive behavior .

- The behavior can become **impulsive,** causing big mistakes behind the wheel.
- Abilities are overestimated, which **leads to assuming higher levels of risk,** committing more offenses and driving dangerously.
- The **perception of the environment is altered and the ability to concentrate decreases,** potentially suffering easily distracted.

Freebase

The effects of smoking Cocaine Base Paste (CBP) depend on the type of preparation, dose, frequency of consumption, impurities and adulterations it contains, among other variables. Its effect after smoking is rapid and intense, appearing within seconds and lasting a few minutes.

When consuming base paste, four stages can be distinguished:

1. Euphoria stage: characterized by a state of euphoria, decreased inhibitions, sensation of pleasure, ecstasy, intensification of mood, changes in attention levels, hyperexcitability, false sense of ability and competence, acceleration of the processes of thinking, decreased hunger, sleep and fatigue.

2. Dysphoria stage: feeling of anguish, depression, insecurity, sadness and apathy, among others. There is also an uncontrollable desire to continue smoking.

3. Stage in which the person begins **uninterrupted consumption,** when there is still a dose in the blood, to avoid dysphoria.

4. Stage of psychosis and hallucinations: loss of contact with reality, which can occur after days or even weeks of consumption and can last weeks or months. Sensory hallucinations are suffered, which can be visual, auditory, olfactory or cutaneous.

In all its stages the risks for driving are high and evident. Among the physical effects are: lack of coordination, dizziness, dilation of the pupils, tremors, nausea and/or vomiting.

Ecstasy

Ecstasy consumption can cause the following manifestations:

- Periods of greater **sensitivity to light,** therefore **greater tendency to glare.**
- Optical illusions, such as **flashes in the periphery of the visual field,** which could cause sudden and dangerous evasive maneuvers.
- Episodes of **blurred vision.**
- **Difficulty maintaining concentration.**
- Episodes of **depression or anxiety.**
- Once symptoms disappear, periods of **physical and mental exhaustion.**

Summary tables

physiological effects	cocaine	marijuana	ecstasy	base paste
Difficulty of attention.	●	●	●	●
Sensory alteration.	●	●	●	●
Motor alteration.	●	●	●	●
Impulsiveness.		●	●	●
Alteration speed of thought.	●	●	●	●
Heart conditions.	●	●	●	●

demonstrations in driving	cocaine	marijuana	ecstasy	base paste
Difficulty calculating distances.	●	●	●	●
Distractions while driving due to lack of concentration.	●	●	●	●
Increase in reaction time.	●			
Panic while driving.			●	
Alteration of the perception of the environment.	●	●	●	●
More competitive or aggressive behavior with other drivers.		●	●	●
Impulsivity to face unforeseen events.		●	●	●

If you have used any drug, do not drive. You must remember that all consumption implies a risk when driving. Waiting for the effects to go away or diminish is not a guarantee for safe driving again.

Diseases that can affect driving

Driving a vehicle safely requires all of our concentration and being able to react appropriately in risky situations, which is why it is necessary that our abilities are in good condition.

Every day there is greater social awareness of the risks involved in driving under the influence of alcohol or drugs, however, the **insecurity of driving under the influence of many medications and the risks that a certain disease can have at the time** are unknown. **of driving a vehicle.**

Not all diseases imply the same risks for driving, for example, **neurological disorders** are those with the highest risk of accidents occurring, followed by **medication addictions** (similar to drug addiction) and **diabetes.** Other pathologies that pose risks when driving are cardiovascular diseases, motor system problems, arthritis, hearing difficulties and some vision problems.

If you don't feel well, don't drive.

Keep in mind that when you begin the process of granting a Driver's License, you will undergo a medical examination where diseases and/or conditions that may affect driving will be evaluated. The evaluating doctor may require a report from a specialist doctor to have more information regarding your case and thus be able to approve or reject the medical examination.

If you have an underlying illness or develop it once your Driver's License has been granted, it is your responsibility to ask your treating doctor about the consequences and risks of driving. This will allow you to take the necessary precautions to avoid suffering an accident. In the same way, if you take prescription medications, you should inform yourself about their possible effects on driving.

If you have a chronic illness, you can reduce the risk of suffering an accident if you carry out the following actions:

- Know your illness well.
- Know the side effects of the medications you take.
- Recognize the symptoms of a crisis and know how to act.
- Avoid situations that could trigger a crisis.
- Avoid driving during a crisis or in the acute phase of the disease.
- Do not modify or abandon treatment without medical prescription.
- Do not consume alcohol while taking medications.
- Consult with a doctor about the risks of your pathology for safe driving.

Diseases that can affect driving

diseases with greater risk of affecting our abilities to drive a vehicle		
type of disease disease		**possible traffic risks***
Diseases Cardiac	**Arterial hypertension**	Dizziness; sudden loss of consciousness.
	Arrhythmia	Loss of attention.
	Angina pectoris	Loss of concentration.
	Heart attack	It is advisable to drive after 3 months after the event.
	Heart failure	Lack of concentration; drowsiness.
Diseases Respiratory	**Allergic rhinitis**	Loss of attention; loss of concentration; less visual coordination; eye irritation.
	Flu/Common Cold	Loss of attention; loss of concentration; drowsiness.
	Bronchial asthma	Loss of attention; difficulty of movements.
	Chronic bronchitis	Loss of attention.
	Obstructive sleep apnea	Loss of attention; drowsiness.
Diseases Neurological and Disorders Mental	**Dementia (Alzheimer's)**	Severe cognitive impairments; disorientation.
	Epilepsy	Loss of concentration; lack of coordination of movements; possibility of sudden attacks.
	Depression	Distractions (absorption); drowsiness; slowness of movements; erratic or unpredictable behavior.
	Anxiety disorders	Impulsiveness; loss of concentration; loss of attention; aggressiveness.

* Mainly in the symptomatic phase and without proper treatment.

In addition to the diseases listed in the previous table, there are other alterations in our body that influence safe driving. Next, we will review some of them.

Respiratory Allergies The

most common symptoms of a respiratory allergy are very similar to those of a common cold: constant need to blow your nose, watery eyes, blurred vision, sneezing, fatigue and headaches, among others, are so common. that it is not perceived how dangerous they can be when driving.

There is evidence that some of these symptoms could lead to errors in calculating distances and a reduced ability to maintain concentration in traffic. In addition, **antihistamines** commonly taken to relieve these symptoms can **cause greater drowsiness while driving.**

It is important to know that this disease can seriously affect driving safety. On a road trip traveling at 90 km/h, during a one-second sneeze, the vehicle travels about 25 meters without being able to pay attention to the road conditions.

USEFUL TIPS FOR ALLERGIC DRIVERS:

- Try not to open the windows while driving, drafts can increase attacks, as they contain pollen.
- Be careful with the use of air conditioning, direct inhalation of it could cause allergic crises.
- Keep the ventilation ducts and the interior of the vehicle clean, clean frequently, especially if you transport animals.
- Wear sunglasses, as they protect your eyes from allergens.
- Try not to take too long trips under the influence of any medication; if this is not possible, consult a doctor about the possibility of varying them or delaying the dose.
- Avoid driving at dawn and through humid areas, since in both cases large concentrations of pollen are produced.
- Do not self-medicate, always consult a doctor. Advice from friends and family may not recommend the most suitable medication.

Stress

Stress is a defense mechanism of the body against threatening situations or situations that require great effort.

In this sense, stress reactions can help overcome certain adverse situations; however, if the situation continues for a long time, **sleep disorders, anxiety, digestive problems and even heart attacks may occur.**

Stress means that mental exhaustion turns into anguish, causing incorrect reactions. Instead of concentrating forces on solving a difficult problem, stress worsens problem-oriented behavior. However, it is important to remember that not all stress necessarily has to be negative. On the contrary, a certain degree of stress can contribute to improved performance.

The negative influence of too high a level of stress lies in the fact that the driver may have **impulsive reactions and/or reduce their field of attention,** clinging to certain thoughts or actions. Then, the person is affected by some brain and muscle stiffness.

Another reaction of the driver, which is triggered by stress, is giving up in certain situations. The feeling of failure unconsciously becomes the dominant feeling and the person appears passive and, in the worst case, distant from themselves and contemplating the development of events as if they were a spectator.

There is also the possibility that a person under stress could have **panic reactions.** Feelings take over, carrying out a series of unnecessary or simply inappropriate actions. A driver dominated by panic has no possibility of resolving the situation on his own. All of these conditions are high risk when driving.

You should always avoid driving when you have symptoms of stress, and you should also try not to get into stressful situations while driving.

Depression

Depression is a very common illness in our society. Its main characteristic is suffering from an alteration in mood that results in episodes of apathy, sadness, depression and lack of energy, among others. If you suspect that you are suffering from depression, you should see a specialist as soon as possible so that he or she can determine the therapy to follow.

Depression influences the ability to drive a vehicle:

- Mood changes cause the driver to be immersed in his thoughts and not in the traffic conditions.
- There is not the same concern on the part of the driver to seek information about the environment, so it could take a while to detect risk situations, such as a person entering the road.
- Depression leads to a greater probability of suffering from states of drowsiness and fatigue, which is why it is not recommends driving at night, nor for long periods of time, nor in monotonous environments.
- A person with depression can easily become upset in the face of some circumstances and react impulsively or disproportionately to other road users.
- Depression produces insecurity, which makes it easier to make mistakes or behave unexpectedly while driving.
- The use of some medications to treat depression can affect your ability to drive.
- The presence of suicidal ideas can induce the person to cause a traffic accident.

Medications that can affect driving

There are certain medications that impair the ability to drive safely, so if you are taking any, it is important that you consult a professional about the effects it could cause you.

Let's know the effects of some medications widely used in the population:

Antihistamines

Commonly and widely used for the treatment of allergies, there are various types, but some of them have side effects that are especially dangerous for driving.

It has been proven that the risk of **driving under the influence of some of these medications is equivalent to the risk of driving with a blood alcohol level of 0.5 g/l to 0.8 g/l,** that is, driving under the influence of alcohol. influence of alcohol.

Today there are antihistamines that do not cause drowsiness, therefore, they are safer for driving.

Never take antihistamines mixed with alcohol or other medications, as they could produce other unwanted effects.

Psychotropic drugs

These are medications used to treat mental illnesses, such as depression, anxiety or sleep disorders. Many of them can impair safe driving capabilities.

There are different types of psychotropic drugs:

- **Anxiolytics, sedatives and hypnotics:** they are used to relieve anxiety symptoms, reduce states of high activation and induce sleep, such as sleeping pills and sedatives that reduce the state of wakefulness.
- **Antidepressants:** They are mainly used in the treatment of depression.
- **Neuroleptics or antipsychotics:** they are used in the treatment of psychotic disorders, such as schizophrenia. They can cause drowsiness and hypotension.
- **Psychostimulants:** they have an activating effect on the central nervous system and psychic functions. For example, there are some types of amphetamines that generate a short-lived and strong feeling of self-confidence.

Some of these medications generate such strong effects on the body that in some countries it is prohibited to drive while taking them.

Some medications decrease attention and increase reaction time when driving.

When you are going to consume medications, especially those mentioned above, you should consult your doctor about the possible risks to driving, so that you can take the necessary care.

Table on the effects caused by certain medications

if you are undergoing treatment for:	you medicate with:	you could feel:					other effects
		dream	euphoria	dizziness	hypertension		
Pains	Analgesics	●	●	●			
	Narcotic pain relievers	●	●	●			
Sleep and nerves	Anxiolytics and hypnotics	●					
	Antidepressants	●		●	●	●	Coordination disorders
	Antipsychotics	●			●	●	Fatigue
	Psychostimulants		●				Dyskinesia
diabetes	Antidiabetics						Nervousness/tremor
Colds, coughs and bronchi	Antitussives	●					Hypoglycemia
	Antihistamines	●				●	
	Anti-infectives						Anxiety/insomnia
The circulation	Anticoagulants and antiplatelets						
Circulation and tension	Vasodilators and antihypertensives			●	●		
Others	Anticholinergics					●	Confusion
	Anticonvulsants	●		●		●	Ataxia
	Antiparkinsonian				●	●	Confusion/reduced reflexes

Tiredness, sleep and fatigue

International data reveal that between 15 and 30% of total traffic accidents occur because the sleep factor is directly or indirectly associated, and many of them have serious consequences.

Fatigue is an important cause of traffic accidents, mainly those that occur on roads.

Normally, it is thought that sleep accidents are caused by drivers who fell asleep at the wheel, which is not always correct. The risks of having an accident due to drowsiness appear much earlier.

Another popular belief is to believe that sleep only appears at night, when sleep can appear during the day for many reasons.

Effects of fatigue and sleep on driving

The driver has a great responsibility when he feels that fatigue is appearing. The effects of fatigue or sleepiness on driving are shown as follows:

- **Increases reaction time.** This explains accidents such as rear-end collisions, when the vehicle in front brakes and cannot stop in time.
- **The number of distractions while driving increases,** since drowsiness makes it difficult to concentrate in traffic and distractions appear more easily. This is especially dangerous when driving in a monotonous environment with little traffic.
- **The ability to make decisions behind the wheel and judgment are altered.** When sleepy, people take longer to make a decision, increasing the probability of participating in a risky situation. Sleep also contributes to many more errors being made when driving, especially when it is necessary to respond quickly to a complicated situation such as accessing a highway or road. Fatigue and sleep increase errors in speed estimation.
- **Psychomotor coordination worsens and the driver's mobility is altered.** The muscles relax causing slower and less precise movements. There is a tendency to make movements automatically, which can lead to maneuvers carried out without thinking and not necessarily appropriate to the traffic situation. For example, crossing a signalized intersection without making sure you have a green light.
- **Microsleeps may occur,** which are periods of a few seconds in which the driver, without realizing it, falls slightly asleep and is completely unaware of what is happening around him. Normally the driver is not aware of having fallen asleep, not even when he wakes up; microsleeps go absolutely unnoticed. Numerous accidents occur as a result of these.
- **The perception of the environment is altered.** When sleepy, vision becomes blurred, it is more difficult to focus and eye fatigue may appear. It is easier to be dazzled by another vehicle with high beams when you are sleepy.

- **Changes in behavior occur.** When you are sleepy, a driver may become restless or may become more hostile toward other road users. It is possible to accept a higher level of risk, such as increasing speed, especially when you are closer to the destination and eager to get there.

- **Fatigue can occur for different reasons.** When it comes to driving a vehicle, the most common cause is perhaps a combination of physical effort and monotony. Driving for a long time requires some muscle work, driving becomes hard on the eyes and different noises contribute to fatigue. Having the person sit all the time worsens blood circulation, since there is less oxygenation of the blood.

Different phases of fatigue

The first sign of fatigue manifests itself with a lack of interest in stimuli and a certain feeling of laziness in the face of intellectual activity. In this initial phase the first yawns are witnessed.

It is not unusual for the driver to have a dry mouth and begin to feel cold. This last sensation is treacherous, since you will want to increase the interior temperature of the vehicle, which will cause greater drowsiness. The yawns are more frequent and are getting deeper. The eyelids begin to close. Driving speed becomes irregular and the person may become disoriented.

In the final phases, the neck muscles relax, causing involuntary head movements. The desire to fall asleep is too strong and sleep cannot be controlled even with the maximum effort of will.

As you may notice, you should stop to rest well before experiencing the symptoms described.
Sometimes it is necessary to pause the trip to stretch your legs, get some fresh air or sleep for a few hours. **Never let your plight be so great that you risk your life and the lives of other people!**

If on any occasion you begin to feel tired while driving while looking for a place to stop, make sure that fresh air enters your vehicle.

Factors that favor the appearance of sleep

Among the most common situations that can promote the appearance of drowsiness are:

- **The time of day.** Early morning, especially between 3 and 5 a.m., and the early afternoon hours, between 2 and 4 p.m., are especially favorable for the onset of drowsiness, even if you have had enough sleep.

- **Sleep fewer hours than usual.** Each person knows how many hours they need to wake up rested, to be clear and active. You may feel very sleepy after getting little sleep, especially if you get less than half the hours you need. If you sleep one or two hours less, in a few days you will experience great drowsiness.

- **Change the usual hours of sleep.** The more hours a person is awake in a row, the more difficult it will be to resist falling asleep. This appears very easily at the time when you usually go to sleep and, later, sleep will be even greater. Avoid driving in these conditions, as the risk of accident will be even greater.

People who work changing shifts, such as healthcare or emergency services personnel, who frequently vary the periods and number of hours spent sleeping, often experience periods of severe sleepiness while awake.

- **The quality of sleep.** If sleep is not restful, the next morning the person will be tired and sleepy, so they will not be in optimal condition to drive.

It may also happen that you are a light sleeper and, by not reaching the deeper phases, you will not get enough rest. Thus, even if you do not wake up during the night, you may suffer from severe drowsiness the next day.

- **The monotonous traffic.** Driving at night on a straight road without traffic, for many kilometers, promotes drowsiness. On the other hand, on roads where constant changes in the environment are experienced, such as urban roads with a lot of traffic, it is easier for the person to stay active and clear.
- **The consumption of sedative substances.** Alcohol or some medications can promote the appearance of sleep. The same can happen when eating a large meal. Avoid them if you are going to drive.
- **The consumption of stimulant substances.** Coffee, tea, yerba mate and energy drinks can be useful in the immediate moment and in some situations, however when their effect ceases, a **rebound effect can occur,** that is, sleep will appear suddenly.
- **Sleep disorders,** such as insomnia, can cause severe daytime sleepiness, which It has a very negative influence on Road Safety.

The few hours or poor quality of sleep, the consumption of medications with a sedative effect or the monotony behind the wheel **do not affect all people in the same way.**

Fatigue at the wheel

Fatigue is another of the most frequent causes of accidents, especially among professional drivers.

Fatigue and drowsiness are two phenomena that tend to appear together very frequently: a person who drives tired generates drowsiness and, if he or she drives drowsy, it promotes the appearance and intensity of fatigue.

The most risky effects of fatigue for driving

- The **ability to maintain attention on the environment** is altered, making it difficult to concentrate on traffic, which encourages distractions.

- **Alteration of sensations and perceptions,** such as:
  - Blurred vision that prevents you from perceiving the environment adequately.
  - Decreased hearing sensitivity, which affects the proper perception of sounds in the environment.

- Possibility of experiencing sudden and disproportionate reactions to sudden sounds, such as braking suddenly when hearing a horn.

- Sensations of heaviness, neck and back pain, migraines, cramps and other uncomfortable or unpleasant sensations.

- **Movement alterations:**

  - They will be slower and more imprecise.

  - The number of maneuvers performed also decreases, for example, the trajectory will be corrected less times.

  - Movements that indicate fatigue appear: frequent changes in posture, stretching, yawning, constant adjustments in the seat, hand movements (such as scratching) or so-called playful behaviors (such as singing or whistling).

- **Behavioral alterations:**

  - It is possible to start driving automatically and more passively. For example, paying less attention to the environment.

  - It is common to take greater risks while driving.

  - It is possible that the person is more nervous or irritable, which increases hostile or aggressive behavior towards others.

- **Alterations in the driver's decision making:**

  - The quantity and quality of information collected from the environment decreases, which makes it easier to misinterpret situations or behaviors of other people.

  - The driver's reasoning will be seriously affected and the decisions they make will probably not be the most appropriate or the safest.

  - Reaction time will increase.

Situations that can favor the appearance of fatigue while driving

The appearance of fatigue while driving is a matter of time, therefore, if you drive for a long time, sooner or later, you will feel its symptoms.

Therefore, it is important to know what **circumstances favor its appearance and increase its intensity:**

- **Circumstances on the road and its surroundings:**

  - Driving on a road with a lot of traffic, as it requires increased concentration.

  - Driving on a road with the pavement in poor condition, since driving is more uncomfortable due to vehicle vibrations, among other situations.

  - Driving on an unfamiliar road, as it requires you to pay attention throughout the journey.

  - Driving at night or in weather conditions that are not conducive to driving (for example,

rain, fog or snow), since driving becomes more difficult, requiring greater attention.

- **Circumstances in the vehicle:**

  - Poor ventilation or high temperatures inside the vehicle.

  - Driving in a vehicle in poor condition makes driving uncomfortable, such as suspension or steering problems.

  - A non-ergonomic design of the seat or other interior elements of the vehicle also makes driving uncomfortable and difficult.

- **Circumstances of the driver:**

  - Driving for a long time without resting or resting inadequately is the main cause of fatigue while driving.

  - Maintain excessive speed for a long time.

  - Previous alterations in the driver's condition, such as driving while drowsy, feeling sick or under the influence of alcohol or drugs.

  - Change normal driving habits, for example, driving at night when you are only used to driving during the day.

  - Being an inexperienced driver, since, not having automated many of the necessary processes, more concentration is needed.

  - Maintain inappropriate seating positions that make driving uncomfortable and difficult.

TIPS IN CASE OF FATIGUE OR TIREDNESS WHILE DRIVING:

- If you feel tired or sleepy while driving, it is best to stop to rest in a suitable place and sleep; 20 or 30 minutes of sleep are enough in most cases.

  If you continue driving in these conditions, the risk of suffering an accident will increase.

- On long trips, rest at least 20 to 30 minutes every 2 hours or 200 kilometers of driving, maximum.

- Pay attention to the appearance of the symptoms of sleep or fatigue that have been discussed above. If you have doubts it will always be safer to stop and rest a little.

Avoiding circumstances that favor the appearance of fatigue, or increasing the number of breaks, can guarantee your safety and that of other people.

Vulnerable users

Vulnerable users

Although all road users are prone to suffering some type of traffic accident, there are certain people who are more vulnerable. These correspond to girls and boys, pedestrians in general (particularly older people), cyclists, motorcyclists, among others.

Pedestrians, cyclists and motorcyclists, along with their passengers, account for almost half of the traffic fatalities in the world.3

Pedestrians

In Chile, road accidents represent approximately 15% of accidents, however, the people hit by cars who died in these accidents correspond to approximately 28% of the total number of deaths.

The high accident rate of these road users is related to their behavior in the **zone of uncertainty,** that is, in the space that surrounds them when they travel on the road. These people tend to move more unpredictably than the rest. For this reason, a driver finds it more difficult to anticipate the behavior of vulnerable users. In addition, pedestrians tend to commit many infractions, among which are suddenly descending onto the road and crossing improperly, that is, not using pedestrian crossings, walkways or not respecting traffic lights.

In addition to this behavior, we must consider the use of telephones and headphones, among other technologies.
Many people listen to music through headphones in such a way that they are acoustically isolated from everything around them. Others walk around looking at their cell phone and will surely pay more attention to it than to the traffic. It is likely that they can descend onto the road without further care. Be very careful.

AS A DRIVER YOU MUST:

- Always be alert and anticipate positions.
ble infractions by pedestrians.
- If you are driving on the left lane and you see that on the right lane there is a vehicle stopped before a zebra crossing, you should slow down and prepare to stop your vehicle, since there could be pedestrians who have begun to cross.
- When passing near a bus stopped at a stop, you should slow down as a pedestrian could appear unexpectedly on the road in front of or behind the bus, or running to get on it.
- Consider that pedestrians may suddenly leave behind or in front of parked vehicles. These probably haven't seen you.

(3) Source: Global status report on road safety, WHO.

- Show consideration for pedestrians. Drive carefully and at low speed when nearby, especially on busy commercial streets, residential areas, near educational establishments and mobile sales carts or stores, or when passing through small towns.

- In the presence of drunk people, reduce your speed, it is better to give them preference than to cause an accident.

- Keep in mind that people may suffer from some impairment, which may be visible or invisible. Thus, a pedestrian may have vision or hearing injuries or difficulties moving around. Those who suffer from an impediment do not have the obligation to show it.

Therefore, **always reduce your speed when you suspect that a pedestrian may be in trouble of any kind.** Drive carefully and show consideration for the elderly or people with disabilities. In general, the roads are not adapted for this type of users, give them time to cross, and do not assume that people can hear your vehicle: they may have hearing difficulties.

Elderly people

As a driver, you must be especially respectful of this group of pedestrians, considering that their mobility times may be reduced, in addition to other difficulties they must face.

In order to be considerate of older people, it is important that you know the main problems they encounter on public roads:

- **Excess noise in the environment,** which can make it difficult to hear.
- Difficulty appreciating the **speed of vehicles.**
- **Less mobility and slower reactions.**
- Sometimes there is **difficulty in clearly distinguishing the colors of the traffic light.**
- **Lack of pedestrian crossings** in certain areas.
- **Streets may be too wide** to cross and may be **poorly lit. An older person may need 4 seconds more than a young person to cross a 16 meter wide street.**
- They may have **problems with orientation** when they do not know the streets well.
- An elderly person, when crossing the street, could turn back before reaching the sidewalk, or stop at the road; or you might not be paying attention to traffic and descend unexpectedly onto the road.

On the other hand, you should know that, in general, older people who drive a vehicle have great experience behind the wheel and are cautious when driving. However, there are **psychophysiological alterations** that occur with advancing age, which can affect driving ability.

The deterioration of the psychomotor abilities necessary for driving can mean, for example, loss of strength when braking, worse handling of the steering wheel, a decrease in the ability to maintain attention, slower processing of information about the road or an increase in reaction time. Because of this, many older adults are at greater risk of accidents in complex traffic situations that require a quick response. However, in situations where there is enough time to react, they have the same problems as other younger people. Therefore, we must give them enough time and not pressure them to act.

The girls and boys

Many accidents occur when girls and boys suddenly run across the street. This age group is not usually aware of traffic conditions and risks, so it is necessary that as a driver, you are aware of some of their behaviors and prevent dangerous situations. **It is your responsibility that an accident does not occur.**

You should know that girls and boys:

They have a small stature: therefore, they can easily not be seen when they play behind a parked vehicle.

They do not have fully developed eyesight: Eyesight does not fully develop until 15 years of age. Their field of vision is limited and they see only one thing at a time.

They act impulsively: they do what they need, without thinking about the consequences.

They always play: everything is a game. They do not consider that traffic can be dangerous.

They have difficulty judging distance and speed.

They begin to act safely in traffic between 9 and 12 years of age.

Be a cautious person and be prepared to stop your vehicle:

In residential areas where girls and boys play on roads and sidewalks.

When there are girls and boys who get out of a vehicle on the wrong side.

In the vicinity of educational establishments, especially at start and end times of activities.

When you pass a stopped school transport vehicle: there may be girls and boys getting on or off.

When you are near a car or vehicle that sells candy or ice cream. The girls and Children are more interested in these than in traffic.

Animal-drawn vehicles

Pay attention when you encounter someone riding a horse or cart on a road or highway, and be prepared to slow down. If the person is going in the same direction as yours and, at the same time, they come

In rural areas, where it is more common to find people on horses, you should pay more attention to their presence, especially on curves to the right.

many vehicles against you, do not get too close and wait until the vehicles have passed to overtake them. Maintain a safe lateral distance.

Do not use light or acoustic signals or accelerate the engine in the vicinity of animals as they can easily be frightened and cause a risky situation.

motorcyclists

Motorcycles are a means of transportation used with increasing frequency. This may be due to the advantages offered by its mobility and small size.

Despite its advantages, the lack of bodywork means that accidents suffered by this type of vehicle are easily fatal. The probability of death is much higher in this type of vehicle than in a larger, closed vehicle.

Collisions that occur at intersections involving motorcyclists are frequent, for this reason, you must be especially careful when approaching intersections, since due to the high speeds at which these vehicles are usually driven, it is difficult to perceive them in time.

As a car driver, be especially careful with motorcycles, because they are small and difficult to see. Also consider the presence of **motorized cargo tricycles,** which usually travel at a reduced speed and, in general, do not have a body to protect the driver.

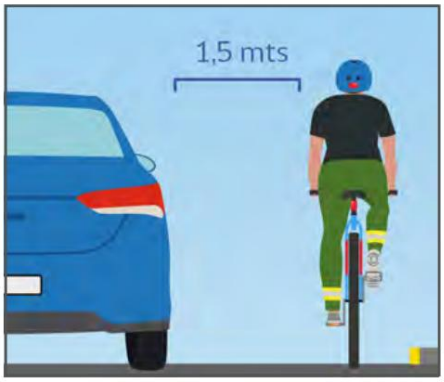
Cycling people

A cyclist is understood as **anyone who uses a cycle to transport themselves,** be it a bicycle, a scooter, skates, among others. All of these are vehicles and must travel under traffic regulations.

You must keep in mind that micromobility is becoming more common every day, so it is essential to learn to live with the different cycles. Keep in mind that **your vehicle has the infrastructure designed to absorb the impact of a traffic accident, however, cyclists do not have this bodywork, their body being the one that receives the greatest impact.** The main safety element for cyclists is the helmet. This reduces the probability of suffering head injuries up to three times, which are the most important in the event of a collision.

In the presence of cyclists:

- When passing your vehicle near a cyclist, the regulations indicate that you must leave a **lateral space of at least 1.5 meters,** as they could deviate or stagger. This may occur more likely when there is strong wind or on uphill climbs due to the greater effort developed when pedaling.

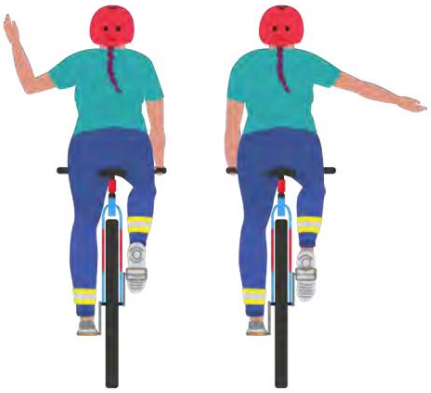


- When approaching a cyclist on the sidewalk, pay attention, as he or she may not see you and may enter the road without warning.

- When you ride behind a cyclist, you must pay attention at intersections, as they could wanting to turn forgetting to signal.
- Do not overtake a cyclist before or at an intersection, and especially if you are turning right. Wait that it has passed the intersection. **Remember that when you turn, you lose your preference.**
- Keep in mind that cycles do not have rearview mirrors.
- Your vehicle has **blind spots** where you may not notice the presence of a cyclist, be especially careful with these areas.
- Remember that a cyclist can also use a crosswalk to cross an intersection.
- If it is night or visibility has decreased, be especially careful. They do not always circulate with lights that allow you to see them in a timely manner.

Signage of maneuvers that cyclists must use to communicate

Slowing down or stopping
Left arm extended downward.



Right turn
Left arm at a right angle upward or right arm extended horizontally.

left turn
Left arm extended horizontally.

Remember that as a driver of a motor vehicle, you cannot drive, stop or park in bicycle lanes. If you have to get out of your vehicle near one, try to look to see if a cyclist is coming before opening the door.

If you are a cyclist and want to obtain more information regarding safe driving on cycles, we invite you to review the Guide for cyclists in Chile, from CONASET, which can be found at https://mejoresconductores.conaset.cl

Girls and boys in the car

When you carry girls and/or boys in your vehicle you will face some demands. It can be exhausting listening to them play or fight when you're driving. Therefore, you must encourage them to travel calmly, **and do not forget to use child locks on the doors,** which prevent them from being opened from inside the vehicle.

Keep in mind that you are an example to follow, just as you use the seat belt appropriately, girls and boys **must always be in their Child Restraint System,** the safety device designed for their transfer inside a vehicle, at all times. type of trip. It is your obligation, as a driver, to use this when transporting girls and boys in a car.

Traffic accidents are one of the main causes of premature death in girls and boys in Latin American and Caribbean countries. In Chile, during the last decade, 497 girls, boys and adolescents under 12 years of age died, 45% died as passengers in a vehicle in traffic accidents and 36,221 were injured.

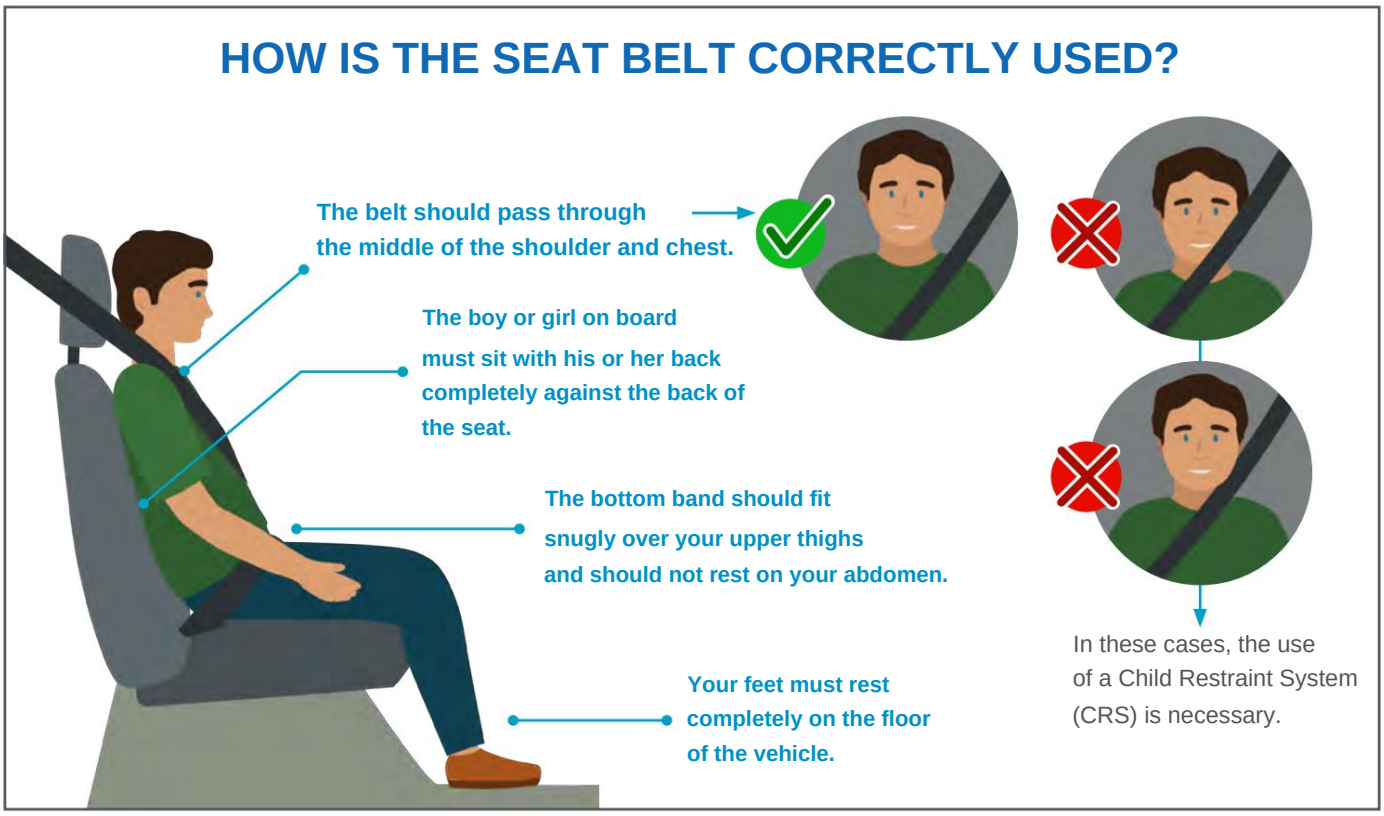
To reduce the risks of damage and injuries, it is necessary to use Child Restraint Systems (CRS), appropriate for their weight, size and level of development. Remember that with its use,

Since 2006, **the transfer of girls and boys in SRI is mandatory.** Furthermore, starting in March 2016, the requirements were increased.

The transfer of minors under 12 years of age in the front seats of vehicles was prohibited, and they must be transported in the back seat (except in single-cab vehicles), using a CRS appropriate to their weight, size and level of development. , or the seat belt if it already fits well (see diagram below).

Likewise, since March 2017, the Traffic Law obliges drivers to transport girls and boys up to and including 8 years old (that is, up to one day before turning 9 years old), or with a height less than or equal to 135 centimeters. and 33 kilograms of weight, in Child Restraint Systems. The above is required of private vehicles, excepting public transportation, school transportation and vehicles with similar characteristics from this obligation.

Failure to comply with these measures is punished as a very serious offense and the fine is 1.5 to 3 UTM and the suspension of the Driver's License from 5 to 45 days.



Correct use of a Child Restraint System (CRS)

It should be taken into account that it is not enough to just use a Child Restraint System, but it must be **used correctly,** since a poorly installed device does not provide the necessary protection for children to travel safely, generating a false sense of security. . For this reason, **the seat must be securely attached to the vehicle seat,** carefully following the instructions indicated in the CRS user manual, and the child must be attached to the seat through the harness or seat belt.

These devices must be used from the girls and boys' **first trip ;** That is, from the time they are born (includes the first trip from the health center where they are born) until they can use the seat belt directly.

Incorrect use of the seat belt causes significant injuries to the organs located in the abdominal area such as the liver, intestines, bladder and kidneys, which can seriously compromise life.

Considerations for choosing a Child Restraint System (CRS)

Different aspects must be taken into account when choosing a Child Restraint System, the most relevant ones to consider are the following:

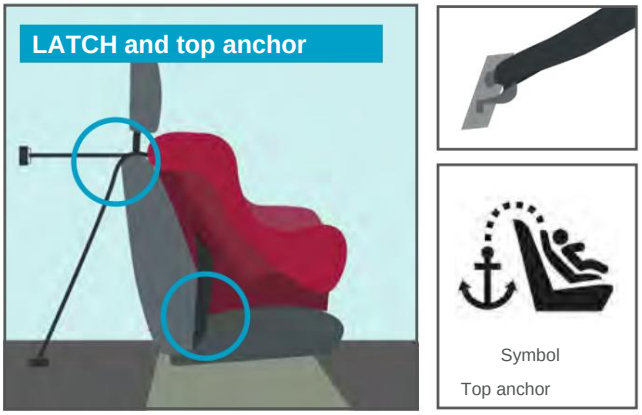
- **Weight, height and level of development of the girl and/or boy:** You must select the Child Restraint System according to the stage of development of the girl and/or boy, choosing the model appropriate to their weight and height. It is recommended that the CRS be installed rear-facing, so that children travel

rear-facing, for as long as possible, until reaching the weight and height limits indicated by the manufacturer (minimum up to two years).

- **Vehicle characteristics:** You must make sure that the CRS can be installed in your vehicle, taking into account the size of the vehicle and the seat to be used, in addition to the type of anchorage (ISOFIX, LATCH or seat belt) that the vehicle has. Remember to review your vehicle's manual to check the characteristics it has.

- **Characteristics of the group of passengers who will make the trip:** You must ensure that all the people who travel in your vehicle do so with a restraint system suitable for them, for this reason the installation of a CRS should not interfere with the correct adjustment of the one corresponding to the and the other passengers.

- **That it can be installed correctly and easily:** You should make sure that you use a CRS that can be installed correctly and easily in your vehicle. These can be anchored to the vehicle through the ISOFIX and LATCH systems or with the seat belt. If properly installed, any of the three is safe on its own, so there is no need to use two systems at the same time, unless directed by the CRS manufacturer.



Symbol
Top anchor

Symbol
Isofix anchor

- **That it complies with recognized standards:** You must ensure that the CRS you use is certified, according to current regulations, with international standards and accredited in Chile.

This is the label that certified child seats must have:

The label must be attached to the chair, it is yellow with black letters and measures 9.5 cm high and 7.5 cm wide.

Composition of the accreditation code

3CV: Vehicle Control and Certification Center of the Ministry of Transport and Telecommunications.

ASN: SRI Accreditation.
XX: SRI manufacturer's brand.
XXX: SRI model name.
2015: Year of accreditation.
000: Correlative accreditation number.

CHAPTER

6

Traffic rules

Traffic rules

Achieving good road coexistence requires compliance with traffic rules; to do so, it is necessary to recognize and understand the language associated with traffic. These can be expressed in four ways:

- The signs of the Carabineros of Chile.
- The traffic lights.
- Traffic signage: vertical signs and road markings.
- The rules of the traffic.

entities in charge of ensuring compliance
of traffic rules

- **police from Chile**
- **Tax Inspectors**
- **Municipal Inspectors**

The Carabineros signs

When there is traffic congestion, a traffic accident has occurred, or a traffic light does not work, among other reasons, it is very likely that Carabineros will regulate or direct traffic.

On some occasions, you may face more than one instruction, for example, the indication of a police officer and a traffic light. In such case, **the instructions given by Carabineros de Chile prevail over the others.**

Carabineros seen from the front or back: indicate arrest.

Carabinero with his arm raised: indicates warning. Those who are detained must prepare to move forward once the police officer turns to his side and those who have a free way must stop.

Carabiner seen from the side: authorizes to advance.

The traffic lights

At intersections with high traffic flows, traffic lights are installed to regulate vehicle circulation and increase vehicle safety. Although these seek to contribute to a good Road Coexistence, the lack of knowledge of their meaning or the non-compliance with their signs turns these intersections into risk areas for the generation of traffic accidents.

You must recognize and know the different types of traffic lights that exist on the roads. Below is a summary of these.

Not respecting the red light indication of a traffic light is a very serious violation of the Traffic Law.

meaning of traffic light	
	**Green light:** Indicates passage. Vehicles facing it can continue in the same direction or turn, unless there is a traffic sign in place that prohibits any turn. Even if you have a green light, **do not advance if after the intersection you do not have at least 10 meters clear on your traffic lane.** Pedestrians **who** also face the green light **have priority to cross.** Remember that in a pedestrian crossing there may also be **cyclists** who use this crossing to cross. If you are going to turn, **you must give way to them.**
	**Red light:** Indicates stop. Vehicles facing a red light must **stop before the stop line** or forward stop line and must not proceed until the green light turns on. **Flashing red light:** Indicates yield. Vehicles facing a flashing red light may continue once they verify that there are no vehicles approaching from the other road that would make crossing risky.
	**Yellow light:** Indicates prevention. Vehicles must **stop before entering the intersection,** as the yellow light warns that the red light will appear next. If the yellow light surprises you so close to the intersection that you can no longer stop safely, continue with caution. If you are surprised inside the intersection, proceed with caution. **Flashing yellow light:** Warns of danger. Vehicles facing a flashing yellow light should approach the intersection at a **reduced speed and proceed with due caution.**

Red light and green arrow: Vehicles facing these lights may carefully enter the intersection, but **only to continue in the direction indicated by the arrow,** and must respect the pedestrians who are crossing, as well as the other vehicles that are circulating legally.

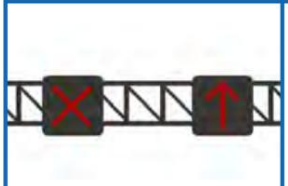
If the traffic light, in the place of the round green light, contains an arrow of the same color, you can proceed only in the direction indicated by it or these, and continue with due caution.

Traffic lights with heads for cyclists: When there is a cycle lane, signalized intersections may have special heads to enable safe crossing for cyclists. **If you are turning, even when facing a green light, remember that they have the right of way.**

Pedestrian traffic lights: They are usually installed in specific places on some roads, with the purpose of **allowing pedestrians to cross them safely.** Some of these traffic lights are activated by people.

Traffic lights with railway crossings: These places are provided with light signals, which are activated automatically when a train approaches, and which may be accompanied by acoustic signals and/or barriers.

The light signals at railway crossings are white and red. The **red light** (it can also be two alternating flashing red lights) **warns of the proximity of a train,** while the white indicates that no train is approaching, which does not mean that it can be passed without danger. **Always check that the crossing is clear, the security system could fail.**

	**Traffic lights for public transportation:** On roads where there are exclusive lanes for buses, special traffic lights can be used to regulate traffic at intersections. These traffic lights **affect only vehicles that circulate on the exclusive lane.** The colors of the lights they contain and their meaning do not differ from those of a traditional traffic light, except that the green color can be replaced by white.
	A runway may be temporarily closed to traffic. To do this, variable message signs located on the road can be used. **The X, usually red, indicates that the track is closed. The arrow shows that the road is open to traffic.**

Road signs

Vertical signs

These signs are used to indicate to drivers and pedestrians the correct and safe way to use the roads. To facilitate their reading they have different symbols, colors and shapes. These are classified into groups according to what they report. There are signs that indicate a prohibition or a mandate, others warn of existing dangers, and others provide important information. Next, we will learn about the groups of signals and you can learn more examples of each one in Annex 1 on page 150.

- **Regulatory signs:** their purpose is to notify road users about priority ities, prohibitions, restrictions, obligations and authorizations.

Generally, these signs have a circular or rectangular shape, having the symbols and/or numbers inscribed within a circle or red border. Exceptions to the above are the STOP, Yield, End Restriction, Mandatory Passage, Right Turning Allowed on Red Light, Bicycles Only signs, among others.

It is important to note that the END RESTRICTION sign ends the restriction shown inside the circle. In the example shown, it corresponds to “Do not overtake”.

- **Danger warning signs:** their purpose is to warn of the existence of permanent dangers or risks. These are rhombus-shaped, their background color is yellow and their symbol is black. Except for the sign called the Cross of Saint Andrew.

In some cases, there are signs, particularly those related to the most vulnerable users, which may be a different yellow color than the rest, with a slightly green hue.

Since all these signs warn of danger, you must avoid overtaking once you have passed the sign and take appropriate precautions, either by reducing your speed or carrying out the necessary maneuvers for your safety and that of other people.

- **Informative signs:** their purpose is to orient and guide those who drive, so that they can reach their destinations in the safest, simplest and most direct way possible.

They are classified into two groups: those that guide you to your destination and those that contain other information of interest, such as services, tourist attractions and others. They are square or rectangular in shape and, in general, blue in the case of Highways and Highways and green in other types of roads. However, those that report on tourist attractions can also be brown.

- **Temporary signs:** These may correspond to the preventive or informative type and respond to the presence of risks or dangers of a non-permanent nature derived from the execution of work on the road.
They are orange, with the exception of the first sign that warns about the work, which is yellow.

Remember to moderate your speed in areas with work and if necessary, reduce it. The eventual presence of people working, materials such as sand, stones or gravel, even machinery, can be a risk.

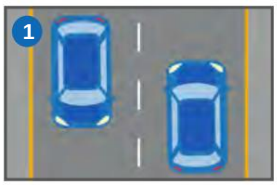
Horizontal signs or demarcations

Demarcations (road markings) clarify and strengthen regulations. This is how they can serve as a warning, to divide the road or also to indicate prohibitions. These consist of longitudinal or transversal lines, arrows, symbols, legends and others. Let's get to know the types of road markings:

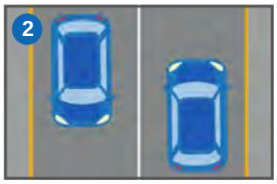
Demarcations of lanes, center and road edges

The white longitudinal line that marks the road axis and separates vehicular flows that circulate in opposite directions can be continuous or discontinuous (segmented).

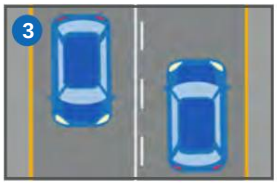
The **dashed longitudinal lines** ( ), white in color, may be accompanied by reflective studs of the same color. You can cross these lines and change lanes by previously warning other road users of your intention to do so and as long as this does not pose risks to other people.



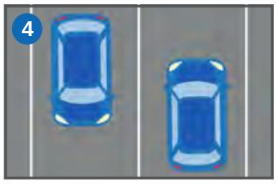
The **continuous longitudinal lines** ( ), may be complemented by red reflective studs, and indicate that there are no safety conditions for it to be crossed. Such as, for example, insufficient visibility before a curve or before a change in gradient.



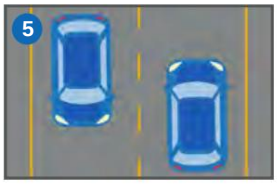
Sometimes, longitudinal lines can be presented in **a mixed form** (that is, both segmented and continuous. In these cases, it can only be crossed by vehicles traveling on the side on which it is segmented.



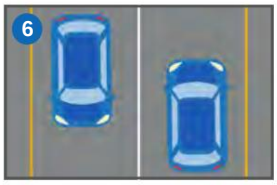
Another important case is that of the longitudinal line that indicates the **edge of the road** (4) called **berm.** You should not drive through this lateral safety strip.
ral. Only in rural areas, in case of emergency, will you be able to cross this line to remain on the berm.



The roadway edge line may also be segmented when there is a widening of the roadway upon reaching an intersection, when a parking area is provided, or when there is a deceleration or acceleration lane. They are distinguished by having a different pattern from the other broken lines that delimit traffic lanes, and in the case of highways and expressways, by also being generally wider (see image on page 118).



Additionally, you should know that on mountain roads where snow is frequent, both the central axis and road edge markings can be yellow ( ).



On the other hand, in urban areas a continuous yellow strip is usually demarcated at the edge of the road or on the pavement itself, with the purpose of signaling the prohibition of parking along it ( ).

- **Demarcations at intersections:** In a regulated intersection with a traffic light, the white line transversal to the road that determines the stop line before which vehicles must stop ( ) becomes very important. Furthermore, there are

The white lines that mark the crossing of pedestrians and cyclists are important.

Under certain conditions (signalized intersection, width of the road) there may be an area between the stop line and the pedestrian crossing that corresponds to the special waiting area for people who drive bicycles and/or motorcycles ( ).

Stop lines can also be associated with STOP or Yield signs, as well as pedestrian crossings and bicycle lane crossings.

- **Zebra crossing demarcation:** Pedestrian crossings in non-signalized places, that is, zebra crossings or crossings, are demarcated with white stripes parallel to the axis of the road, preceded by a transversal stop line ( ) and often also , by zig-zag lines at the edge of the road.

At zebra crossings and pedestrian crossings at unmarked traffic light crossings, there is always a stop line. Although it is not painted, it is imaginatively located no less than one meter before them.

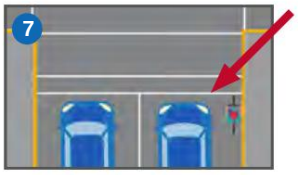
Do not forget! At a zebra crossing, pedestrians have priority

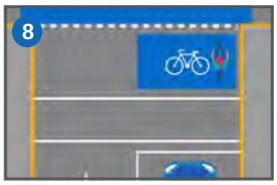
- **Do not block intersection demarcation:** Some intersections may be demarcated. These brands, marked with diagonal yellow lines that form squares (which are used on congested roads, they warn drivers that they must take all necessary measures in order not to be stopped at the intersection. People who face this demarcation can only cross when at the exit of the intersection there is enough space to avoid being stopped there.

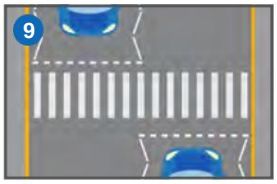
- **Demarcation of symbols and legends:** These marks indicate to drivers the permitted maneuvers and actions they must perform, as well as warn of dangers. In this group are the arrows that indicate the direction(s) to follow or the duty to leave a track, the Yield, STOP signs and the legend SLOW ( ), among others.

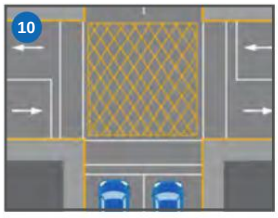
- **Other demarcations:** Among these are the longitudinal lines that delimit bus stop places, cyclist lanes and priority lanes for emergency vehicles (better channeling of flows. You should not circulate, much less park, on these marked), as well as the widened areas that allow for areas ( ).

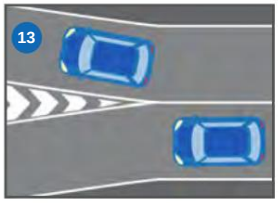
If you are on a trail with these markings, leave the trail as soon as you can do so safely.







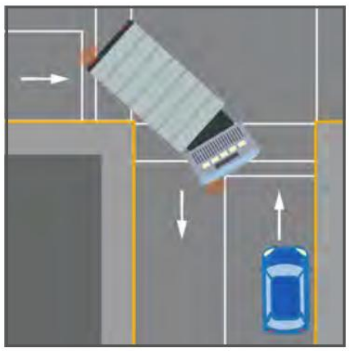




Remember:

The space required to turn for a large vehicle may exceed the width of a runway.

Stop if you are in a situation like the one shown in the image, or if you are behind the truck, and wait for it to finish its maneuver.



The rules of the road

In addition to the instructions expressed through Carabineros, traffic lights or signage, there are also other rules to regulate the circulation of vehicles on streets and roads, and make it safer. These rules are described in the chapters and subchapters that follow.

The obligation to give way

Encounters at intersections, in general, involve certain risks. Many traffic accidents occur in these places. The reasons are varied: sometimes, the driver has not paid attention to the traffic; Other times, you have miscalculated the distance and speed, and other times, you have misjudged your own ability to stop in time. To ensure safe traffic at intersections, there are rules about priority when crossing.

When **facing the STOP sign** you must stop your vehicle and allow those traveling on the other road to pass. You will only be able to resume driving when there is no possibility of an accident.

When **facing a YIELD sign,** you must reduce your speed until you stop if necessary and give way to vehicles traveling on the other road and whose proximity constitutes a risk of accident.

- When you approach an intersection without a traffic light, or one where there is no Police regulating traffic, and it does not have STOP or Yield signs, you must always give preference to vehicles approaching the intersection on the other road **from your right.**

- **At the time of turning you have no preference:** when you intend to turn, you will have no preference and must respect the preferential right of way that other circulating vehicles and pedestrians have in such circumstances at regulatory crossings or crossings. .

- When entering a rotating traffic area - roundabout or mini-roundabout - **vehicles that circulate , you must give way to the through it.**

- In rural areas, when approaching a main road from a secondary road, **you must yield to vehicles traveling on the main road.**
- When approaching an unsignalized intersection and you are required to yield, reduce your speed with enough time to stop when necessary. **You have to clearly show your intention.**
- Also keep in mind that giving way means that **whoever has the right of way to use the road should not be forced to modify their path or speed** as a result of the action of someone who does not have priority.

Other yield obligations:

- When approaching a zebra crossing where someone is about to cross, you must stop and give way to them.
- When entering traffic from a private road, from a building or a parking lot, you must Yield the right of way to vehicles in transit, including cyclists, as well as pedestrians.
- When moving after a stop, you must yield to passing vehicles and traffic. and pedestrians.
- When you leave the traffic to enter a private road, a parking lot or a building, you will lack any preferential right of way with respect to pedestrians and vehicles in transit.
- **When the track you are driving on is suddenly blocked, you will also lack priority over other vehicles, to be able to change lanes.**

Emergency vehicles: When an emergency vehicle approaches (police vehicles, bomb cars, ambulances and those belonging to the Investigative Police) that use their light and/or acoustic signals, **you must give them the right of way,** as either by moving to one side on the road and stopping if necessary until they have passed if they are both traveling in the same direction, or by giving way to them if it is a crossing. If in these circumstances you are on a lane marked for emergency vehicles, leave it as soon as you can do so safely.

Signs and signals

Sometimes, either due to ignorance or because we misinterpret other people's signals, misunderstandings can arise in traffic.

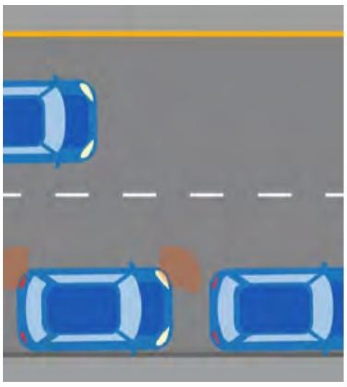
As a driver, **you have the obligation to let the person driving the vehicle following you know what you are going to do, so that they know what to expect.** However, the fact that you signal in time does not relieve you of the obligation to exercise caution. Pay close attention to other people's signals and try to interpret their intentions.

If a vehicle signals with its left turn signal, it means that it is going to turn left. If you misinterpret the situation and believe that it is telling you that you can pass it, an accident may occur.

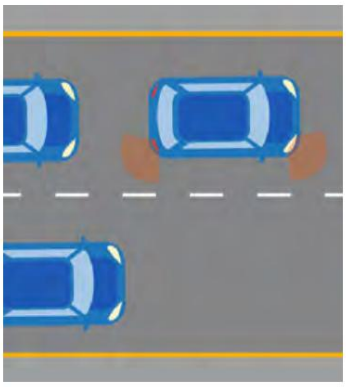
The signal must be given with sufficient time before starting the intended maneuver, and must be visible and unambiguous. The fact that you signal does not free you from the possibility of an accident. Focus your attention on what you are doing and be considerate of other road users.

When changing lanes, do not start signaling until you are sure that you will be able to perform the maneuver. Always remember the sequence **mirror – signaling – maneuver.**

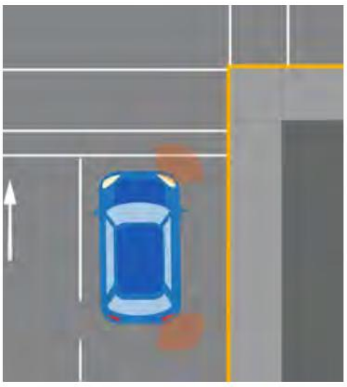
Some cases:



Signal when you are going to move from the edge of the road.



Signal with sufficient advance notice when you are going to change lanes and when you are going to overtake or overtake.



Signal when you are going to turn.

Alternatively, turning and lane-changing maneuvers can be warned by the driver using **signals made with his or her arm,** as follows:

Arm extended horizontally indicates left turn.

Arm at a right angle upward indicates turning to the right.

Arm extended towards below indicates decrease speed or stopping.

Also remember that this is the way that cyclists warn of their maneuvers. In addition, they can indicate their turn to the right with their right arm extended horizontally and complement the warning with the use of an electric signal attached to the body.

YOU MUST KNOW:

- **The brake lights turn on automatically when you press the brake pedal.** Sometimes it may be necessary to warn those behind you by lightly pressing the brake pedal so that the lights come on.

- **Flashing emergency lights warn other people that your vehicle is stopped.** Use them when your vehicle has suffered a breakdown or there is a risk situation.

- **The white taillights come on when reversing.**

- Only to prevent an accident and whenever its use is strictly necessary, you can use your vehicle's **horn . Never use it in a tunnel, or at the entrance or exit of it.**
Also do not use them near cyclists.
Not when overtaking or overtaking animals.

Vehicle location

Keeping a sufficient distance from those in front of you and positioning your vehicle well before turning are also a form of communication between road users.

The tracks are designed with the space necessary to drive a four-wheeled vehicle, although there may be cases where these are not demarcated, they will always have the necessary space to circulate.

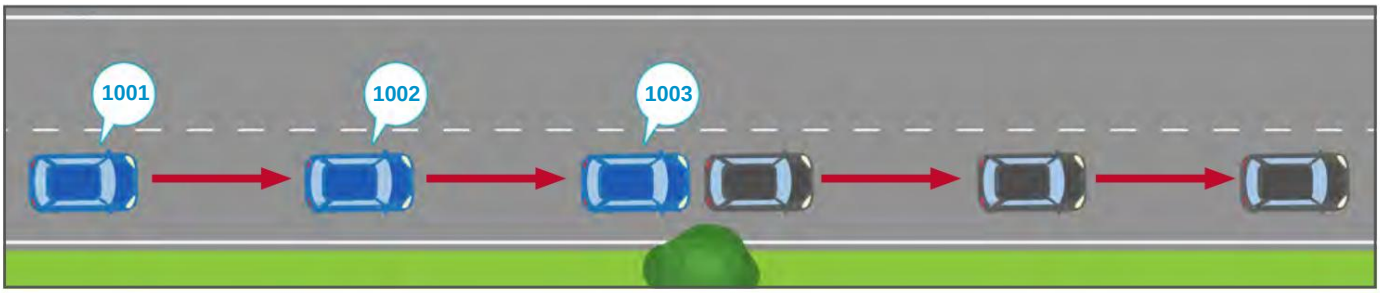
Sometimes, the road axis may not be demarcated. In this case, **the road is divided into two equal parts** and you must always drive on the right.

Distance to vehicles in front

Knowing the correct distance from the vehicle in front can be difficult. A rule **always applicable on roads** says that you must maintain a distance measured in meters equivalent to what the speedometer indicates in kilometers. For example, if you are traveling at 80 km/h you must keep a distance of about 80 meters from the vehicle in front. In urban traffic, this distance can be reduced by half.

Maintaining a very short distance increases the risk of accidents, being one of the factors that most frequently contributes to them. Forward visibility is reduced, making overtaking difficult. Driving becomes irregular and uneconomical.

Another rule **applicable on roads** that allows you to know if you are traveling at an adequate distance from the vehicle in front is the so-called **"Three Second Rule":** To use it, fix your gaze on a point, for example, a tree. As soon as the vehicle in front passes the tree, it begins to count... one thousand one, one thousand two, one thousand three. If you pass the tree before you have counted one thousand three, it means that the distance you are keeping is very short. Reduce pressure on the accelerator.



Add extra time if weather or road conditions are adverse.

When you discover that a vehicle in front of you has begun to brake, approximately one second will pass before you begin to brake.

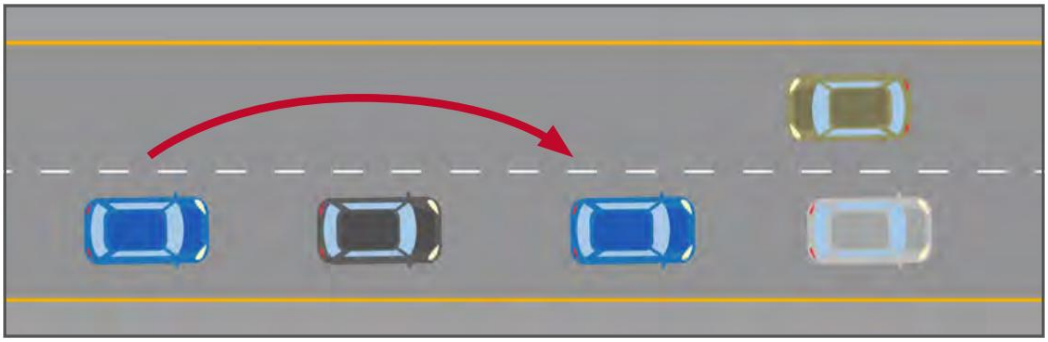
In this time you will travel around 15 meters if you go at 50 km/h, 20 meters if you go at 70 km/h and 25 meters if you go at 90 km/h.

In general, serial crashes are due to the drivers keeping a distance that is too short with respect to the vehicles in front, which does not allow them to brake in time.

TO REDUCE THE RISK OF COLLISION:

- Vary the distance you maintain from the vehicle in front depending on the speed and condition of the pavement.
- Maintain an adequate distance from vehicles ahead. On highways, use the "Three Second Rule."
- In the event of traffic congestion, when distances decrease and the risks of crashes and collisions increase, pay greater attention and prepare to act in time.
- As a driver, you must remain alert to traffic and be prepared to brake: shift your foot from the accelerator pedal to the brake pedal and keep it ready to use.

On this matter, the law states that when two or more vehicles circulate in the same direction on the right, each driver must maintain, with respect to the vehicle in front of him, a sufficient distance so that any other vehicle can overtake him, safely entering said vehicle. space. The same law exempts from such provision only vehicles that travel in a caravan in a funeral procession.

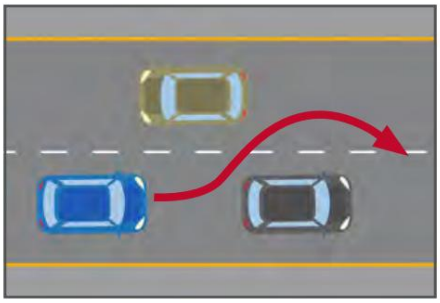


Increase your distance if in the city you are driving behind a vehicle with a foreign license plate. The driver of the vehicle could be unaware of the location and brake suddenly to read the name of a street, ignore a sign or turn unexpectedly.

Lateral distance

Crossing vehicles and overtaking always involve risks. The risk is greater when visibility is reduced, such as on curves, changes in gradient, in the dark and when there is fog. Therefore, place your vehicle safely on the track, in case of possible overtaking and crossing with others.

When traveling on a one-lane road, stay as close to the right edge of the road as possible. Other drivers may make mistakes when making their maneuvers, as shown in the image. Both vehicles coming from the opposite direction and those coming from behind you can overtake at an inappropriate time.



Remember that to overtake you must do so on the left.

When there are parked vehicles

Leave enough space, **equivalent to the width of a door,** when passing near parked vehicles.
Someone could try to step onto the road suddenly, or a vehicle could leave the parking lot without warning.

Reduce your speed and pay attention to pedestrians who may appear between vehicles intending to cross.

Correct use of traffic lanes

Stay completely within one lane, so as not to hinder traffic on the other. Always drive on the right half of the road.

Sometimes, **you can drive on the left lane when:**

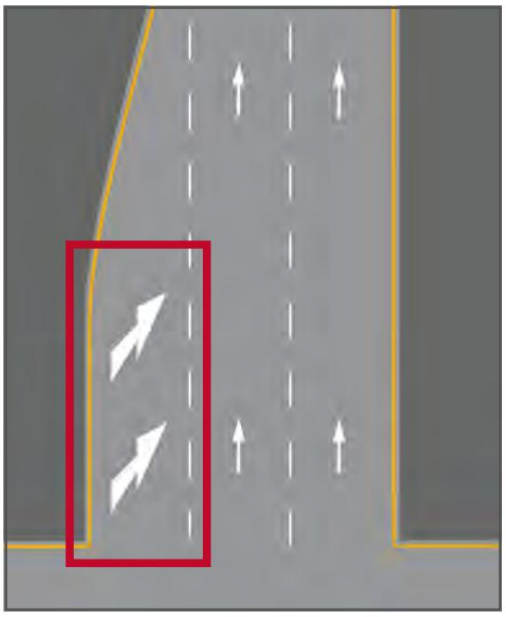
- You need to cross the center line of the road to overtake another vehicle.
- Traffic on the right half of the road is prevented by work or other accidents that alter normal circulation.
- In urban traffic, the road has three or more traffic lanes marked in the same direction.
- In urban traffic, the road is marked for one-way traffic.
- You are on highways and roads. In any case, we recommend that you drive on the right lane and leave the left lane or lanes free for those who wish to overtake you.

Don't forget to respect the signs that designate lanes intended to channel traffic in a certain direction or direction, as well as those that reserve lanes for high- or low-speed traffic.

Traffic lane changes

As noted above, in certain cases you will be able to locate your vehicle on any of the traffic lanes. You may change to the adjacent lane as long as you can do so safely and without unnecessarily impeding other people, but you will not be able to move onto that lane to immediately enter a third lane.

Informational traffic signs placed high above the road make it easy to select the correct lane.



The arrows on the road indicate that you must leave the acceleration lane and join the rest of the traffic.

WHEN YOU CHANGE TRACKS YOU MUST:

- Check through the rearview mirror, the side mirrors and looking over your shoulder that there are no vehicles coming that would prevent you from changing.
- Warn your intention to change lanes using your arm or by activating the vehicle's lighting devices well in advance.
- Help those trying to change tracks.
- Avoid unnecessary lane changes (every displacement always implies a risk).
- Look forward and backward at a long distance.

Turns

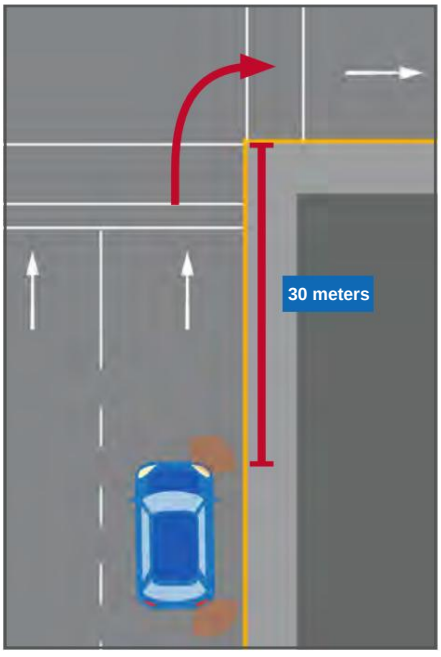
Steps to follow to make a right turn:

1. Position yourself as close as possible to the right edge of the road, unless there is a cycle lane, in which case you must position yourself closest to the segregating element.

2. Make sure they are not going through cycles.

3. Turn as close as possible to the right-hand shoulder, the edge of the road, or the side of the bike lane separator.

4. After you have turned, choose the most convenient location to continue.



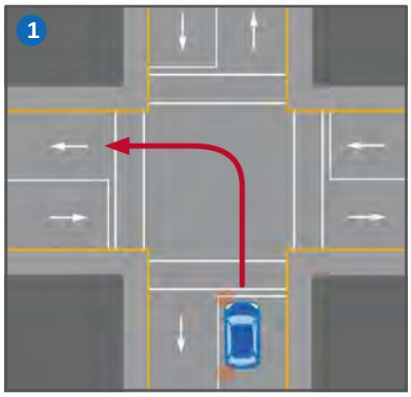
Don't forget that:

- You must signal your intention to turn with sufficient advance notice: **at least 30 meters before.**
- Positioning yourself correctly will facilitate your maneuver and the passage of other users.
- By positioning yourself correctly you will show other drivers the path you are going to follow.
- Check your rearview mirrors to see that no cyclists are coming.
- You must give way to pedestrians who are crossing a crosswalk.
- You should also plan your correct location soon after you have turned.
- You must turn off the signal once the turn is complete.

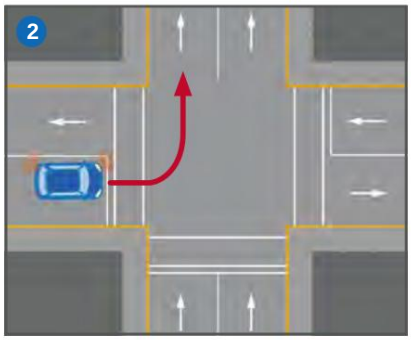
Remember that your preparations for making a turn have to start in advance, so that other people are not surprised by the maneuver you have planned to make. The distance with which you must signal your maneuver will depend on the speed on each occasion. On a road where the maximum speed allowed is 100 km/h it may be about 300 to 400 meters.

left turn

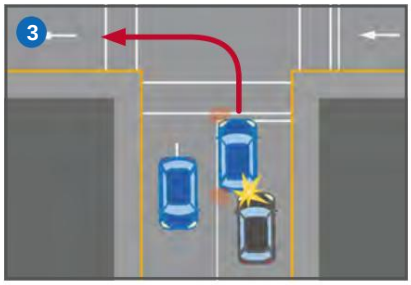
Well before turning left, use your mirrors to make sure you know the position and movement of traffic behind you.
Signal your intention to turn at least 30 meters in advance and pay attention to pedestrians.



To turn from a dual carriageway, safely approach the right side of the axis or center line of the road on which you are traveling (2). As it is very difficult to judge the speed of vehicles driving in the opposite direction, if you do not feel confident about turning, adjust your speed or stop, and continue after letting them pass. If you have to stop, do so a few meters before the intersection with your front wheels facing forward.



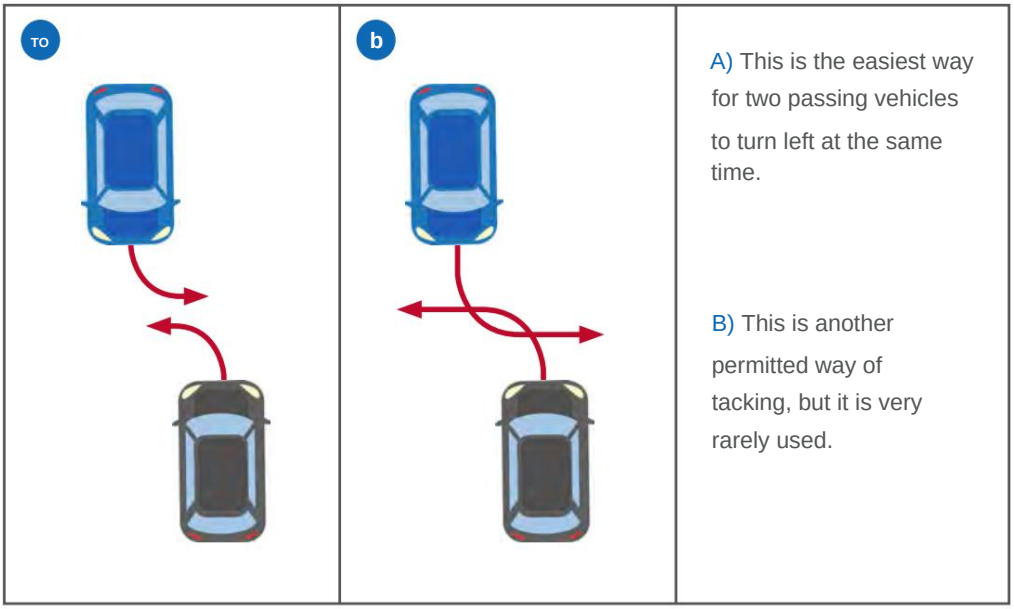
If you were rear-ended (3) and your wheels were twisted to the left, you would be thrown onto the oncoming lane, which could lead to a head-on collision. Do not stand obliquely. Enter the intersection when you have enough space and time and then enter the other road taking the right side of its axis or center line if the road is two-way, or the lane on your left if the road is one-way. traffic.



Before making a left turn, it is especially important to focus your attention on traffic coming from both the oncoming direction and from behind. If you encounter objects or vehicles that obscure your vision, you should stop and then move forward slowly until you have full vision.

You must give way to those traveling in the opposite direction and not unnecessarily impede vehicles approaching from behind you.

Pay special attention when you are going to make a left turn and find that another vehicle coming in the opposite direction will do the same. Try to keep eye contact with the other driver and look behind your vehicle to see if those following you are going to continue forward.



A) This is the easiest way for two passing vehicles to turn left at the same time.

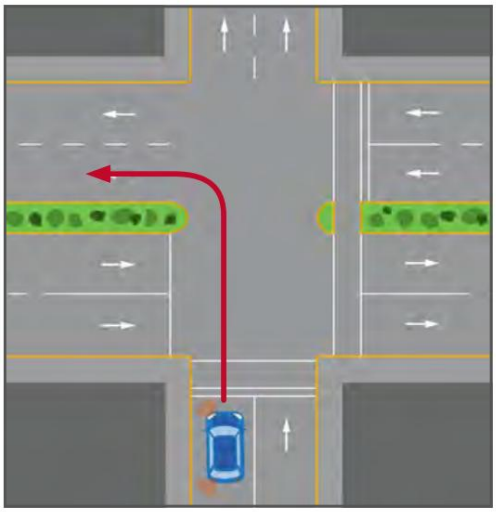
B) This is another permitted way of tacking, but it is very rarely used.

To make traffic safer, left turns are usually prohibited, suggesting routes as shown in the image.

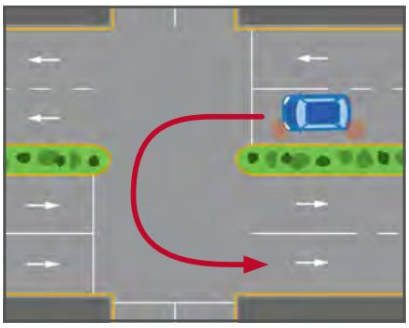
A large number of accidents that occur when a vehicle is about to turn left correspond to rear-end collisions.

There are times when you must give up making a left turn. Refraining from turning left is not only convenient when there is a change in grade, but also when the road to which you want to turn is near a curve with poor visibility. Always count on the possibility that there is a hidden person, who could appear unexpectedly.

As the image shows, to turn from a one-way road onto a two-way road, enter the intersection when you can do so safely, and then, once past it, take the right side of the axis or center line of the two-way road. transit.



“U” turn



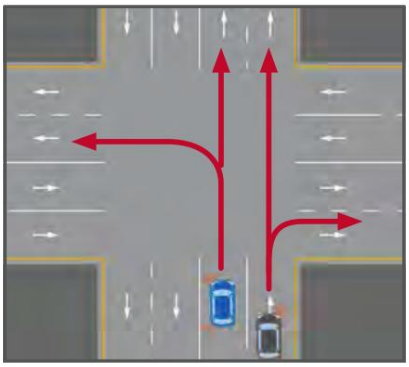
A “U” turn is the maneuver by which the vehicle turns 180º, taking the opposite direction from which it came. These turns can be made on dual carriageway roads when there is no continuous center line of the carriageway, as well as on avenues provided with central shoulder lanes, as long as this is not expressly prohibited.

Act with caution before initiating a “U” turn. Use your mirrors to know the position of those coming behind you and signal. Make sure you have enough visibility and space.

YOU SHOULD NOT TURN “U”:

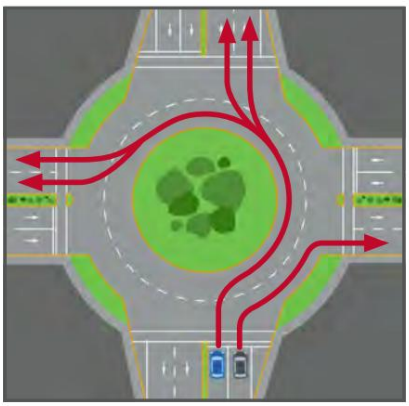
- At intersections of streets and roads.
- At pedestrian crossings.
- Less than 200 m from a curve, crest or gradient, railway crossing, bridge, tunnel and viaduct.
- Where signage or demarcation prohibits it.

Multiple tracks in the same direction



When there are several tracks in the same direction, choose the correct track in time: choose the right one to turn right and the left one to turn left. Choose the track that suits you best when you are going to continue straight.

Roundabouts



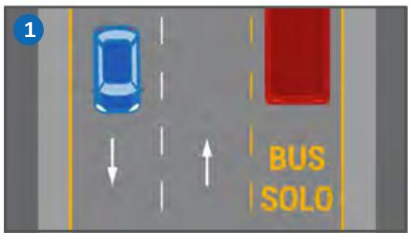
When approaching a roundabout, decide as soon as possible which exit you will need, in order to enter the correct lane. Reduce your speed.
When you reach the roundabout, you are obliged to give way to the vehicles circulating there.

When you go through the roundabout, signal to the right as soon as you have passed the exit immediately before the one you will use.

Special tracks

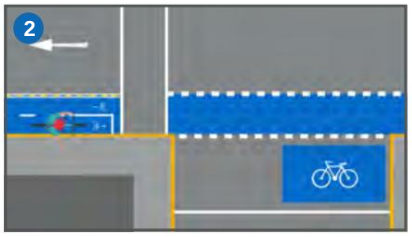
1 Lanes reserved for public transport

In some cities and sectors of them, collective transportation services are usually privileged, assigning them exclusive circulation lanes.
Do not enter them unless it is permitted in certain places in which said segregation is with a broken line and is strictly necessary to be able to turn.



2 Special tracks for cyclists

In some places there may be cycle paths. These cannot be used by other vehicles, even though in some cases they are only delimited with markings at the edge of the road.



3 Tracks or roads with reversible traffic

These tracks or roads are used throughout the day with different traffic directions. For example, during the morning the direction of traffic can be from north to south, while at other times vehicles can circulate through them only from south to north.

4 Exclusive use routes

In order to favor public transportation of passengers, exclusive lanes are also usually designated for them during the hours of greatest vehicular flow.

Do not travel on these roads at times when it is not allowed.

5 Emergency clues

These tracks are usually enabled on roads with very steep slopes in the case of emergencies resulting from the failure of a vehicle's brake system.

Speed

It's easy to get used to high speeds and be blinded by them.
After driving for a while on a highway, the speed feels pleasant, and you don't realize how fast you are going until the 50 km/h limit signs appear when taking an exit. So it's easy to doubt the speedometer or speed meter. When braking up to 50 km/h, you will have the false sensation that the vehicle is almost stopped. That is why it is important that you remember that the speedometer is very rarely wrong and that, on the other hand, it is very easy to be fooled and blinded by the speed.

Remember that as speed increases, the driver's field of vision reduces.

When you go to stop is when you notice the speed. At 50 km/h it takes about 25 meters to stop if the pavement is good and dry. If you increase the speed to 100 km/h, you will require about 80 meters. This stopping distance is what you should keep in mind when you increase speed.

speed limits

If everyone respected the speed limits many lives would be saved. This speed must always be reasonable and prudent, that is, never higher than the speed at which you can maintain control of your vehicle and stop it within a distance that is within sight of you, in the event of any obstacle or unforeseen event.

The maximum speeds allowed vary depending on whether it is an urban or rural area, as well as depending on the type of vehicle. **In urban areas, the maximum speed allowed is 50 km/h.**

In non-urban areas, and when the road has only one lane in each direction, the maximum speed allowed for light vehicles is 100 km/h. When there are 2 or more lanes in the same direction, this limit increases to 120 km/h. In any case, buses, trucks and school transport vehicles must not travel at more than 90 km/h nor intercity buses at more than 100 km/h.

However, the authority may modify the limits indicated above on certain roads by installing the corresponding signs.

Situations where speed must be reduced due to the greater risk of accidents:

- In densely populated areas.
- When visibility is reduced due to bad weather or poor lighting.
- When approaching or entering a curve.
- When approaching the top of a hill.
- When driving on a narrow or winding road.
- When there is a risk of being dazzled by changes in lighting or when crossing another vehicle in a narrow road.
- When the pavement is slippery.

- When you approach a vehicle for collective transportation or transportation of schoolchildren that has stopped to pick up or drop off passengers. In the latter case, you should stop if necessary.
- When you approach girls and/or boys who are on or near the road and, especially, when you approach squares or children's games.
- You must reduce your speed to no more than 30 km/h when driving outside a school during the times of entry and exit of classes.
- When you approach animals that are walking on the road or path.
- When passing a place where road work is being carried out.
- When passing through a place where an accident has occurred.
- You must reduce your speed to that indicated on the signs while in a Traffic Calming Zone.

DRIVING ON THE DEFENSIVE MEANS THAT:

- You drive carefully.
- You show yourself with distrust.
- You maintain a good safety distance.
- You plan ahead.
- You brake in time.
- You look first and drive later.

Some other rules about speed

Adequate speed means that, in risky situations, you are going slowly enough to be able to give priority to other people, even if the rules do not require you to do so.

When you are required to give way, reduce your speed ahead of time, stopping if necessary, so that other people clearly understand that you are going to give them the right of way.

And don't forget that you must adapt your speed to the pavement conditions, the weather, the visibility, the condition of the vehicle, its load and the intensity of the traffic. Reduce speed due to changing visibility due to light and shadow on a tree-lined street on a sunny day. This condition makes it difficult to perceive other road users as well as calculate distances.

Hidden dangers

You have to be able to stop at any obstacle imaginable. As a driver, always expect that there may be someone or something behind a parked car, behind a bush, or around the next bend. This is a capacity that must be trained.

Our limitations

You should never drive at a speed that prevents you from controlling your vehicle. Many drivers believe they are much more skilled than they really are and, therefore, they drive

speed greater than that which their capacity allows them. Many road accidents occur alone, that is, without the participation of another vehicle or pedestrian.

The vehicle

Driving varies from car to car, so it's important to drive calmly in a borrowed or leased vehicle that you don't know well.

Road

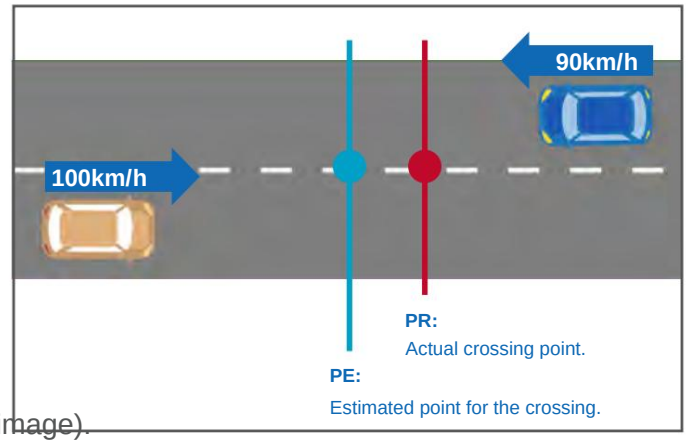
You have to adapt your speed to the conditions and appearance of the road. On a gravel or gravel road, the braking distance is significantly longer than on a paved road. Wet asphalt is more slippery than dry asphalt. Look as far ahead as you can to see curves or other hazards in advance so you can slow down ahead of time. Drive with maximum attention to visualize the dangers.

Slow down before reaching a curve. Once you are in it, do not let the vehicle move under its own inertia. Gradually accelerate to regain speed when exiting the curve.

Meetings and overtaking

Encounters

The risks of accidents when encountering or crossing another vehicle are greater to the extent that the road or street is narrower. As we saw previously, it is difficult to calculate the distance at which the person coming in the opposite direction is, and there is a tendency to believe that the crossing will take place further than where it actually occurs.



Frequently, it is mistakenly estimated that the crossing will occur in the middle of the distance between both vehicles, which will be true only when the two vehicles are traveling at the same speed (see image).

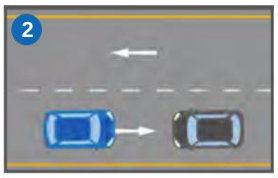
The higher your speed, the less time you will have to make the right judgment, make the right decision and react.

If two vehicles are traveling in opposite directions, they approach each other at a speed equal to the sum of the speeds of each one.

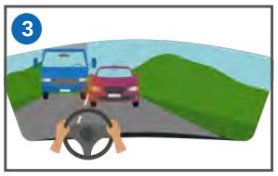
Dangers of the encounter

Always be wary of vehicles coming from the opposite direction: they can make an unexpected maneuver and invade the side of the road you are driving on.

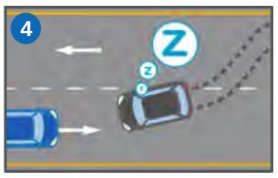
1 A vehicle coming in a row in the opposite direction can leave it to overtake other vehicles. **Measure: keep to your right and reduce speed.**



2 An experience that can be unpleasant is one in which a vehicle coming in the opposite direction does so on the side of the road intended for your circulation. **Measure: brake vigorously, signal with your lights and horn.** Finally, try to move to the right. Never pass to the left side: the driver may realize his wrong action and return to his right side.

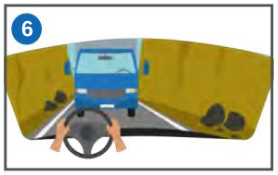


3 Encounter with a large vehicle as you approach the top of a hill.
The driver behind him may be very reckless and try to overtake before changing grade. **Measure: Be alert to move to the right and reduce your speed.**



4 The driver coming in the opposite direction may have fallen asleep at the wheel. **Measure: never drive too close to the road axis.**

5 The vehicle coming from the opposite direction can skid. **Measure: When the pavement is slippery and you are about to cross paths with a vehicle, reduce speed, move away from the center of the road and do not brake in panic.** As a last resort, exit the road to the right.



6 Sudden encounter with a truck on a narrow, winding road. **Measure: Reduce speed and calmly steer your vehicle to the right.** In most cases crossing is possible. Don't brake suddenly in panic.

Tips and advice

Vehicles coming from the opposite direction are always a danger. The closer you drive to the center of the road, the greater the risk of crossing. Therefore, stay as close to the right edge as possible.

Don't look at the vehicle coming in the opposite direction. Try to look far ahead along the right edge of the road.

On narrow roads the lateral distances from oncoming vehicles and pedestrians are smaller. Reduce the risk of accidents by driving at lower speeds.

On some occasions there may be fixed obstacles on the road, for example, when

work on the road or a vehicle has stopped due to an emergency. As a general rule in these cases, **whoever has obstacles on their side must let those coming from the opposite direction pass,** unless, in the case of road work, there is some special traffic control system to regulate the passage of vehicles. for the area, as an example, the presence of a flagman.

Overtaking

The situation you see in the image occurs frequently on our roads. There are many people who drive recklessly when overtaking or misjudge distances, which can lead to a collision or someone having to leave the road.

Thinking that maintaining the maximum permitted speed results in a very significant gain in time is a big mistake, which also creates stress and unnecessary haste.

Look at the following chart, which shows the time gained by increasing your speed and compare that gain with the loss of safety.

Example: if you drive at 60 km/h and increase your speed to 80 km/h, in ten kilometers you will have gained 2 minutes and 30 seconds.

What you earn in minutes and seconds every 10 kilometers:

if you drive to:	and you increase your speed to: (km/h)								
	fifty	60	70	80	90	100	110	120	130
40km/h	3:00	5 o'clock	6:26	7:30	8:20	9 o'clock	9:33	10:00	10:23
50km/h	-	2:00	3:26	4:30	5:20	6 o'clock	6:33	7:00	7:23
60km/h	-	-	1:26	2:30	3:20	4:00	4:33	5 o'clock	5:23
70km/h	-	-	-	1:04	1:54	2:34	3:07	3:34	3:57
80km/h	-	-	-	-	0:50	1:30	2:03	2:30	2:53
90km/h	-	-	-	-	-	0:40	1:13	1:40	2:03
40km/h	-	-	-	-	-	-	0:33	1:00	1:23
100km/h	-	-	-	-	-	-	-	0:27	0:50
120km/h	-	-	-	-	-	-	-	-	0:23

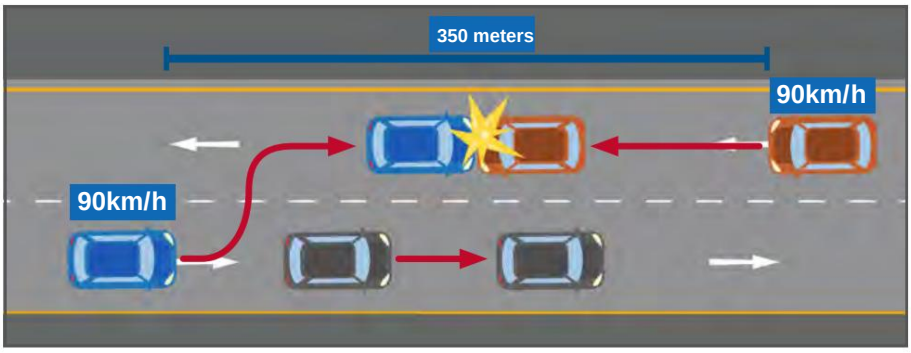
When you think about overtaking another vehicle, and to do so you need to cross the center line of the road, **always ask yourself the following questions:**

- What do I gain by advancing?

- How much free space do I have forward?
- What overtaking distance do I need?
- At what speed is the vehicle in front traveling?
- How fast can I accelerate?
- At what speed can I overtake?

Whenever a vehicle comes in the opposite direction, think that it is doing so at a higher speed than you think, and do not count on receiving help from the vehicle you are going to overtake; This can increase your speed.

Let's analyze the case in the following image: suppose that you are traveling at 90 km/h and that you are going to overtake the vehicle in front of you. Suddenly, 350 meters away, a vehicle appears coming from the opposite direction and also traveling at 90 km/h. Overtaking takes 8 seconds. In that time, you and the oncoming vehicle each travel 200 meters; The vehicle ahead travels 160 meters. **The accident is a fact.**



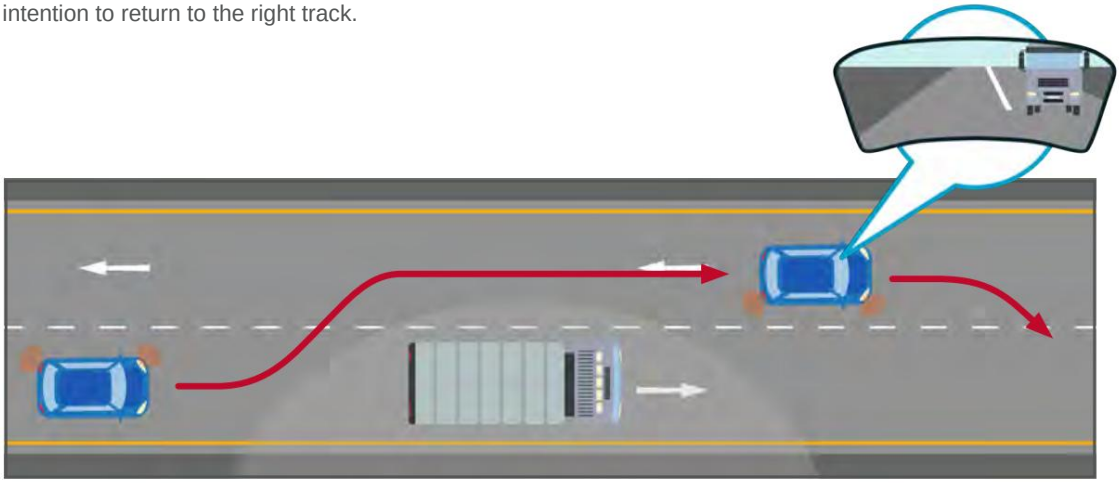
When you go to overtake:

- Look far ahead and prepare yourself.
- Look in the rearview mirrors and back over your shoulder to check that no one has started to get ahead If the person behind you has already started the maneuver, you must wait until it is finished.
- Signal before changing lanes.
- Move quickly to the track on the left, to reach a good speed difference with respect to the of the vehicle to be overtaken.
- Make sure that the vehicle you are going to overtake has no obstacles in front of it.
- Look far ahead. Don't forget that a vehicle may appear on a side road.

> **When passing a large vehicle, keep enough space behind it to have a better view of the road ahead. Keep in mind that overtaking a long vehicle is more risky.**

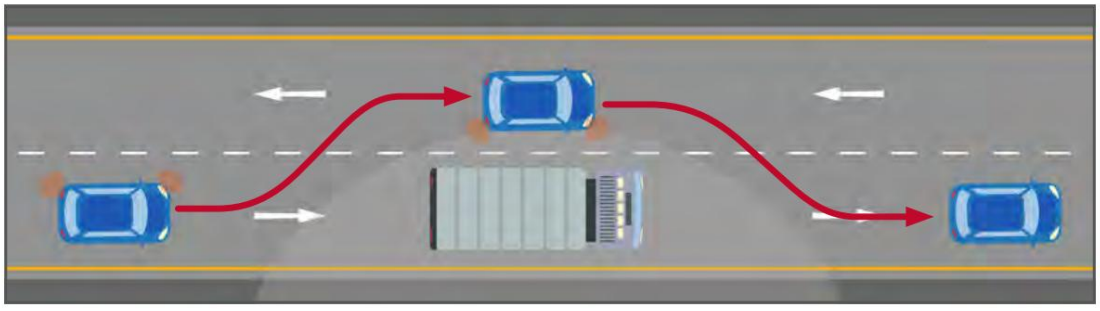
During overtaking:

- Try to overtake quickly without exceeding the maximum permitted speed limit.
- Maintain sufficient lateral distance from the vehicle in front.
- If a vehicle appears in the opposite direction or you feel unsafe, stop overtaking instead.
to do it without certainty.
- Don't look at the vehicle you are passing. There is always a risk of steering the vehicle into it if you look at it.
- Signal your intention to return to the right track.



At the end of the overtaking:

- Turn to your right once you see the vehicle in front of you and part of the road in front of it in your interior rearview mirror. Remember that you must keep the signal light on until you finish the maneuver.
- Once on the right track, turn off your markers.
- Return to normal speed.



When they pass you:

- Make overtaking easier by staying as far to the right as possible.
- Don't increase your speed.
- In case of danger, do everything you can to help whoever passes you. Slow down your speed and
Move as far to the right as you can.

The rules about overtaking

Overtaking **must always be done on the left.**

You must not overtake other vehicles by crossing the axis or center line of the road when:

Sign
Do not overtake

- Do not have free space forward that allows you to carry out the maneuver safely and without interfering with vehicles approaching from the opposite direction.
- You drive over a bridge, viaduct, tunnel or railway crossing or when approaching any of these places from a minimum distance of 200 meters.
- Signage or demarcations prohibit it.
- You approach the top of a hill or gradient, or a curve.
- You approach an intersection, or at the intersection itself, or at a pedestrian crossing, unless regulated by a traffic light. Do not overtake in these cases, even if you do not need to cross the road center line to do so.
- The driver of the vehicle in front of you has signaled that he plans to overtake or move to the left.
- A vehicle behind you has started to overtake.

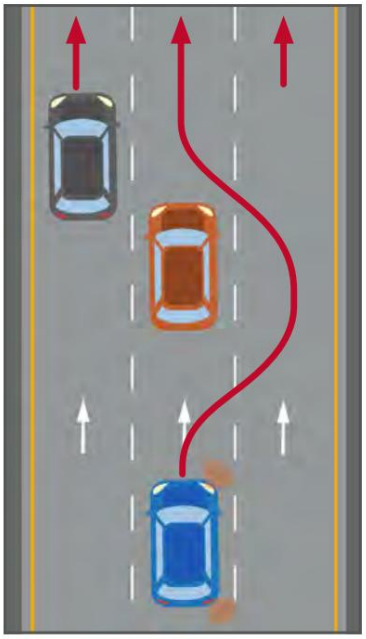
Exceptions to overtaking rules

You can only overtake a vehicle on the right in the following two situations:

- When the vehicle hit is making or is about to make a left turn.
- When you travel on an urban road with three or more traffic lanes with the same direction of traffic.

Current regulations distinguish these overtaking from those that are carried out by crossing the road axis, calling them **overtaking maneuvers.** Thus, it is understood that you pass another vehicle when you are in front of it without invading the lane in the opposite direction. Legally, these maneuvers do not constitute overtaking.

You should not carry out this overtaking maneuver outside the road.



Condition under which cycles, motorcycles and scooters can overtake other vehicles on the same track: It is important to mention that drivers of cycles, motorcycles or scooters can overtake other vehicles on the same track, on either side of the road. these, **to reach the stop line or the advanced stop line,** as appropriate. This maneuver must be carried out at a moderate speed, taking the necessary precautions, **whenever the overtaken vehicles are stopped.**

Parking and stopping

You should not park or stop your vehicle where it could constitute a risk to other people.

A parked vehicle can impede or disrupt the movement of others. For this reason, when you need to park, use, to the extent you can, the places specially designated for off-street vehicle parking. When this is not possible, and as long as the signs do not prohibit it, **park on the right side of the road in the direction of traffic.** Only exceptionally and when signage allows it, you can park on the left side.

Unless another form of parking is permitted, you must do so parallel to the shoulder, no more than 30 centimeters from it, to impede traffic as little as possible and leaving a minimum distance of 60 centimeters from other parked vehicles.

On rural roads or roads, park so that the entire vehicle is on the shoulder. Where there is no berm, always do it on the right side and as close to the ditch as you can.

WHEN PARKING, DON'T FORGET:

- On roads with a certain inclination, leave the wheels turned towards the ditch or towards the center of the road, depending on whether it is going downhill or uphill, respectively, so that if the vehicle starts to roll it is stopped.
- Stop the engine, leave the vehicle engaged and with the handbrake on.
- Take out the ignition key.
- Look behind you before opening the door, making sure you don't force anyone to swerve.
- Leave the vehicle locked.
- That you should not leave girls and/or small children or animals inside the vehicle.

Places where parking and stopping are prohibited:

- Where official signs prohibit it.
- On sidewalks, pedestrian crossings or places intended only for their transit.
- In double row, with respect to other vehicles parked or stopped on the road next to the ditch.
- On the sides, on or between the pedestrian shelters, trays or platforms.
- Inside a crossroads.
- On the side or opposite side of any obstruction to traffic, excavation or work on a roadway.
- On cycle paths.
- On bridges, tunnels, elevated structures and underpasses and overpasses.
- On the carriageways or shoulders of public roads with 2 or more traffic lanes in the same direction.

Signs regulating parking and stopping		
		
In the place where this sign is posted **you must not park or stop** to pick up or drop off passengers.	**You should not park** in the place where this sign is posted .	In places where **parking** of any vehicle is always permitted.
		
The parking prohibition **may not be applicable to certain vehicles** of people with disabilities, belonging to an embassy, etc.	The previous sign can be complemented with **legends that limit the scope of the prohibition** to certain days of the week, times, etc.	You can park where there is this sign, but you must **remain in your vehicle** in order to pick it up when the person with the reservation arrives.

When you stop behind a vehicle waiting for the green light, keep a safe distance. This is considered adequate if you can see the rear tires of the vehicle in front.

Places where you should not park:

- Where there is a continuous yellow line painted along the sill.
- In front of the garage doors of private homes and commercial establishments.
- Less than 3 meters from the doors of churches, educational establishments, hotels and show and entertainment venues, during busy hours.
- Less than 5 meters from a fire faucet.
- Within 10 meters of a STOP sign, Yield sign and danger warning signs, such as School, Narrow Bridge, Curve, etc.
- Less than 10 meters from the entrance to a bomb station, first aid station and hospitals.

- Less than 10 meters from a corner.
- Less than 15 meters from the main entrance door to military, police or Gendarmerie facilities in Chile.
- Less than 20 meters from a sign indicating a stop for collective transportation vehicles.
- Less than 20 meters from a level railway crossing.

You will be able to park in a space reserved for another vehicle, as long as you remain in yours to be able to leave the parking lot when the person with the reservation arrives. You can also stop in a place where parking is prohibited, but only for the minimum time to pick up or drop off passengers.

Parking at night or when there is poor visibility

When at night you park on a road without public lighting or when visibility conditions are poor, make sure you can be visible to other drivers by always keeping your parking lights on.

Emergency parking

When you accidentally have to park in an unauthorized place due to breakdowns, mechanical failures or other causes, take all necessary measures for your safety and that of other vehicles, installing emergency reflective devices on the road. Also, if possible, keep your hazard warning lights on.

If you get out of the vehicle, you should always wear a high visibility vest. This must be yellow in color and have bands of retroreflective material with a width of no less than 50 millimeters.

Models of high visibility vests allowed.

Recoil

You should not drive in reverse, unless it is essential and **only in the following cases:**

- To maintain free movement.
- To join the circulation.
- To park.

However, you should not go back at an intersection, even if you have crossed the stop line, unless you receive an express indication from Carabineros.

Before backing up, check that there are no pedestrians, especially girls and/or boys, or obstacles behind you. Back away slowly and carefully. Don't rely on mirrors to judge the distance behind you.

railway crossings

Respect the signs at railway crossings and only cross them when you are absolutely sure that a train is not coming. Some crossings have barriers activated manually by a crossing guard, others have automatic barriers or light and acoustic signals, which are activated when a train approaches. However, you should not trust these systems; Always stop, take your time to look in both directions and listen before crossing, to do this, turn off your vehicle's radio if it is on.

Crossing Signal
Level Railway
Without Barriers

Remember that trains cannot stop easily. A train traveling at 100 km/h will need between 800 to 1,000 meters to stop.

The train always has the right of way and in practice can never stop on time. The responsibility rests completely with you as the driver of a vehicle.

If you have already started to cross and the light or acoustic signals activate or you hear the approach of a train, do not stop.

Never cross a railway crossing if you do not have enough space on the other side of the railway track(s).

Never stop at or just after an intersection, or park within 20 meters of it. Also do not overtake another vehicle at the intersection or within 200 meters of it.

IF YOUR VEHICLE BREAKS DOWN AT A RAILWAY CROSSING:

- Get everyone out of the vehicle.
- If possible, and only if you have time before an approaching train, move the vehicle clearing the crossing. Otherwise, exit the intersection.

CHAPTER

7

Driving in special circumstances

Driving in special circumstances

Driving in the dark

In the dark, a vehicle travels at a speed close to 90 km/h. The person driving looks straight ahead. Suddenly, he feels a knock on the bodywork and wonders what it could have been. Then he thinks it must have been a small animal. The next day, he reads in the newspaper that a pedestrian was hit by a fleeing motorist. The place of the accident approximately coincides with the place where he felt the blow to the bodywork, and a terrible thought comes to mind. After a few days he goes to Carabineros, where it is confirmed that he must have been the one who ran over and killed a person.

Unfortunately this story is not fiction, but has happened in reality and could happen to anyone who lacks the knowledge and practice necessary to drive in the dark.

The risk of accidents is greater at night, among other reasons, due to our limited ability to see in the dark. Our eyes take some time to adjust to the darkness when we leave a lit room. Likewise, as we have already seen, when driving in the dark and even if we do not look directly at the headlights of vehicles coming in the opposite direction, it is easy for blindness effects to occur that can temporarily worsen our vision, if If this happens, reduce speed or stop the vehicle if necessary.

To prevent accidents, increase the distance between your vehicle and those in front of you.

Our ability to judge distances depends on seeing clear colors and contours. In the dark, these fade. The same happens when visibility is reduced due to fog or rain. Under these conditions, oncoming traffic appears to be further away than it really is. This can cause you to have problems perceiving distances when you want to overtake another vehicle.

When driving in the dark, your chances of spotting an obstacle may depend on:

- The power and adjustment of your lights.
- Your visual ability.
- The ability to reflect the light that the obstacle has.
- Rain, fog or snow.
- The power of the lights of the vehicle coming in the opposite direction.

Visibility distances

	dark clothes	light clothes	clothes with reflective
with low lights	25m	60m	125m
with high lights	150m	300m	450m

Turning on lights

In order to see and be visible, from **half an hour after sunset to half an hour before sunrise, and whenever visibility conditions make it necessary,** vehicles must necessarily circulate with their lights on: low beams on. urban roads and high beams on rural roads and highways. However, and as demonstrated by both international and national experience in this regard, it is advisable that, even during the day, vehicles circulate with their low beams on, since this makes them more visible, and, therefore, increases their possibilities. to be timely perceived by pedestrians and other drivers.

On interurban roads, even when it is not dark, nor are visibility conditions reduced due to rain or other causes, you must always drive with your lights on.

Under no circumstances will you be able to drive with the parking lights on.

Light management at a meeting

When you find yourself in the dark and on a non-urban road with another vehicle approaching from the opposite direction, you must switch to low beams to avoid blinding the driver. This refers to encounters with all types of vehicles, that is, also with cyclists. Direct your gaze into the distance towards the right edge of the road.

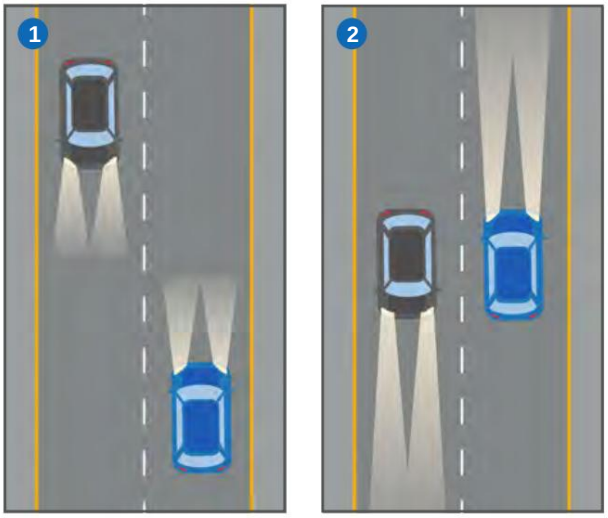
You don't need to dim your lights when you cross paths with pedestrians.

Dim your lights early enough, but don't do it too soon (1). Unless one of the drivers is blinded by the other's lights, the entire space between the two vehicles must be illuminated.

It is also important that you switch to high beams at the time of the encounter itself ( ), to regain greater visibility of any obstacles or pedestrians walking on the right side of the road.

Move away from the right edge to avoid hitting any obstacles and reduce your speed, as your visibility is limited.

If the road is wide, you can wait longer before switching to low beams. In other situations, the change must be made more in advance. For example, when passing a bus or truck at a change in gradient, the people driving sit at a higher height than those driving cars or motorcycles.

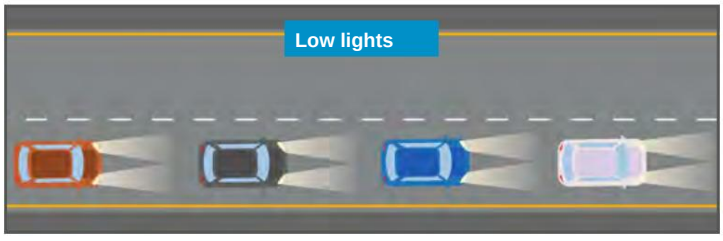


If you switch to low beams for a moment when cornering and changing grades, you may be able to spot pedestrians or other obstacles in the glare of the lights of oncoming vehicles.

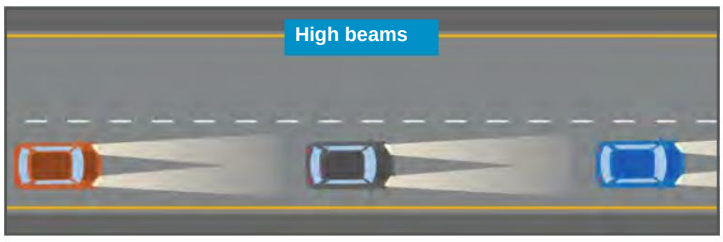
Light management when overtaking

When you overtake a vehicle in front, switch to low beams to avoid dazzling the driver through your rearview mirror.

Buses and trucks have larger rearview mirrors. That's why dim your lights earlier.



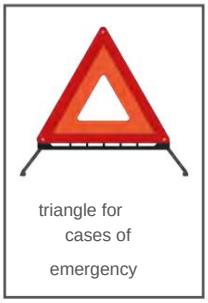
When overtaking, switch to high beams as soon as you are sure not to blind the driver of the vehicle in front of you. There may be curves or obstacles on the left or right side of the road, which you would not be able to detect if you have low lights.



When overtaking you, help whoever is doing it by driving with high beams as much as possible, dim your lights when the vehicle appears obliquely to your left to avoid dazzling the person driving it. Your car's high beams should illuminate the road for both of you during overtaking.

Light management when parking

When parking on a public road without lighting, turn on the parking lights. To ensure you are visible, you can also turn on the internal lighting.
Always park on the right side in the direction of traffic. If your vehicle has suffered a fault, it is important that you install the triangle in advance in case of emergencies. If your electrical system is working, turn on your flashing lights as well.



triangle for cases of emergency

The lights of other vehicles

When driving in the dark it is important that you know how to recognize, through the lights, the different types of vehicles that you may encounter:

1 Motorized vehicles with four or more wheels

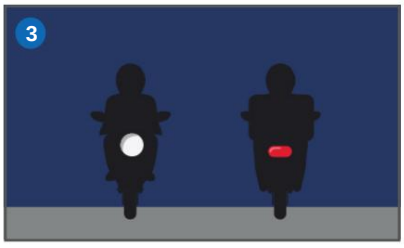
- Front: two spotlights that project high and low beams, two parking lights and two flashing turn signals.
- Rear: two parking lights, two flashing turning lights, two reverse lights, two fixed red lights, two brake lights and one that illuminates the vehicle's license plate. Almost all vehicles have a third brake light.

2 Cargo and collective transportation vehicles

- Cargo and collective transportation vehicles also have front yellow lights at both ends of the upper part of the body, which indicate the maximum width and height.
- They must also have red lights at the ends of their upper rear part.

3 Motorcycles and scooters

- Front: a spotlight that projects high and low beams.
- Rear: solid red light, brake light and two flashing turn lights.



4 Tricycles and bicycles

- Front: a spotlight that projects front light.
- Rear: solid red light.

5 Animal-drawn vehicles and handcarts

- They must have a lantern in the front part of each of the sides that protrudes from its structure and that projects white light forward and red light backward.

Keep in mind that all the lights that the vehicles project forward are white or yellow, and those that project backwards are red, with the exception of the reverse lights, which are white, and the rear turning lights, which can be red or yellow (amber).

Another element that, although they are not lights, helps us identify other vehicles in the dark are the **retroreflective stripes.** These are located in the rear and side of larger cargo vehicles and also in school transportation vehicles. In addition, the regulations indicate that bicycles must have reflectors on their wheels, rear, and front and rear forks.

Always keep in mind the possibility that some of the vehicles do not have the required lights, so be alert.

Driving at night in an urban area

When driving through an urban area that has street lighting, you should not have your high beams on. In these places, always take into account the fact that pedestrians, cyclists, girls, boys or other users are not always visible enough.

In these circumstances it is necessary that you pay special attention, since it may be difficult to discover them in time.

Driving with load

A heavy load can modify the maneuverability of your vehicle, therefore, do not expect its operation to be the same as you are used to under normal conditions. Acceleration will be slower and stopping distances will increase. You'll find it leans more when cornering and you'll need more room to overtake.

With a heavy load in the back of your car you will feel the steering wheel lighter and the vehicle will tend to turn more than expected; The headlights can also go out of focus. With a heavy load on the front, it will tend to turn less. A roof rack, or a small trailer, will allow for more even distribution of the load.

When placing cargo inside your vehicle, do not obstruct the view of the rear corners or the field of vision. of the rearview mirror. Never carry hard, pointed or heavy objects on the back shelf, since with a small crash or sudden braking, they can move forward and become projectiles.

When carrying extra load, proper tire pressure and size is very important. For your safety, your tires may need more air or may be larger. To do this, consult the vehicle manual or whoever sold it to you.

WHEN TRANSPORTING FREIGHT, DON'T FORGET:

- Check the grill fastenings.
- Make sure that the load cannot move when braking, turning or accelerating, holding it firmly. If you cover the load with a tarp, consider the effect of wind speed.
- Do not overload the grill. Take into consideration the stability of the vehicle and the strength of the roof.

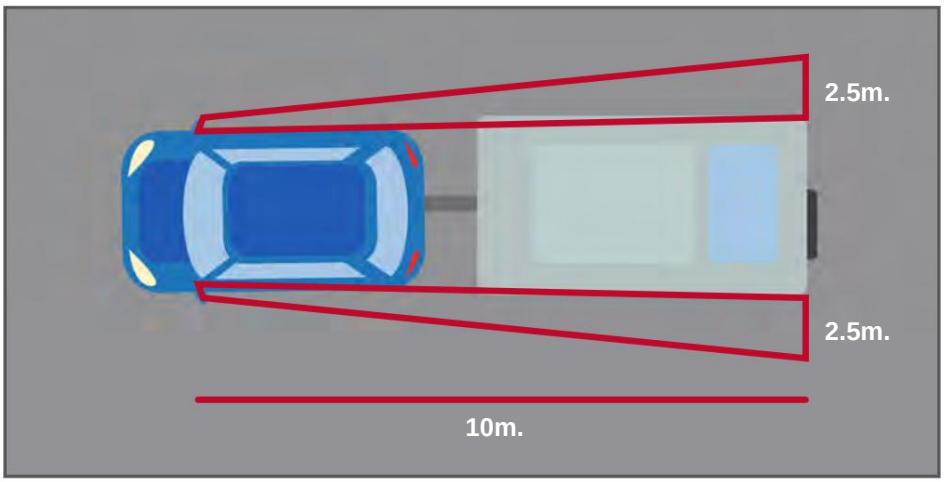
If you see that a vehicle has dropped an object from its load, report it via an SOS phone.

Driving with a trailer

The Class B Driver's License allows you to drive your car with a light trailer, whose weight does not exceed the tare weight of the drive unit, and as long as the total weight does not exceed 3,500 kilograms.

Trailers are generally wider than cars. For this reason and to have adequate vision, install extra rearview mirrors on your vehicle or extend the existing ones using special arms. Don't forget to remove any extra mirrors or extension arms when you unhitch the trailer.

While towing the trailer, always check your rearview mirrors.



Brakes

When trailers have a load capacity greater than 750 kilograms, they must have brakes, with push brakes being the most common. With them, braking takes place when the trailer pushes the vehicle. Push brakes can be fitted to all vehicles that have a suitable towing device. Electric brakes require a tow vehicle with an electric brake plug.

In addition, trailers with brakes must have one in case of emergency, which works automatically when the towing device breaks.

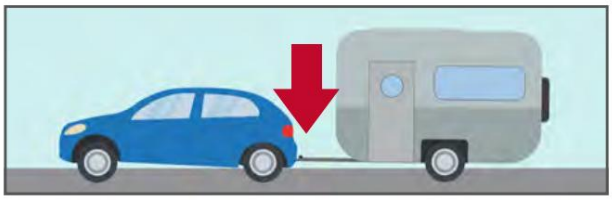
Ball coupling

Always check that the hitch device is in good condition and that it is correctly linked.

Load the trailer so that the pressure on the tow ball is correct. To do this, see the manufacturer's recommendations.

When the pressure on the sphere is low or zero, the rear of the car is raised. The pressure in the rear wheels decreases and the range of the lights is less.
The entire vehicle begins to weave and the trailer may roll over.

If the pressure on the sphere is too great, the rear of the car is loaded downwards. The pressure in the front wheels decreases and low beams can blind oncoming drivers.



BEFORE YOU START DRIVING WITH A TRAILER, CHECK THAT:

- The load on the trailer is well distributed and that the pressure on the sphere is correct.
- The trailer is well hitched.
- Light (and electric brake) connections are well plugged in.
- The car's rearview mirrors are properly adjusted.
- The legs and support wheel are secured and screwed.
- All lights work and are clean.
- The trailer parking brake is released.
- The brake system works.

If the trailer begins to weave, release the accelerator slowly until you regain stability and can continue on your route.

Driving on highways

On highways and highways, vehicles travel at higher speeds than on other roads. Therefore, you also have to think faster. It is important that you use your mirrors permanently and that you are more alert to road conditions than on other streets or roads.

Do not use a highway if your vehicle cannot develop a speed that does not put other people at risk.

When you are going to drive on a highway, make sure that your vehicle can develop an adequate speed, that it has the correct tire pressure and enough fuel, oil and water to be able to reach at least the next service station. . Also, check that the windshields, mirrors, lights and headlights are clean.

Don't forget to plan your trip. You must know where you are going to enter the highway and where you are going to leave it.

When taking the highway

To enter the highways there is a special lane, called **an acceleration lane.** You must remain on this lane while you adapt your speed to the flow of the highway and until a gap occurs between vehicles that allows you to safely merge into them. Vehicles traveling on the highway have priority. If you do not find a safe gap, stop until one occurs.

Use your mirrors and, to be sure, turn your head before leaving the acceleration track. Once you have left the acceleration lane, stay on the right lane for the time necessary to get used to the speed of the rest, before overtaking.

Highway signal with Televía or System Complementary

On some highways, the toll for using them is through an electronic collection device (TAG or Televía) that detects when you use these roads. If you do not have this device, check with the highway concession companies about the possibility of another form of payment, such as “day passes.”

Remember that using highways without a payment system is punishable.

On the freeway

When you have good visibility and road conditions are good, drive at a constant speed at which you can maneuver easily. Do not exceed the maximum speed limits and maintain a reasonable and safe distance from the vehicle in front. The **three-second rule** is essential when driving at high speeds.

When driving on a highway, try to facilitate access for vehicles that are going to enter:

- Lightening the pressure on the accelerator and letting whoever wants to enter pass.

- Increasing your speed when it is most convenient, without exceeding the maximum allowed.
- Changing tracks.

Good and fast roads do not only have advantages. Driving through these is monotonous, which makes you tire easily or make you sleepy. To help avoid this, make sure you have good ventilation in your vehicle. When you feel tired or sleepy, leave the road and find a safe place to rest.

Another risk when driving on a highway is that after a few dozen kilometers you let yourself be blinded by the speed. Then you will believe that the speed is lower than it really is, which causes you to drive too close to the vehicles ahead. Therefore, it is important that you constantly monitor your speed by looking at the speedometer.

Do not overtake another vehicle unless you know it is safe to do so. Use your mirrors. Remember that traffic behind you can come very quickly. Signal before changing lanes.

Stopping and parking

Do not stop on a highway unless:

- An emergency occurs.
- Carabineros requested it.

Do not park on a highway, including its shoulders, or on an access to them.

Do not pick up, drop off, or walk on a driveway or anywhere on a highway or high-speed road unless it is an emergency.

Mechanical failures on highways

If your vehicle has a problem, exit the highway at the next exit or go to a service area.
If you cannot do this, you must:

- Try to stop near an SOS phone.
- Position yourself on the shoulder, stopping as far from the road as possible.
- Turn on your flashing hazard warning lights.
- Keep your parking lights on if it is dark or there is low visibility.
- Exit the vehicle through the right door, making sure that your passengers do the same.
- Ensure that passengers wait near the vehicle, but away from traffic and the shoulder, and that the girls and boys remain under surveillance.
- Walk to an SOS telephone and call an Emergency Service or Carabineros.

- Wait near your vehicle, but away from the road and shoulder.
- If you think you are at risk, return to the vehicle by entering through the door on the right side. And fasten your seat belt.

If you cannot reach the berm with your vehicle:

- Turn on your flashing hazard warning lights.
- Get out of your vehicle only when it is safe to do so. If you do, you must wear your reflective vest. If you decide to stay in your vehicle, do so with your seat belt on until emergency services arrive.
- Do not attempt to place a triangle or other reflective device on the highway roadway, nor attempt make the slightest repair.

If you witness this situation, show solidarity and notify Carabineros.

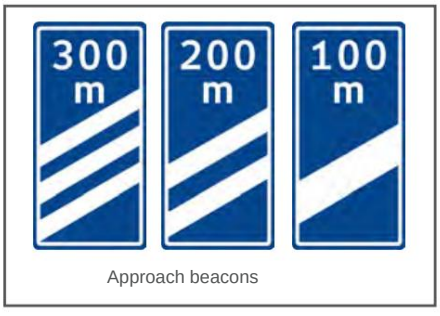
How to get off the highway

Unless signs tell you that a track takes you directly off the highway, you should leave the highway on a side road to the right. **Look at the signs that inform you about your departure and position yourself in advance on the track on the right side. Signal right and slow down when necessary.**

The deceleration lane for exiting the highway is distinguished by **segmented lines that are wider than normal** (as shown in the image).

When leaving the highway your speed may be higher than you think. Thus, 80 km/h may seem like 50 km/h to you. That is why it is important that you control your speed by looking at the speedometer.

The distance of 300 m, 200 m and 100 m to the start of a deceleration track to leave a motorway is reported with special signs.



Approach beacons

Also keep in mind that many highway exits have sharp curves, so it is essential that you reduce your speed.

Driving in tunnels

Driving through tunnels requires special behavior and some extra precautions:

- When you have to drive through a tunnel, make sure you have enough fuel to avoid taking the risk. of leaving your vehicle stopped inside.

- If you don't have lights on, turn them on when entering the tunnel, even if it has good lighting.

Do this in advance to prevent those behind you from confusing your taillights with your brake lights.

- Take off your glasses if you are wearing them.
- Close your windows and turn on the ventilation system.
- Pay attention to any variable message signs that exist.
- Be careful of puddles caused by dripping or seeping water.
- If a traffic jam occurs, turn on your emergency lights immediately and maintain a safe distance from the vehicle in front, even if you are traveling slowly or not moving. In the latter case, remember to turn off your vehicle's engine.

If your vehicle suffers a damage:

- Turn on your emergency lights.
- If you cannot move your vehicle, stay in it with its other occupants, with their seat belts.

security posts, and wait for assistance.

- If you can move your vehicle, take it out of the tunnel, or get as close as possible to the right and ideally to a place specially set up for emergencies.
- Turn off the engine and wait for help.
- If you need to ask for assistance, do so exclusively from an SOS phone, since cell phones do not indicate from where the call is being made.
- Follow the instructions of the tunnel staff.

In the event of a fire in your vehicle:

- If possible, exit the tunnel. If you can't, move to the right and turn off the engine.
- Leave the vehicle immediately.
- Use your own fire extinguisher or one that is available in the tunnel.
- If you cannot extinguish the fire, request help from an emergency phone.

IN CONCLUSION, DON'T FORGET:

- Mirrors - signaling - maneuver. Be especially careful at night and when there is poor visibility, as in such circumstances it is more difficult to appreciate speeds and distances.
- On highways and roads you must drive on the right lane when your speed is less than the maximum allowed.
- If you pass a motorcyclist, you must leave a safe lateral distance, the same as you would leave for a car.
- It is advisable to overtake other vehicles only on the left.
- You must drive on the right lane unless you are going to overtake another vehicle.
- You should not use the shoulder to circulate.
- Traffic signs are there to protect you. Respect them, do what they tell you and drive carefully when they warn you of danger.

Driving in different weather conditions

When weather conditions are unfavorable, the first safety rule is to ask yourself if traveling in such conditions with a vehicle is essential. If you must drive, make sure the vehicle is in perfect condition.

The rain

It is an atmospheric phenomenon that can negatively influence driving and that requires the driver to take appropriate precautions to ensure safety, since when the road is wet or covered with a layer of water, it becomes slippery.

However, it is with the first drops of rain that the most precautions must be taken, because when the water mixes with the dust or oil found on the asphalt, the road becomes very slippery, especially when it rains after a long period in which there has been no rain and until the road is clean, which represents a serious danger to traffic safety. **Slow down at the first signs of water on the road.**

In these circumstances, **the grip of the tires is reduced,** so not having them in good condition or worn is incompatible with safe driving, since not having sufficiently deep grooves, they do not adhere well and the vehicle can **skid and skid, thus losing control of it.**
On the other hand, rain causes **your visibility to be reduced.**

Measures you should adopt to improve adhesion and prevent slipping:

- **Frequently check if the brakes respond,** because when they get wet they lose effectiveness and must be dried. To do this, without intending to brake, press lightly and gently and repeatedly on the brake pedal **(pumping effect).**

- **Brake gently,** progressively and with short pedal strokes, not abruptly, because this can cause the wheels to lock and the vehicle would slide on them, skidding. This effect does not occur when the vehicle has ABS brakes. If the vehicle begins to skid, release the brake completely to regain traction on the wheels.

- **Increase your distance from the vehicle in front,** to have, in case of emergency, more space to stop. Your braking distance will be at least double what it would be under ideal conditions, due to the decrease in tire grip on the road.

- **Speed down;** This recommendation is especially important when approaching a curve, sections with layers of water, puddles or fallen leaves, to alleviate the decrease in tire grip.

Aquaplaning or Hydroplaning:
When the rain is very intense, a film or layer of water forms on the road that gets between the road and the tires, making their adhesion very difficult.

When the layer of water on the road is greater than what the tires can dislodge through their grooves, the following happens:

- Water accumulates in front of the wheels.
- Tires lose grip and contact with the road surface.
- The vehicle slides, glides and moves without any actual contact with the road surface.
- The driver loses control over the vehicle, not obeying the steering or the brakes.

This phenomenon is commonly known as **“aquaplaning”** or **“hydroplaning”.**

The higher the speed, the more water the tires must displace and the more water accumulates under them, which can saturate the ruts. For this reason, to avoid **“aquaplaning”, the best advice is to moderate the speed,** so that the tires can dislodge the water well and grip the road surface. Furthermore, it is advisable not to brake or accelerate unnecessarily.

When there are puddles of water on the road:

- **Avoid passing through them,** either by leaving them between the wheels or to the side if possible and without risk.
- **Moderate your speed.** When it is not possible to avoid puddles, or you have to cross them with the wheels on only one side, reduce the speed even more so that the vehicle does not lose stability. In this way, you will also avoid getting other vehicles wet and, eventually, affecting their visibility. Additionally, you must be careful not to wet pedestrians or cyclists.

When the road is flooded:

If you have no alternative and you are forced to go through a flooded section, drive slowly in first gear and at a constant speed.

When you leave the water, before recovering the speed that the circumstances allow, check the effectiveness of your brakes by pressing the pedal lightly. If they don't work well, dry them by gently braking.

You can dry your brakes by lightly pressing the brake pedal.

Measures you should take to improve visibility:

Rain reduces visibility not only because there is less light, but also because the windshield, side windows and rear window are covered on the outside by water droplets, sometimes also by mud splashes. In addition, the interior of the vehicle becomes foggy. Likewise, the vehicle's rearview mirrors and lights are affected.

To improve visibility:

- Keep your windshield, rear window and all your lights clean. If necessary, stop to clean them.
- Turn on the windshield wipers and the rear window wiper, if the vehicle has them.
- Activate the windshield washer, when necessary. For greater cleaning efficiency, it is advisable to use windshield washer fluid.
- Eliminates fog from the inside of the windshield, making use of the heating and ventilation system, attached to the windshield; activates the rear window defroster.
- Make yourself more visible to others. Remember to always keep your lights on.

Snow

When the first flakes of snow fall, driving is as dangerous as when the first drops of water fall, because, when the snow mixes with dust, oil and other debris, and is stepped on by vehicles, a smear is formed. that transforms the pavement into an extremely slippery track.

When the snow is soft and freshly fallen, it forms a light layer that melts, making the road slippery.

With snow, **the grip of the tires is reduced, friction decreases and, therefore, there is a risk of slipping. Additionally, when snow falls visibility is reduced.**

When snow freezes or has been on the road for a while and has become hard and tight, its effects are similar to those of ice.

Measures you should adopt to improve adhesion and prevent slipping:

- As a general rule, when there is snow, drive slowly and smoothly, without sudden movements. steering, or sudden gear changes.
- The brakes, accelerator, clutch, gear lever and steering must be used with extreme delicacy and smoothness.
- Frequently check the effectiveness of the brakes.
- Increases the safety distance from the vehicle in front; On slippery pavement your stopping distance is much greater than under normal conditions.
- Use chains, at least, on the drive wheels, that is, the traction ones.
- Sometimes, some of the snow thrown back by the tires gets lodged in the fenders; Remove it as many times as necessary.
- Follow the tracks left by the other vehicles, being careful not to damage the lower parts of yours with the central mounds.
- Try not to overtake.
- Climb the slopes slowly and at a sustained speed, because when trying to recover the lost speed you can cause the drive wheels to skid, and if the vehicle stops it will be very difficult for you to resume driving.
- Use the highest gear that is reasonably possible, as this will achieve the minimum increase in speed of the drive wheels and reduce the risk of them skidding. Avoid gear changes.
- Descend slopes slowly, at a very moderate speed and in a low gear. Brake with the engine and using the brakes as necessary, very gently and in advance, to avoid skidding.
- When entering a curve, do so at such a speed that it is not necessary to use the brakes throughout the curve, as the front wheels are much more likely to lock if you brake while turning the steering.
- At dusk, when the sun and the temperature drop, the snow on the route begins to freeze quickly, forming a very dangerous film of frost. If it is late to return, you must take extreme precautions and pay close attention to the change in brightness of the accumulated snow: where it is brighter it is harder and it is possible that there is ice.

Measures you should take to improve visibility:

When snow settles on the windshield, rear window and windows, your view of the road and surroundings will be diminished. At the same time, you will be less visible to other drivers. To compensate for reduced visibility:

- It operates the windshield wipers and, if the vehicle has one, also the rear window wiper.
- Operate the windshield washer as many times as necessary to help the snow melt. However, if the temperature is below zero, the water thrown on the windshield can freeze, forming a layer of ice on the glass and the effects that would be produced would be contrary to those expected. Therefore, it is essential to add antifreeze to the washer fluid.

- Since the windshield wipers cannot sweep the entire surface of the windshield, stop as many times as possible. as necessary to remove snow from the windshield, windows and lights.
- Even if it is at night, it is not advisable to turn on the high beams when it is snowing because they do not pass through the curtain of snowflakes, turning against you with the possibility of causing glare.
- If it is snowing and your vehicle has fog lights, turn them on.
- Sometimes, after a snowfall, the sun comes out and the strong light of the sun's rays on the snow bothers and damages eyesight. To avoid this, protect yourself by wearing glasses that prevent direct penetration of the intense light into your eyes.

The ice

Ice is very dangerous, because it makes the road extremely slippery, so you should take extreme precautions.

Ice reduces or even eliminates grip, creating a serious risk of slipping.

When and where is a road most likely to be slippery?

On cold, wet days, the shadows cast by trees on the road can hide icy parts of the road from view. Shaded parts are the first to freeze and the last to thaw and dry out.

Bridges can also disguise icy parts. Their surfaces tend to freeze much sooner than the rest of the road.

If you notice that the vehicle's steering is excessively light, as if it were floating, this is an indication that you should take into account.

You can also check that the road is icy, without risk, by braking gently while driving slowly.

Measures you should adopt to improve adhesion and prevent slipping:

What was stated above in the case of snow is equally applicable to when you must drive with ice on the road.

It should be noted that when the road is icy, **the braking distance can increase up to 10 times** above normal, so you should drive at a greater distance from the vehicle in front and reduce speed by releasing the vehicle's accelerator. and avoiding braking.

As a general rule, keep in mind that there is no element that allows driving on ice or snow in safe conditions even close to those found when driving on dry, clean pavement. However, grip can be improved with special tires, or by **driving with chains.**

The fog

This phenomenon reduces visibility. When it is very thick, it practically eliminates it. In addition, it reduces the grip of the tires when the pavement gets wet and, consequently, there is a risk of slipping just as when it starts to rain.

The fog requires calm and that you do not insist on seeing more than you can really see.

Measures you should adopt to improve visibility and adhesion:

What was stated above when referring to rain and snow can also be applied to cases of fog. In addition, it should be emphasized that if it is important to see, it is also important for you to be visible to other drivers.

- Keep your low beams on. These, when projected directly towards the ground, look bigger and better.
- It is not advisable to use high beams, because, when projected parallel on the road, the tiny droplets of water and suspended particles do not allow themselves to penetrate and reflect light like a mirror.
- If your vehicle has front fog lights, turn them on simultaneously with the low beams.
- The rear fog lights are of great importance to be visible to those driving behind, but Use them only when the fog is thick, as you could be dazzled.
- Increase your safety distance in relation to the vehicle in front. This way you will have more space to react to any braking, reduction of speed or maneuver of the person in front.
- Reduce your speed, not only to improve grip and prevent slipping, but also to primarily to be able to stop the vehicle within the area that you can see ahead.
- Do not overtake other vehicles if visibility is so reduced that it prevents you from having a good view. forward.
- Pay special attention to the demarcations. The longitudinal, central or edge lines of the road, They will help you on the path to follow.
- If driving in fog is dangerous, stopping and stopping on the road are also dangerous, because Lack of visibility can cause accidents.

The strong wind

Strong wind, especially when it blows from the side on mountain roads, is another risk for driving, as it can cause the vehicle to leave the road or overturn.

Measures you must adopt:

- **Reduce speed:** The stronger the wind, the lower the speed should be. Thus the weight of the vehicle helps it to be better supported.
- **Correct deviations to correct the trajectory:** To do this, hold the steering wheel firmly and turn it against the wind.
- **Gusts aggravate the problem:** Drive with maximum caution and attention to avoid possible detours.
- Remember that a cyclist or motorcyclist could stagger or have their path diverted due to into the wind, so if you are going to overtake or overtake you must **maintain a safe lateral distance.**

CHAPTER

8

Efficient driving

Efficient driving

In this chapter we want to give you the necessary tools to reduce the fuel consumption you use while driving. The importance of this lies in the fact that, by improving your driving habits, you will achieve benefits both for yourself and for the environment and benefits for safety on the country's streets and highways. In addition, you will provide security to other road users.

What do we mean by efficient driving?

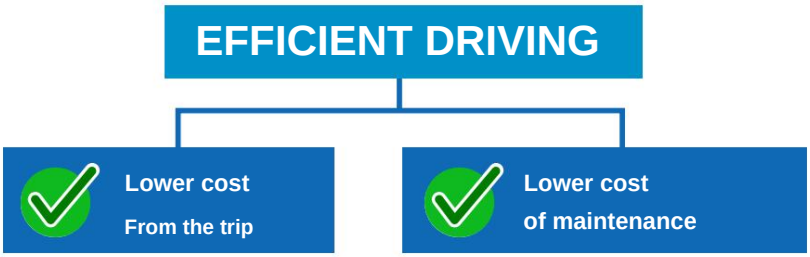
We use the concept of Efficient Driving to refer to an attitude and type of driving that will allow you to obtain **greater energy performance in your vehicle.**

The information contained in this chapter has the essential objective of helping you create habits that allow you to continuously improve your driving, as well as attend to some basic aspects of vehicle maintenance, which will ultimately influence the reduction of fuel consumption. .

Various studies carried out by the Chilean Energy Efficiency Agency (AChEE) have shown that applying Efficient Driving techniques allows fuel consumption to be reduced by between 10 and 15%.

How does Efficient Driving affect consumption?

The benefits of Efficient Driving are mainly manifested in lower travel costs and lower vehicle maintenance costs.



Likewise, the way you drive is essential in the reduction of various atmospheric pollutants, including carbon dioxide, one of the main causes of the greenhouse effect, a phenomenon that consists of the retention of heat as a result of the accumulation of gases in the atmosphere.

Below you will see some techniques to be an efficient driver. Not all of them are applied while you are driving, but also before getting into the vehicle. Therefore, the tips that apply before leaving and during your journey are presented.

Recommendations before leaving your trip

An efficient driver is not only concerned with how he drives, but also with other aspects prior to driving itself, which will directly influence the final fuel consumption of each trip. Here are some recommendations before you leave.

Plan your tour

The first thing you should consider to have efficient driving is to plan the route and leave in time. You may not be aware of the existence of shorter routes to reach the same destination. That is why we recommend that you review the map beforehand in order to identify and opt for alternatives that shorten your journey. This way you will avoid traveling extra kilometers that force you to use more fuel than necessary.

If you look for the least congested routes and avoid, as much as possible, peak traffic hours, you will be able to reduce your fuel consumption as well as the time it takes to travel. This means spending less time with the engine on, consuming fuel. In addition, a route with low congestion will allow you to maintain a constant speed and, therefore, obtain better performance.

We recommend that you prepare in advance the things you will do or those you will need, such as, for example, combining several procedures in the same trip, this way you will avoid unnecessary trips, reducing the times you take your vehicle out on the street. Energy efficiency is not doing less, but doing the same but spending less. Why make two trips, if you can do all the procedures in one?

> **Planning your trip in advance allows you to obtain greater performance from your vehicle, in addition to reducing the stress and fatigue associated w**

If you have a GPS or your cell phone has one, use it to plan the route **before the trip.**
There are GPS systems and applications for mobile phones that also provide directions while you drive to make it even easier to follow the desired route. **Remember not to manipulate your phone while you are driving,** listen to the GPS indications through the audio of each application.

Prepare your vehicle for the trip

More force is needed to move a larger load than to move a small one. In the same way, the more load or weight the vehicle has, the more force it will require to move it. This force is obtained thanks to the energy contained in the fuel.

Thus, **the greater the weight of the vehicle, the greater the fuel consumption.** Make sure you do not have excessively heavy objects for the trip, such as tool boxes or roof racks, when they are not really necessary. Store them in another place where they do not involve a waste of energy.

The **more load** there is on the vehicle, **the greater the force** that must be used to move it.	With **less load,** less effort is required . In the vehicle, this translates into less fuel consumption.
	

Take care of the aerodynamics

Roof racks and roof racks have another additional effect that increases fuel consumption. Especially at high speeds, aerodynamic resistance occurs, which has to do with the opposition of the air to the movement of the vehicle. If you have a luggage rack or luggage on the roof, consumption can increase by over 20% on the road4 .

Check tire air pressure regularly

When the tire has less air than necessary, it requires more work to move the vehicle. Imagine what it means to ride a bicycle with a flat tire, it requires much more effort on your part. In the case of the vehicle, it requires much more fuel.

It is necessary to check your tire pressure regularly, at the frequency described by the manufacturer in the vehicle manual, or at least every two weeks. The pressure to use can also be found on the frame of one of the doors, usually that of the person driving. This review should also be carried out before starting a long trip such as on vacation or other trips out of the city.

It is estimated that a 5 PSI reduction in the optimal air level in tires can increase fuel consumption by 3%5 .

(4 and 5) Source: IDAE, Institute for Energy Diversification and Saving.

Benefits of good maintenance

As noted in the **Automobile Operation** section of **the Driving Principles** chapter , good maintenance will allow you to drive your vehicle safely and will also allow you to increase the useful life of its various components, as well as maintain good fuel efficiency, and greater vehicle availability.

maintenance of your vehicle

- **Allows you to drive safely.**
- **You increase the useful life of its components.**
- **You maintain good fuel efficiency.**
- **Greater vehicle availability.**

In addition to tires, there are other key elements to maintain good performance. A fuel filter in poor condition can increase consumption by 0.5%, because the pump must use more force to deliver it to the engine. Eventually, there will not be the necessary amount of fuel when the engine is required to accelerate. The above could generate incomplete combustion, that is, one in which the total available energy is not used.

A dirty air filter can affect performance by 1.5%, since there is not enough air available, or because it is contaminated, the fuel cannot be used 100%. There is an optimal proportion of air and fuel that allows maximum energy to be extracted from the latter during combustion. If this is not met due to not having enough air, part of the energy resource will not be used.

Recommendations to apply during your journey

An efficient driver is one capable of applying certain basic techniques while driving. Due to a matter of habit, it will surely not be possible for you to put into practice all the advice contained in this chapter immediately. For this reason, we recommend that you apply the following techniques gradually and as they become natural to you, they will become a habit.

Start the engine without stepping on the accelerator

When you start the engine, prefer not to step on the accelerator, as such an action only causes an increase in consumption. Modern vehicles are equipped with an electronic system that allows regulating the delivery and injection of fuel to the engine.

Accelerate smoothly

Avoid accelerating fully. Full acceleration generates excessive fuel consumption. A driver who usually accelerates fully will have a much greater energy expenditure than one who does so gradually.

Optimal speed

Although speed limits of 90, 100 or even 120 km/h are allowed on highways, it must be taken into account that at high speeds fuel efficiency is greatly reduced, on the order of 10% or more.
Of course, if you travel long distances, driving at the maximum speed allowed could be justified. But in case of distances less than 100 km, the time gain is quite low. We invite you to see how much time your trip is reduced by increasing your speed by 10 km/h in the table in the **Meetings and Overtaking** section of the **Traffic Rules** chapter (see page 100). Will it be worth increasing consumption so much for just a few minutes?

Avoid straining the engine

An engine required at higher revolutions will have greater fuel consumption. That is why it is recommended to keep the revolutions in relatively low ranges. This is achieved by trying to maintain higher gears or changes while driving (3rd, 4th or higher). For example, to travel at 70 km/h, although it can be done in 4th or 5th gear, it prefers the highest gear (in this case, 5th), where the highest performance is achieved.

This advice is only applicable if the vehicle you drive has a manual gearbox. In the case of an automatic gearbox, if full acceleration is avoided, the vehicle generally selects the highest possible gear.

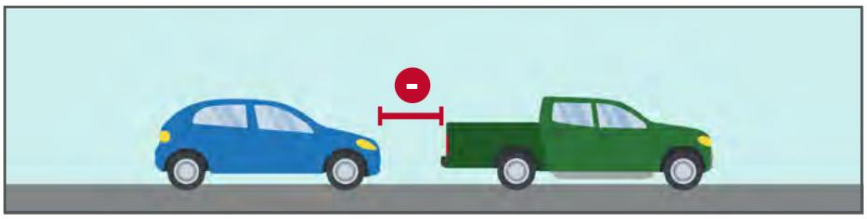
On the contrary, if you get used to pressing the accelerator fully, the vehicle can select lower gears to increase power, which ultimately increases consumption.

Lower gears have higher fuel consumption.

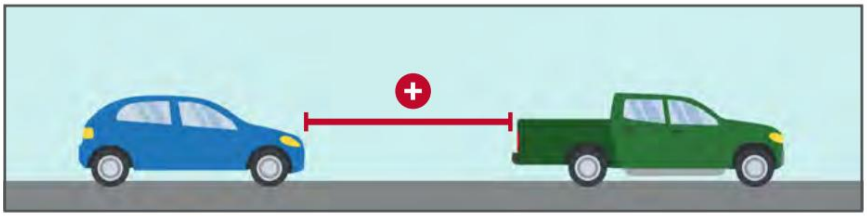
Higher gears will have better performance since the engine works at lower RPM.

Keep a safe distance

To determine the necessary distance from the vehicle in front of you on the road, you should not only consider the stopping distance seen in the section **Energy and the laws of physics** (page 23). Additionally, you should keep in mind that by maintaining a sufficient distance, you will avoid constantly braking and accelerating. This last practice entails a repeated demand for engine power, generating greater fuel consumption. That is why to maintain good performance, it is necessary to maintain a safe distance.



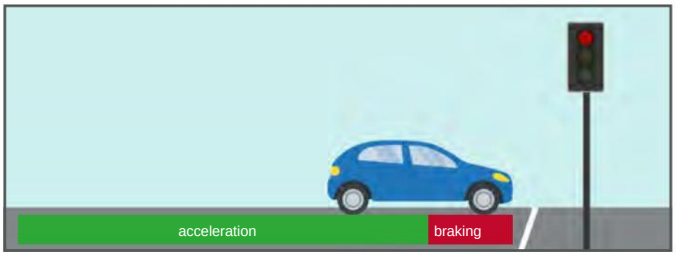
Maintaining **a short distance** from the vehicle in front forces you to brake and accelerate repeatedly, increasing fuel consumption and wear and tear on your vehicle.



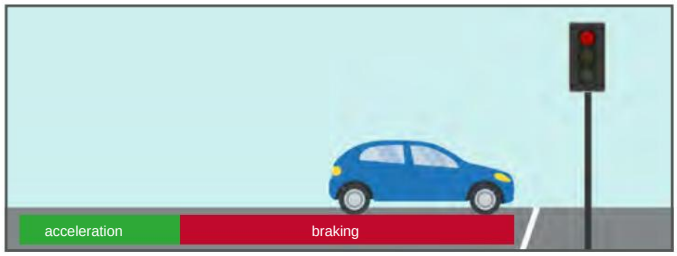
A **greater distance** allows you to brake early, or even avoid doing so on some occasions, simply holding the vehicle by releasing the accelerator, and with the gear engaged.

So what would be a safe distance? This must be analyzed considering your driving speed, the level of traffic, the weight transported and the braking capacity of your vehicle, which will in turn depend on the condition of the tires, brakes and road. This may be equal to or greater than the distance suggested in the **Traffic Rules** section of the **Traffic Rules** chapter (page 87).

Avoid last minute braking



If **you brake at the last minute,** in addition to exposing yourself to accidents, you will lose the opportunity to save and you will not gain any time.



If **you program your braking** before an imminent stop, you will reduce the chances of an accident and save fuel during a good part of the maneuver. Remember that once you resume your journey, you should accelerate gently.

In order to reduce energy consumption, it is recommended to brake early whenever possible.
This will reduce the time you unnecessarily keep your foot on the accelerator.

If you see a red light or a STOP sign, you can gradually reduce your speed with the help of the gearbox. In the first instance you must keep the gear engaged (without pressing the clutch or going to the neutral position), and then reduce gears one by one if you require faster braking.

Reducing speed while maintaining a engaged gear cuts off fuel injection, so your final consumption on the trip will be lower if you adopt it as a practice. Furthermore, the capacity of

vehicle braking, as seen in the **Energy and Physical Laws** section of **the Driving Principles** chapter (page 23).

If you stop for more than a minute, turn off the engine

Did you know that it is cheaper to turn off your vehicle's engine if you are stopping for more than 1 minute?

It is common for long and unexpected detentions to occur during the trip. A flagger (signaler) or an accident requires stopping for longer than usual. On these occasions and, as a general rule, at any stoppage longer than one minute, it is more economical to turn off the engine and restart it later. The red traffic lights generally last less than a minute, so in this case it is not advisable to turn off the engine.

Overtaking and emergency situations

In these situations, safety must take precedence over economics, that is, some Efficient Driving tips can be ignored to avoid putting travel safety at risk. It is only recommended to overtake when you have a sufficient distance to not stress the engine and do not put your own safety or that of third parties at risk.

Now, as mentioned in the chapter **The person in traffic** (page 37), being under a lot of stress constitutes an important risk factor, and it can also become a cause of excessive fuel consumption. Therefore, the recommendation to avoid driving under severe stress conditions is reiterated.

Security

It is no coincidence that the principles of safe driving result in Efficient Driving that reduces energy consumption. What's more, safe driving is the basis for Efficient Driving, which includes principles and techniques that, along with safeguarding personal and third-party safety, tend to the correct use and operation of the vehicle, which implies a reduction in the consumption.

Below we present a summary of the principles that promote safety and efficiency:

- **Pay attention to the conditions surrounding the driver:** it will allow you to react appropriately and avoid accidents. Likewise, braking with sufficient advance notice and proper use of the gearbox reduce fuel consumption.

- **Overtaking:** you must be completely sure that you have the necessary distance for the maneuver.
This will avoid raising the RPM of the vehicle too much, generating excessive consumption.

- **Minimum distance with the vehicle in front:** refers to the stopping distance necessary to
not to collide, in addition to avoiding constantly braking and accelerating, which would generate greater consumption.

- **State of health, stress and fatigue:** driving with little attention is a risk factor because it affects erratic behavior, such as a delay in changing gears, braking with the wrong technique, among others. States of frustration and/or stress turn the driver into a potential aggressive person, who, by becoming more risky, ignores Efficient Driving techniques, incurring greater fuel consumption and putting both his or her safety and that of the rest of the people at risk. road users.

All the tips seen in this chapter will help you increase safety on your trips, take better care of your vehicle and reduce fuel consumption, benefiting not only you but also the environment.

A joint effort by everyone is necessary to reduce the consumption of energy resources at the national level, as well as the levels of air pollution. You can be a key part in this effort to have a cleaner and more efficient Chile.

If you want to learn more about efficient driving, go to www.conduccioneficiente.cl

Important information

Important information

How to behave in the event of an accident

What does the law say about it? Any person, whether at fault or not, who participates in a traffic accident in which people are injured and/or killed is obliged to stop, provide whatever help is possible and report to the nearest police authority.

Failure to comply with the above will be punished, depending on the damage and injuries caused, with fines, license suspension or perpetual inability to drive vehicles and effective prison sentences.

Fleeing and not notifying the police authority is a crime that can be punished even with a lifetime inability to drive vehicles and effective prison sentences of at least one year.

IN THE EVENT OF AN ACCIDENT YOU SHOULD:

Stop your march

Provide whatever help is possible to the affected person(s)

Report the fact to the authority

When stopping to help, be aware that collisions and subsequent fires are both a threat. Therefore, if possible, warn other people of the danger with your hazard warning lights and reflective devices. Turn off your vehicle's engine and identify if the vehicles involved are electric or hybrid. You will know this through the distinctive sticker that each one must have on their rear window. If it is them, **you should never handle them if you do not have training and, under no circumstances, should you touch the high voltage line that is located inside the vehicle** and is internationally denoted by an orange insulating material.

If the vehicles involved are entirely combustion-powered, you should make sure to turn off their engines. Do not smoke or allow other people to smoke.

Panic, which frequently occurs in cases of accidents, can be very negative. Try to remain calm and make sure to **call the SAMU/ ambulance (131), Firefighters (132) and Carabineros (133)** as soon as possible and follow the instructions that the specialists give you; Specify the location of the accident as accurately as you can and the number of vehicles and victims.

Below are the recommended procedures so that, if you are the first person to arrive at the scene of an accident, you can help ensure that the situation does not worsen and that first aid procedures are initiated as quickly as possible.

First Aid

Regardless of what people look like, avoid moving and transferring them from the place without proper authorization from the health team, unless the scenario imposes imminent danger to the lives of the injured people or the person providing first aid, for example. For example, a really threatening danger of fire or explosion, or that they could be run over on the road.

If the affected person is a motorcyclist or cyclist with a helmet, you should never remove it, as doing so could cause an injury to the cervical spine.

Due to the severity of the injuries, the injured person could be in shock. Providing basic appropriate treatment measures, such as stopping bleeding and providing shelter, could mitigate its effects and even save your life. Do not abandon the victim, unless it is to request help and under no circumstances give them anything to eat or drink.

If there is an injured person, it is necessary to take hierarchical and orderly measures to be able to provide first aid and save the person's life. Below is the order of actions you should take to provide first aid to an injured person. These are known by the following acronym XABCDE and correspond to:

X: Control of serious bleeding

If you observe that a large amount of blood comes out of one of the person's wounds, using a clean material, such as a cloth, apply direct and firm pressure on the wound. If this wound is in the upper or lower extremities and it is not possible to contain the bleeding with direct pressure, apply a tourniquet in the most upper area of said extremity possible.

A: Open the airway

If the person does not respond to stimuli, it is likely that the tongue will fall towards the back of the mouth and obstruct the normal passage of air.
In this case, you must open the airway to clear it using the forehead-chin maneuver. To do it you must put one hand on your forehead and the other on your chin, raising it, as shown in the following photo.

B: Good ventilation

You must verify if the victim is breathing or not, for this you must observe the person's chest if it rises when breathing. If it does not rise and you have training, you can administer mouth-to-mouth ventilations at a frequency of 1 every 6 seconds.

C: Circulation

At this stage you should check how the person's blood circulation is looking to see if the skin is pale, sweaty and cold. In addition, you must contain small bleeding, using direct pressure with clean dressings or cloths and bandages.

D: Deficit of consciousness

A: Alert
V: Response to voice
D: Painful stimuli
I: Unconscious

In this phase you must evaluate if the person is A: alert, V: responds to voice, D: responds to painful stimuli and in the scenario that does not respond to any of the stimuli just mentioned, is I: unconscious.

E: Exhibition

At this stage, the presence of lesions that may be covered, for example, by clothing, is checked. If you do not have adequate training, do not remove the person's clothing and focus mainly on finding blankets or blankets to shelter the injured person while waiting for the arrival of a team that can provide health care.

Accident with vehicle transporting dangerous loads

Many trucks transport dangerous loads on our roads: explosive, flammable, corrosive, among others. Vehicles that carry this type of loads must carry special signs or labels, such as those shown below, as an example:

In the event of a traffic accident involving a truck that bears signs such as those indicated above, you must be extremely cautious. Stay a safe distance from it and in a location so that the wind does not blow from the vehicle involved towards you; Do not light a flame or smoke, nor allow other people to do so, and help warn of danger.

Take note of the hazardous material involved before calling emergency services.

Provisions applicable to vehicles

Motorized vehicles cannot circulate without their license plate, the circulation permit granted by the respective Municipality and the certificate of Mandatory Personal Accident Insurance. Failure to comply with these obligations is cause for the vehicle to be removed from circulation by Carabineros or Municipal Inspectors, leaving it at the disposal of the corresponding Local Police Court.

Likewise, the vehicles must carry the certificate of their technical inspection or approval, which must always be current.

Unique patent

Unique Patent Plates (PPU) are granted by the Civil Registry and Identification Service, which maintains the National Registry of Motor Vehicles, which contains the history of the vehicle and its owner. Thus, every time a person purchases a vehicle they must request its registration in their name in the indicated registry. In this, liens, prohibitions, seizures and precautionary measures that affect vehicles can also be registered.

The **Zero Day Patent Law,** in force since February 2023, requires that every new motor vehicle that is marketed in the country must be delivered by the marketers with their Unique Patent Plates installed.

Circulation permit

The circulation permit corresponds to a tax that must be paid annually for the vehicle to the Municipality. To obtain this permit, vehicles must have a current technical inspection and be covered by Mandatory Personal Accident Insurance (SOAP).

Mandatory Insurance - SOAP

Mandatory insurance covers the risks of death and bodily injury suffered by the driver of the vehicle, the people transported in it or any affected third party, regardless of who is at fault in the event of a traffic accident caused by a motor vehicle.

The insurance must be obtained annually, which must be accredited to the Municipality at the time of paying for the vehicle's circulation permit, with the insurance policy certificate issued by the insurance company.

Technical review

The technical inspection is like the medical examination of your vehicle. It includes, among others, a check of the steering, brakes, lights, tires and internal combustion systems.

Considering that, unless they are new vehicles, circulation permits must be paid during specific months according to their different types (March, in the case of private cars and motorcycles). In order that the establishments authorized to carry out technical inspections are not over-demanded in the periods prior to those in which the circulation permits must be paid, a calendar has been established, according to the last digit of the license plate, so that carry out technical reviews. You should always verify this information at www.prt.cl.

last digit of the unique patent	month in which it corresponds practice review*
9	January
0	February
1	April
2	May
3	June
4	July
5	August
6	September
7	October
8	November

* However, the technical review can also be carried out in the month preceding the month indicated in the table.

In the case of new vehicles, they must have their Individual Homologation Certificate, which is a document issued by the Ministry of Transport and Telecommunications, through the Vehicle Control and Certification Center, 3CV, which certifies that the vehicle complies with the emissions and safety standards in force in the country.

Responsibility of the driver

The driver's responsibility is not limited to keeping his or her vehicle in good condition and knowing and complying with traffic rules. Circulating in your vehicle is equivalent to using a comfortable means of transportation simultaneously with countless other users, so respect, consideration and solidarity are essential parts of Road Coexistence.

Think about just two situations: since when you walk you are a pedestrian, why then should you not give way to other pedestrians when you are behind the wheel of your vehicle? On the other hand, although the material damage caused by a crash can be corrected, how can you face the fact that you can

be the person causing serious injuries or even the death of another person? How do you overcome the psychological damage and fears that you or your family members will deal with later?

The act of moving from one point to another should not be transformed into a constant feeling of fear due to attacks from other drivers, nor can it be a constant attitude of aggression towards others. Although traffic rules will not specifically tell you how to solve coexistence on the roads from a human point of view, they will give you the frame of reference within which you can act.

As a driver you have the obligation to always carry your Driver's License, the document that authorizes you to use a vehicle. In the event that this has been withheld, in its replacement you can show a provisional permit granted by the Courts or a summons to the Court.

No Chat Law

The No Chat Law prohibits driving a vehicle (including cycles) while manipulating a mobile phone device or any other electronic or digital device that is not factory incorporated into it. This includes actions such as phone calls, sending messages, manipulating a GPS, etc.

The regulations detail:

- You cannot manipulate, that is, operate with one or both hands, a cell phone or one of the aforementioned devices, even at times when the person driving is waiting at a red light, at a traffic jam, at a stop. “STOP” sign, etc.

- If the device is not factory incorporated into the vehicle, its manipulation is authorized.
only through hands-free equipment.
- To use georeferencing or other applications, the driver must program the route in the application before starting the trip, with the vehicle parked in a safe place. During the journey you can receive instructions via audio.

Let's review what “hands-free” use means:

The hands-free system is one that allows you to use your device or device with the possibility of keeping both hands on the steering wheel of the vehicle, without neglecting driving.

The regulations of the No Chat Law establish that **the following devices are not “hands-free”:**

- Any system for holding devices or artifacts at the height of the driver's ear.
- Those systems that require the driver to hold them with their shoulder for use,
against your head or other parts of your body, such as held on your legs or on your wrist.
- Solutions where the driver must manipulate with one or both hands, either to hold a conversation, send messages or audios or use applications on said devices or artifacts.

Remember! It is your duty to drive with full attention to traffic conditions. Avoid distractions that hinder your senses of vision and hearing. If you receive a call that you need to answer and you don't have your hands free, you should find a safe place to stop and answer it.

Companion of a 17-year-old driver

Exceptionally, a 17-year-old person can obtain a Class B License as long as they have authorization from their mother, father, guardians or legal representatives, and have passed a course at a Driving School.

Until the person turns 18, they must always drive accompanied, in the front seat, by a driver who is in a position to replace them in driving. This person must have a Driver's License that enables them to drive the types of vehicles authorized for Class B that are not less than 5 years old.

Driver's License Restriction

You should know that your Driver's License may be restricted by the Traffic Department in different aspects such as: schedule, circulation area, adapted vehicle and use of glasses or hearing aids, among others. These restrictions must be followed at all times while driving. For example, if the doctor ordered the use of glasses, you cannot drive without them.

Suspension and cancellation of Driver's License

Without prejudice to the fines that may be applied for the commission of infractions, the Driver's License is suspended when its holder is caught driving under the following situations:

infringement	license suspension
Driving under the influence of alcohol.	3 months*
Drunk driving.	2 years*
Under the influence of narcotic or psychotropic substances.	
Exceeding a maximum speed limit by more than 60 km/h.	6 months*
Exceeding a maximum speed limit by more than 20 km/h.	Between 5 and 45 days*
Do not stop at a red traffic light or at a STOP sign.	
Carry children under 12 years of age in the front seats.	
Do not use a Child Restraint System when transporting girls and boys up to 8 years old, inclusive, or 135 centimeters tall and weighing 33 kilograms, in the rear seats.	
Driving a vehicle while manipulating a mobile phone device or any other electronic or digital device that is not built into it at the factory, except if the action is carried out through a hands-free system.	

* These periods are increased in the event of a repeat offense or if an accident occurs and people are left with less serious injuries, serious injuries or deaths, and may even be disqualified from driving for life.

Similarly, a license is suspended for the accumulation of two very serious or serious violations in a twelve-month period.

The following are very serious infractions or contraventions:

- Do not stop at the red light of the traffic lights, or at the “STOP” sign.
- Driving a motorized vehicle or animal traction without having obtained a Driver's License.
- The transportation of minors under 12 years of age in the front seats of the vehicle.
- Do not use the Child Restraint System for boys and girls up to 8 years old, inclusive, or for those 135 centimeters tall and weighing 33 kilograms.
- Driving a vehicle while manipulating a mobile phone device or any other electronic or digital device that is not factory incorporated into it, except if the action is carried out through a hands-free system, in accordance with the specifications determined by the regulations.
- Driving a vehicle without a unique license plate.
- Driving a vehicle with the license plate hidden or that uses objects, accessories, lights or attachments that hinder its full perception, or if the license plate is in poor condition and makes identification of the vehicle difficult.
- Exceeding the maximum speed limit between 20 and 60 kilometers per hour.

Some serious violations:

- Driving a vehicle in poor physical or mental conditions.
- Exceeding the maximum speed limit by 11 to 20 km/h.
- Driving a vehicle with a license other than the corresponding one; If the vehicle requires a professional license to drive, the offense is even more serious.
- Passing or overtaking another vehicle on a bridge, viaduct, tunnel or railway crossing, or the approach
Go to these places, at a minimum distance of 200 meters.
- Overtaking on the shoulder, and overtaking or overtaking at a pedestrian crossing, or at an unregulated crossing.
- Passing or overtaking another vehicle when approaching the top of a hill or gradient, or a curve.
- Driving without wearing a seat belt, or without other passengers wearing it, should do so.
- Disobeying the signals or orders of the Carabineros or those of a tax inspector in the procedures
of inspection.
- Failure to respect the signs and signals that govern traffic, with the exception of the STOP sign and the traffic lights.
a traffic light. Remember that the latter correspond to very serious infractions.
- Driving against the direction of traffic.
- Drive on the left of the road axis of a road with traffic in both directions, unless overtaking is being carried out in accordance with the rules that regulate the performance of this maneuver.
- Parking or stopping a vehicle within an intersection, on a bridge, tunnel, elevated structure, underpass or overpass, on a slope or on a curve in the road.

- Parking or stopping on the carriageway or shoulder of a road with 2 or more traffic lanes in each direction.
- Failure to respect the preferential right of way of a pedestrian or other driver.
- Turn incorrectly.
- Driving a vehicle with its steering or braking system in poor condition.
- Driving a vehicle without lights during the required hours and circumstances.
- Driving a vehicle with one or more tires in poor condition.
- Traveling in an urban area with restrictions due to environmental pollution.
- Do not dim the headlights on the road when facing or approaching another vehicle from behind.
- Do not stop the vehicle before crossing a railway line.
- Not carrying a valid Mandatory Personal Accident Insurance certificate or driving license.
- Violate the regulations on the emission of pollutants.
- Driving without a technical inspection, approval certificate or current pollutant emission certificate.
- Driving a vehicle without the unique license plate permanently engraved on its windows and lateral mirrors.

In addition to the infractions classified as serious, there are others that are in the **less serious categories,** some examples are:

- Parking or stopping a vehicle in prohibited places in cases that are not classified as a very serious infraction or contravention.
- Drive in reverse, except for legal exceptions.
- Driving a vehicle improperly using the lights, with lights or bulbs other than or additional to those permitted by the Traffic Law or its regulations.
- Violating the rules of conduct when an emergency vehicle approaches that uses their audible and visual signals.
- Do not signal before turning.
- U-turning in cases where this is prohibited.
- Deteriorate or alter any traffic sign.
- Failure to renew the Driver's License within the legal period.
- Violating the obligation to report to the Registry of Motor Vehicles all alterations to vehicles that cause them to change their nature, their essential characteristics, or that identify them, as well as their abandonment, destruction or total or partial disassembly.
- Do not drive within the marked traffic lane or suddenly change lanes, obstructing the circulation of other vehicles.
- Driving a vehicle whose cargo or passengers obstruct the driver's view of the front, rear or sides, or prevent control over the steering, braking and safety systems.

- Exceeding the maximum speed limit by up to 10 kilometers per hour.

All other transgressions of the Traffic Law that are not indicated as very serious, serious or less serious are minor infractions or contraventions.

Furthermore, it is important that you know that the Traffic Law contemplates crimes that can be punished with prison. For example, anyone who drives with a false license, obtained fraudulently or belonging to another person, the person who drives with a false license plate, adulterated or that corresponds to another vehicle, the person who presents false certificates to obtain Driver's License, the person who drives while intoxicated or under the influence of narcotic or psychotropic substances, among others.

The infractions and sanctions mentioned above are just some examples. For this reason, it is your responsibility to be aware of all those facts that constitute violations and the sanctions that can be applied in each case, which can even lead to the cancellation of the Driver's License. To do this, it is important that you know the Traffic Law.

Recommendations for hard braking

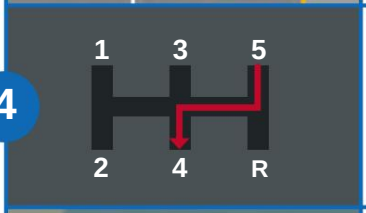
Strong braking can be caused by a sudden reduction in the speed of the vehicle in front of you, by the presence of a pedestrian who crosses the road recklessly or due to other eventualities.

The braking technique depends on whether the vehicle has ABS brakes.

brakes without abs	brakes with abs
■ You must vigorously depress the brake pedal, progressively reducing the force as the speed decreases. ■ If the wheels lock, you should slightly reduce the pressure on the pedal until the wheels stop slipping and you regain the grip of your tires on the pavement.	■ You must press the brake pedal vigorously, maintaining maximum pressure until the end. ■ The ABS system will automatically release locking wheels, allowing you to control the steering. ■ When the ABS system operates, a slight tremor occurs in the brake pedal. You shouldn't be scared when you notice it.
In both cases it is advisable to press the clutch before the vehicle comes to a complete stop. This will prevent the engine from stopping when the revolutions are very low.	

It is always best to avoid hard braking, maintaining an adequate safety distance and always driving with a preventive attitude.

If you are driving your vehicle and suffer a total brake failure, that is, when you press the brake it goes to the bottom without offering any resistance, you can perform one of the maneuvers recommended below. These should be used progressively, that is, if the desired effect does not arise with the first, then move on to the second, and so on.

What you should do in the event of a total brake failure	
1 	Press and release the pedal several times. If there is air in the brake system, with this maneuver it works again.
2 	If you suspect overheating of the brake system (for example if you are going down a long slope and have braked repeatedly), release the pedal and allow the system to ventilate. In parallel, reduce your vehicle to lower gears to brake it with the engine.
3 	Drive as close as possible to the right side of the road.
4 	Release the accelerator and reduce to lower gears as soon as possible, this way the engine will brake your vehicle.
5 	You can use the handbrake, always gently and progressively.
6 	If none of the above works, look for an emergency clue. There you can stop your vehicle safely.
7 	If you are faced with imminent danger, you can try to graze the vehicle against a hill edge, bushes, the roadside or a road barrier. You must first cut off the contact and hold the steering wheel firmly.

Traffic and environment

Another externality of transportation, in addition to traffic accidents, is its contribution to air pollution. Indeed, motor vehicles are responsible for the emission of the following pollutants:

Carbon oxide: Influences the cardiac and vascular system. The first sign of poisoning is vomiting and headache.

Carbon dioxide: Contributes to the greenhouse effect.

Hydrocarbons: They include many substances that have harmful effects on the health of people and the environment. These also form photochemical oxidants that can cause damage to forests and crops. Some hydrocarbons are carcinogenic.

Nitric oxides: Irritant to the mucous membranes and respiratory system. Virtually all nitric oxides contribute to acidification, forest damage and pollution of the seas.

Lead: It is a heavy metal that causes damage to the central nervous system.

Sulfur dioxide: Irritates mucous membranes and causes allergies in high concentrations. Contributes to acidification.

Exhaust gases destroy our environment and are harmful to health.

The way you drive has great importance in gas emissions. High speeds cause high emissions and also fuel consumption. At low speeds, it is the sudden changes when driving that have the most influence. Vigorous acceleration also increases emissions; Idling the engine also causes unnecessary emissions that must be avoided.

You should know that if your vehicle is emitting very black smoke from the exhaust pipe, it is likely that the air filter is dirty.

How to positively contribute to the environment when driving:

- Accelerating gently.
- Taking advantage of the speed of the car, letting it roll more.
- Not braking unnecessarily.
- Slowing down, avoiding sudden accelerations.
- Driving smoothly.
- Avoiding keeping the engine idling.
- Keeping the engine well tuned.

- Not overloading the vehicle.
- Avoiding congested roads.
- Choose to drive hybrid or electric vehicles.

Driving an electric vehicle

When using this type of vehicle, you must consider:

- Make sure that your vehicle has the “Electric Vehicle” or “Hybrid Vehicle” label as appropriate, plus an icon that identifies it (see reference image).

- We recommend that before starting each trip, you check the available battery power or the available range to make a charging plan during the trip, this way you will prevent your vehicle from running out of power during the trip. **Always remember to plan your trip!**

- Always carry the travel cable in electric vehicles, except hybrid electric vehicles without external charging.
- Always dispose of the charger correctly so that the cable is not exposed. since a vehicle steps on it and damages it.
- If you need a trailer or a tow truck, you must make sure to follow the procedure according to your vehicle model. You can review this on the website: www.sec.cl/electromovilidad, in the section “Electric Vehicle High Voltage System Diagram (emergency services)”.

“Electric Vehicle” and “Hybrid Vehicle” Labels.

EXHIBIT 1

Vertical traffic signs

Vertical traffic signs

Below we present more examples of vertical signs. If you want to know all of these, we invite you to consult them in the Traffic Signaling Manual of CONASET.

Regulatory Signs

Their purpose is to notify road users of the priorities in their use, as well as existing prohibitions, restrictions, obligations and authorizations. Its violation constitutes a violation of traffic regulations.

STOP

YIELD

STOP CHILDREN

DO NOT ENTER

DO NOT TURN LEFT

DO NOT TURN RIGHT

DO NOT U-TURN

DO NOT PASS

DO NOT CHANGE ON TRACK

PREFERENCE CYCLISTS WHEN TURNING RIGHT

PREFERENCE CYCLISTS WHEN TURNING LEFT

PREFERENCE CYCLISTS CHANGE TRACK

PREFERENCE CYCLISTS CHANGE TRACK

PROHIBITED CIRCULATION VEHICULAR LOADING

PROHIBITED CIRCULATION VEHICULAR MOTORIZED

PROHIBITED CIRCULATION OF CARS HAND

PROHIBITED CIRCULATION OF BUSES

PROHIBITED CIRCULATION OF BICYCLES

PROHIBITED CIRCULATION OF MOTORCYCLES

PROHIBITED CIRCULATION OF MACHINERY AGRICULTURAL

PROHIBITED CIRCULATION OF VEHICLES ANIMAL TRACTION

SILENCE

DO NOT BLOCK CROSSING

FORBIDDEN PARK AND STOP

FORBIDDEN PARK

FORBIDDEN PARK

NO PEDESTRIANS

SPEED MAXIMUM

SPEED MINIMUM

SPEED MAXIMUM ZONE 30

LONG MAXIMUM

MAXIMUM WEIGHT PERMITTED

MAXIMUM WEIGHT BY AXIS

HEIGHT MAXIMUM

BROAD MAXIMUM

END PROHIBITION OR RESTRICTION

ONLY TELEVISION OR SYSTEM COMPLEMENTARY

TRANSIT IN A JUST SENSE

TRANSIT IN BOTH SENSES

TRANSIT PEDESTRIAN

TRANSIT OF PEDESTRIANS

KEEP YOUR RIGHT

HEAVY VEHICLE KEEP YOUR RIGHT

ADDRESS MANDATORY

PREFERENCE TO SENSE CONTRARY

CIRCULATION IN BOTH SENSES

MINI ROTOUNDLAND

MANDATORY STEP RIGHT

MANDATORY STEP LEFT

VERTEX STEP

CONTROL

MUST USAGE OF CHAINS

LIGHTS ON

ONLY MOTORCYCLES

SEGREGATED ROUTE BUSES

SEGREGATED ROUTE BUSES

TRANSPORTATION ONLY PUBLIC

SURFACE SEGREGATED MOTORIZED - CYCLES

SURFACE SEGREGATED PEDESTRIANS-CYCLES

RESERVED

TURN ALLOWED RIGHT WITH RED LIGHT

TURN ALLOWED LEFT WITH RED LIGHT

Warning signs of danger

Its purpose is to warn road users of the existence and nature of risks and/or unforeseen situations present on the road or in its adjacent areas, whether permanently or temporarily.
They are also usually called **Preventive Signs.**

CURVE TO THE RIGHT

CURVE TO THE LEFT

CLOSED CURVE A THE RIGHT

CLOSED CURVE A THE LEFT

ZONE OF CURVES ON THE RIGHT

ZONE OF CURVES ON THE LEFT

CURVE AND COUNTERCURVE A THE RIGHT

CURVE AND COUNTERCURVE A THE LEFT

CURVE AND COUNTERCURVE CLOSED TO THE RIGHT

CURVE AND COUNTERCURVE CLOSED TO THE LEFT

HAIRPIN CURVE ON THE RIGHT

HAIRPIN CURVE ON THE LEFT

STRONG SLOPE DOWNHILL

STRONG SLOPE DOWNHILL

PROXIMITY TUNNEL

STRONG SLOPE ON THE RISE

STRONG SLOPE ON THE RISE

RIBERA WITHOUT PROTECTION

AIRPORT OR AERODROME

SIDE WIND

NARROWING
ON BOTH SIDES

NARROWING
ON THE RIGHT

NARROWING
ON THE LEFT

NARROW BRIDGE

WIDENING
ON BOTH SIDES

WIDENING
ON THE RIGHT

WIDENING
ON THE LEFT

MAXIMUM WEIGHT

MAXIMUM HEIGHT

MAXIMUM WIDTH

LONG MAXIMUM

START OF
MEDIAN

PROXIMITY OF
HIGH CABLES
STRAIN

PROJECTION

LOCATION
PROJECTION

HIGHLIGHTS
SUCCESSIVE

BADEN

PROJECTION
GRAVEL

ZONE OF
AVALANCHE

DANGER

BARRIERS

END SIGNAL
MEDIAN

RAILWAY CROSSING
AT LEVEL WITHOUT
BARRIERS

RAILWAY CROSSING
AT LEVEL WITH
BARRIERS

CROSSING
SAINT ANDREW

PROXIMITY
ROUNDABOUT

CROSSINGS
FORKS AND CONVERGENCES

CROSSINGS
FORKS AND CONVERGENCES

CROSSINGS
FORKS AND CONVERGENCES

CROSSINGS
FORKS AND CONVERGENCES

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FORKS AND CONVERGENCES

CROSSINGS
FORKS AND CONVERGENCES

CROSSINGS
FORKS AND CONVERGENCES

TWO SENSES OF
TRANSIT

CYCLISTS
IN THE WAY

MACHINERY
AGRICULTURAL

REELS
IN THE WAY

ANIMALS
IN THE WAY

ANIMALS
IN THE WAY

PEDESTRIAN AREA

PROXIMITY OF
CROSSWALK

ZONE
OF SCHOOL

CHILDREN PLAYING

PROXIMITY OF
TRAFFIC LIGHT

PROXIMITY
SIGNAL
"YIELD"

PROXIMITY OF
“STOP” SIGN

CYCLIST CROSSING

TROLLEY EXIT
FIREFIGHTERS

ZONE OF COLLAPSES

PAVEMENT SLIPPERY

SEVERE UNLEVEL

Informative signs

Their purpose is to orient and guide users of the road system, providing them with the necessary information so that they can reach their destinations in the safest, simplest and most direct way possible. Examples:

ALTERNATIVE ROUTE

IMMEDIATE DEPARTURE

BEACONS CLOSE UP

NAME AND NUMBERING STREET

CONFIRMATION

OF DIRECTION

LOCATION

NUMBERING SHIELD OF ROADS

Within these signs there are also those that inform about services (blue) and those that refer to places of tourist or recreational attraction (brown). Examples:

AIRPORT

FEEDING
RESTAURANT

ACCOMMODATION

PHONE
PUBLIC

FIRST AID
HOSPITAL

SERVICES
HYGIENIC

CLIFF

CASINO

RIDE

CRAFT

DIVE

CANOPY/ZIP LINE

Also included in these signs are some that are typical of highways, such as those shown below:

SIDE EXIT RIGHT

START OF HIGHWAY

END OF HIGHWAY

RETURN IN HIGHWAY

PHONE OF EMERGENCY

HIGHWAY WITH TELEVISION OR SYSTEM COMPLEMENTARY

Another informative sign is the one that indicates where parking is allowed, as well as those that provide other information of interest to drivers.

PARKING LOT PERMITTED

TOLL SQUARE

MIXED STOP

TRACK ONLY BUSES

CONTROL PHOTOGRAPHIC

CONTROL WITH CAMERA

WAITING AREA CYCLES SPECIAL

WAITING AREA CYCLES SPECIAL

WAITING AREA ADVANCED MOTORCYCLES

WAITING AREA ADVANCED MOTORCYCLES

ZONE 30

END ZONE 30

ONLY BIKES

START
CYCLE BAND

END
CYCLE BAND

END OF THE CYCLE PATH

CYCLE STREET

SEGREGATED SURFACE
MOTORIZED-CYCLES

SEGREGATED SURFACE
MOTORIZED-CYCLES

WAITING AREA
CYCLES SPECIAL

WAITING AREA
CYCLES SPECIAL

Transient signals

These signs are installed to warn of dangers or provide information to users when work is carried out on the road and are characterized by being orange. This color determines the transience of the signal. Only the sign that initially warns of the presence of work is yellow.

JOBS
IN THE WAY

END OF WORK
IN THE WAY

FLAGMAN

TRANSIT OF
MACHINERY

CURVE TO THE
RIGHT

HAIRPIN CURVE
ON THE LEFT

BADEN

MAXIMUM WIDTH

ZONE OF
COLLAPSES

PROJECTION
GRAVEL

DANGER

DETOUR

PROXIMITY
DETOUR

END OF DETOUR

EXHIBIT 2

Glossary and references

Glossary

Sidewalk: Part of a road intended for pedestrian use.

Overtaking: Maneuver carried out on the left side of the road axis, by which a vehicle is placed in front of another or others that preceded it.

Avenue or street: Urban road intended for the circulation of pedestrians, vehicles and animals.

Berm: Side strip, paved or not, adjacent to the carriageway of a road.

Road: Part of a road intended for the use of vehicles and animals.

Road: Rural road intended for the use of pedestrians, vehicles and animals.

Cycle: Non-motorized vehicle with one or more wheels, propelled by one or more people located on it, such as bicycles, tricycles, among others. Cycles are also considered those vehicles with one or more wheels that have an electric auxiliary motor, with a maximum continuous nominal power of 250 watts, in which the power is reduced or interrupted when the vehicle reaches a maximum speed of 25 km/h. sooner if the cyclist finishes pedaling or propelling it, which will be considered for the purposes of the law as non-motorized vehicles.

Ciclovía: Space intended for the exclusive use of cycles, which may be physically or visually segregated.

Driver: Any person who drives, operates or has physical control of a motor vehicle on public roads; who controls or operates a vehicle towed by another; or who directs, maneuvers or is in charge of the direct operation of any other vehicle, a saddle animal, a draft animal or a herding animal.

Crossing: The union of a street or path with others, even if it does not cross them. It includes the entire width of the street or path between the building lines or boundaries, if applicable.

Railway crossing: Intersection of a street or road with a railway line on which there is regular train traffic.

Regulated crossing: Crossing where there is a traffic light functioning normally, excluding intermittency, or where Carabineros are directing traffic.

Gutter: In streets, the angle formed by the road and the vertical plane produced by the difference in level between the road and sidewalk. On the roads, the shallow side ditch.

Demarcation: Symbol, word or mark, preferably longitudinal or transversal, on the road, to guide the traffic of vehicles and pedestrians.

Preferential right of way: Prerogative of a pedestrian or person driving a vehicle to continue moving.

Detention: Stoppage required by traffic signaling devices or the orders of the officials in charge of its regulation, as well as the brief stoppage of a vehicle to receive or drop off passengers, but only for the duration of this maneuver.

Road axis: The longitudinal line to the road, demarcated or imaginary, that will determine the areas with the opposite direction of traffic; Being imaginary, the division is into two equal parts.

Corner: Vertex of the angle formed by the converging building or boundary lines, as the case may be.

Parking: Paralyzing a vehicle on public roads with or without the driver, for a period longer than that necessary to drop off or receive passengers.

Intersection: Common area of roadways that intersect or converge.

Advance stop line: Line transversal to the road demarcated in accordance with the regulations, before a regulated intersection with a traffic light, which determines the beginning of the special waiting area for people driving bicycles or motorcycles.

Vehicle stop line: Line transverse to the road, demarcated or imaginary, before an intersection or a pedestrian crossing, which must not be crossed by vehicles that must stop. If it is not demarcated, it is understood that it is:

- At regulated crossings and pedestrian crossings, no less than one meter before them.
- At other intersections, just before the intersection.

Low beam: Light projected by the vehicle's headlights in which the upper edge of the light beam is parallel to the road and whose power allows obstacles to be seen at a distance of no less than 50 meters.

High beam: Light projected by the vehicle's front headlights parallel to the road, whose power allows obstacles to be seen at a distance of no less than 150 meters.

Parking light: Continuous or flashing light that allows you to identify a parked vehicle.

Register or circulation permit: Document granted by the authority, intended to identify the vehicle and its owner so that it can circulate on public roads.

Pedestrian crossing: Safety path on the road, marked in accordance with the regulations. In unmarked regulated crossings, it will correspond to the strip formed by the imaginary extension of the sidewalks.

Traffic lane: Demarcated or imaginary strip intended for the transit of a row of vehicles.

Exclusive use lane: Space on the road duly marked, intended solely for the use of certain vehicles, determined by the corresponding authority.

Patent plate: Distinctive that allows the vehicle to be individualized.

Platabanda: Sidewalk space, reserved mainly for the containment of green areas and urban trees, as well as for the installation of equipment, electrical and telecommunications service networks, lighting, traffic signs, street furniture, cycle parking, kiosks and, in general, to any function permitted on the sidewalk and authorized by the respective authority, complementary to the use and traffic of pedestrians.

Traffic light: Lighting device through which the circulation of vehicles and pedestrians is regulated.

Traffic sign: Official devices, signs and demarcations, with a permanent or variable message, installed by the authority with the objective of regulating, warning or directing traffic.

Overtaking: Maneuver by which a vehicle passes another or others traveling in the same direction without crossing the center line of the road.

Motorized cargo tricycle: Three-wheeled motorized vehicle intended exclusively for the transportation of cargo. The loading capacity of these vehicles may not exceed 300 kilograms in weight.

Emergency vehicle: The one belonging to Carabineros de Chile and Investigations, the Fire Department and the ambulances of fiscal institutions or private establishments that have the respective permit granted by the competent authority.

Collective transportation vehicle: Motorized vehicle, intended for public use, for the paid transportation of people, except for taxis that do not provide collective service.

School transportation vehicle: Motorized vehicle built to transport more than seven seated people and intended for the transportation of schoolchildren to or from school or related to any other activity.

Road: Street, road or other place intended for traffic.

Exclusive route: Duly signposted road, intended only for the use of certain vehicles, determined by the corresponding authority.

Special waiting area: Signposted area in accordance with the regulations, which allows drivers of cycles or motorcycles to stop and restart ahead of other motorized vehicles, at a regulated intersection with a traffic light.

Calmed Traffic Zone: Road or set of roads located in urban areas, defined within a certain geographic area, in which, through physical or operational conditions of the roads, maximum circulation speeds lower than those established by law are established. These can be 40 km/h, 30 km/h or 20 km/h.

Rural area: Geographic area that excludes urban areas.

Urban area: Geographic area whose limits, for the purposes of this law, must be determined and marked by the Municipalities.

References

- Driving in the Mountains, CONASET, Chile.
- Supreme Decree 170, 1985, Ministry of Transportation and Telecommunications, Chile.
- General Directorate of Traffic, Ministry of the Interior, Spain.
- Efficient Driving Guide - Private Vehicles, Chilean Efficiency Agency Energy (AChEE), Chile.
- Guide for cyclists in Chile, To contribute to safe and sustainable mobility by bicycle. cleta and other cycles, CONASET, Chile.
- Preventive Guide to the Effects of Alcohol and Drugs on Driving, CONACE, CONASET, Chile.
- DFL 1 (Transit Law), 2007, Ministry of Transport and Telecommunications, Chile.
- Traffic Signaling Manual, Ministry of Transportation and Telecommunications, Chile.
- “Efficient Driving” Manual, Institute for Energy Diversification and Saving (IDAE), Spain.
- Manual “New Driver's Book”, CONASET, Chile.
- Module 3. People in traffic 2: Alcohol and driving. Road Safety Education Training Program, CONASET, Chile.

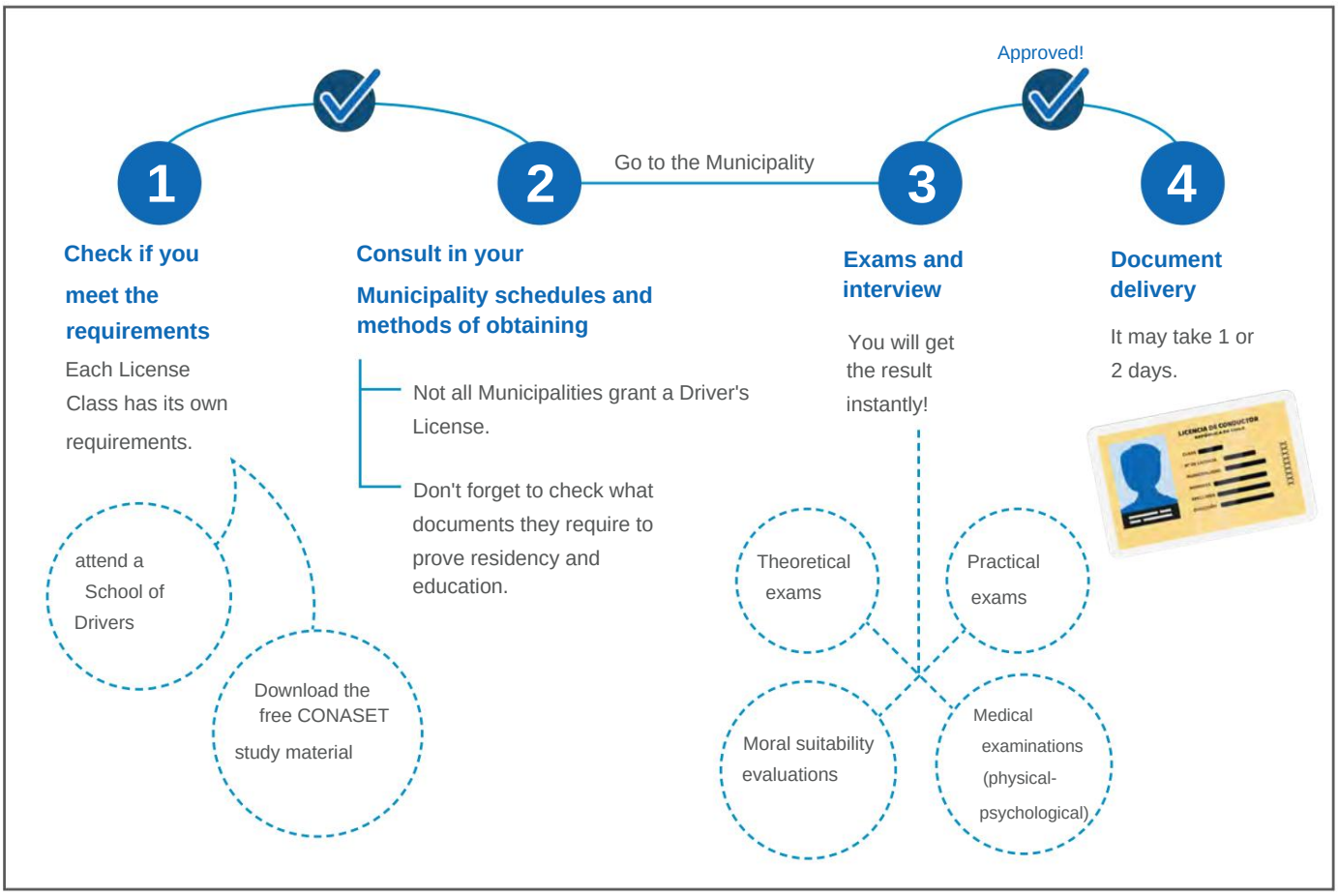
EXHIBIT

3

Process of obtaining License of Drive

Obtaining process

Driver's License



Before starting the process

If you want to obtain a Driver's License, the first thing you should check is whether you meet the requirements defined by the regulations. You can review the characteristics of each License Class and the associated requirements by clicking on this link: https://mejoresconductores.conaset.cl/

Remember that the Driver's License must be obtained in the commune where you reside.

If you take a course at a Driving School, we recommend that you take it, preferably, in the same commune where you will begin your processing, because they must provide you with the vehicle to take the practical driving test. You can find information about the Driver Schools at the following link: https://usuarios.subtrans.gob.cl/escuelas-de-conductores-no-profesionales.html

Once you meet the requirements to start the process, you must consult the Municipality to find out their hours and service modality since they can serve on a first-come, first-served basis or by scheduled time. Visit the Municipality's website or consult to be clear about what documentation they require to prove residence and schooling.

Obtaining process

At the Municipality they will perform tests to determine your visual ability, hearing ability, reaction capacity and coordination; a medical interview and theoretical and practical exams. Furthermore, to qualify the moral suitability, the Director of Transit and Public Transportation of the Municipality will have in view the Background Report issued by the Central Cabinet of the Civil Registry and Identification Service and the report from the National Driver Registry. Once you pass all the exams, the Municipality begins the creation of the Driver's License, which is signed by the Traffic Director and subsequently delivered to you.

After the license is issued, the Municipality has a period of 5 business days to inform the Civil Registry and Identification Service to include your license in the Driver Registry.

Opportunities

It is understood that each process begins with the presentation of the applicant's background in the municipality. The licensing process gives the option of having two opportunities for each theoretical and practical exam.

If you fail any of the exams established by law, you will be able to repeat each exam only once within each process. The deadlines to repeat the exams are:

- Theoretical exams, within a period of no more than 25 business days from the first failure.
- Practical exams, within a period of no more than 25 business days from the first failure.

If after the indicated deadlines you do not attend, or fail any of the exams again, it is understood that the process is terminated and the granting of the Driver's License will be denied.

If you did not obtain the license in a process (that is, the granting of your license is denied), you can start a new one, presenting the required and updated background information at the Municipality.

However, once the first denial occurs, you must wait 30 business days to start a second process. If in this second process the Driver's License is denied again, from now on, you must wait 6 months to start each new process counted from the respective denials of the license.

On the other hand, in the event that you need to request an extension of the deadline for justified reasons (health or work problems, for example), the municipality, based on the Administrative Procedures Law, could agree to said request as long as it has been required before the 25 business day re-examination period expired.