8 emergency strategies

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Chapter 7 gave useful strategies to help you handle personal situations that can influence your driving in a negative way. This chapter describes two major strategies for handling driving emergencies and many practical tips for helping you control situations to prevent emergencies from developing.

Preparing for emergencies

No one really expects to be involved in an emergency, but you can be sure that at some time you'll face one while you're driving. The best way to handle emergencies is to be prepared. One way you can prepare is by rehearsing what you would do. Try these steps:

1. As you drive, look ahead and scan the scene for potential hazards (a child running out in front of you, a cyclist swerving into your lane, a car stopping in front of you suddenly, etc.).
2. Ask yourself: *What would I do?* (brake, swerve, pull over, etc.)

The best preparation is to always be alert and drive using the **see-think-do** strategy. If you're alert and make good decisions based on your observations, you will usually be able to take a driving action before an emergency develops.

Remember to prepare your vehicle for emergencies. Carry the right emergency equipment to help you deal with situations described in this chapter.

Emergency driving strategies

Two strategies to handle dangerous situations are emergency braking and skid control. These strategies are complex. You should only practise them in a safe location under the supervision of an expert driver.

Emergency braking

warning!

Even skilled drivers are not able to safely handle every emergency. The strategies in this chapter can't guarantee your safety. The best preparation for an emergency is to avoid it.

You in the driver's seat

You're driving along your street, almost home. Out of the corner of your right eye you see a ball roll out onto the street with a blurry image behind it — maybe the neighbour's child. There's hardly any time to stop.

What should you do?

Even when you scan carefully, unexpected hazards can occur. When that happens, you may need to use emergency braking.

The key to emergency braking is to stop the vehicle as quickly as possible without locking the brakes. If you lock the brakes, the wheels stop turning. You will lose control of the steering and the car may skid.

Anti-lock braking systems (ABS)

Most new vehicles have ABS which allows you to brake and steer at the same time. You can't do this with ordinary brakes. In an emergency situation, if you have ABS you should apply continuous, firm, hard pressure to the brake pedal until the vehicle stops. The computerized sensors automatically release the brakes from the wheels to prevent locking.

Contrary to what some people believe, ABS does not allow you to drive faster and they don't always allow you to stop sooner. On some surfaces, like gravel, the braking distance may be longer. But ABS can help prevent wheels from locking up on wet and slippery surfaces.

If you have a vehicle with ABS, be sure to check your owner's manual for more complete information on emergency braking techniques.

driving tip

Learn to use ABS correctly by practising in a safe location. Accelerate to 30 km/h, brake hard and steer around an imaginary object. Do not pump the brakes because this turns the system off. Don't be alarmed by brake noise or shudder — this is normal. Check your owner's manual so you know the correct braking technique.

Strategies: emergency braking technique

To stop suddenly in an emergency:

With ABS:

1. Press down hard on the brake pedal, and hold it down until you come to a complete stop.
2. Do not pump the brakes.
3. Look and steer in the direction you want to go.

Without ABS:

1. Press down hard on the brake pedal, but not hard enough to lock the wheels.
2. Quickly release the brake and press hard again to regain control if you start to skid.
3. Look and steer in the direction you want to go. In most cases, you will not want to lock the brakes when stopping quickly. However, there may be occasions when you choose to lock the brakes because stopping is more important than steering.

Skid control

think about

Think about the road conditions before you start to drive. Will the weather conditions make the road slippery? You should be able to avoid skidding by making safe choices in the first place. The most likely cause of skidding is poor driving skills.

You in the driver's seat

It's a cold morning and you're in a hurry to make it to work on time. You suddenly feel the vehicle isn't responding when you turn the steering wheel. You press the brake. The back of the car swings to the right — you've hit ice!

What should you do?

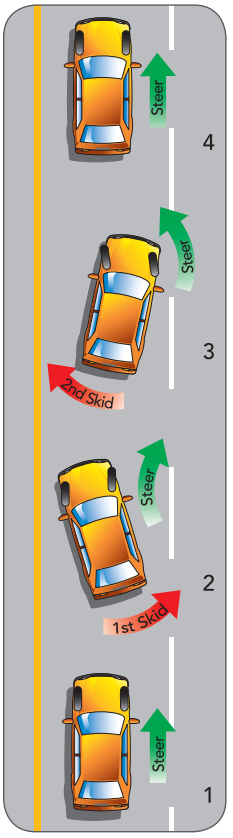
Skids can happen any time the tires lose grip on the road. This can be caused by slippery surfaces, as in the scene above, or by changing speed or direction too suddenly. Environmental elements like rain and ice contribute to skidding, but poor driving skills are the main cause of skidding. The way to avoid skids is to use your **see-think-do** skills. In slippery conditions, slow down.

warning!

Skids happen when drivers:

- slam on the brakes
- slam on the brakes and steer at the same time
- go around a corner too fast
- accelerate suddenly.

Steps to handle a skid



The illustration shows what happens to your car when it skids and how you can regain control. The numbers in the illustration correspond to the following steps:

1. You're driving straight, but you fail to notice the patch of black ice ahead.
2. As you drive over the black ice, the rear of your vehicle skids to the right. Ease off the accelerator, and look and steer smoothly in the direction you want to go. (In this case, steer to the right.) Don't brake — this will make the situation worse.
3. Now the rear of your vehicle skids to the left. (This is likely caused by overcorrecting in Step 2.) Stay off the accelerator, and steer smoothly in the direction you want to go. (In this case, steer to the left.) You may need to repeat Steps 2 and 3 until you regain control.
4. Once you've regained control, continue driving with caution.

driving tip

The best option in extreme weather conditions is to stay home or take the bus.

Environmental hazards

In B.C., fog, heavy rain and snow can create difficult driving conditions. Rain, snow and ice can make road surfaces unpredictable. Slippery road surfaces are dangerous for drivers and their passengers, and may lead to crashes involving several vehicles.

Loss of visibility

You in the driver's seat

You're driving along a rural road when suddenly you're in a low area that is covered in fog. You strain to see ahead, but it is hard to see anything.

What should you do?

Your ability to effectively **see-think-do** is reduced in bad weather conditions.

Weather conditions like fog, rain or snow can also be blinding. If you can't see clearly ahead or behind, your information about the road scene is dangerously reduced. You can't make good driving decisions in these conditions.

driving tip

In certain foggy conditions, you can use fog lamps instead of headlamps if it helps with visibility. In those situations, you can turn your headlamps off and only use your fog lights. However, both fog lamps and headlamps should never be used at the same time, if there is some fog but visibility is not affected or if conditions are clear.

Strategies: driving in low visibility conditions

Difficult weather conditions can be hazardous for drivers because visibility is often reduced. In these conditions:

- Slow down.
- Maintain extra space margins.
- Search and scan more carefully.
- Use low beam headlights in rain, snow and fog.
- Do not pass in extreme weather conditions because you can't see far enough ahead.
- Pull over and stop if necessary until the visibility improves. Choose a place that is safe from other traffic and does not block roadways.
- Use your defroster to keep your windows clear. If necessary, leave a window partly open for ventilation.
- Clear the vehicle of snow and ice before starting off. Make sure you can see clearly.
- Keep your wipers and washers in good working order.

Glare and shadows

Changing light conditions can reduce your ability to see. Glare can blind you in the day or at night when meeting vehicles with bright headlights. Dark shadows can hide hazards.

Strategies: overcoming glare and shadows

To handle glare and shadows while driving:

- Slow down before entering tunnels to let your eyes adjust to the lower light levels.
- Remove your sunglasses and turn on your headlights while driving through tunnels.
- Use sunglasses and your sun visor during the daytime.
- Keep your windows clean.
- Adjust your rear-view mirror to the night-driving position.
- Keep a good following distance at night to reduce the glare your headlights create.

Loss of traction

You in the driver's seat

It snowed during the night. You're just starting out to pick up some groceries. You've driven in snow before, so you don't think this should be a problem. As you move slowly down the driveway, you apply the brake lightly to test your braking distance. Your car slides slightly — this is more dangerous than you thought at first. There is ice as well as snow.

What should you do?

Rain, snow and ice can affect your traction. Loose gravel, wet leaves, mud or sand can also make roads slippery and dangerous. Slow down and use caution when driving on any low-traction surface, and avoid driving altogether in extremely bad weather conditions.

driving tip

Make sure your vehicle tires are in good condition, properly inflated and suitable for the driving conditions.

Rain

Rain can cause two dangerous driving conditions:

- loss of traction
- hydroplaning.

Rain makes the road surface slippery, especially during the beginning of a rainfall. The rain mixes with the oil on the road to create a slippery, oily film. This film washes away with continued rain, but if the rain is light or if it has not rained for a long time, the road will remain slippery longer.

Strategies: driving on wet roads

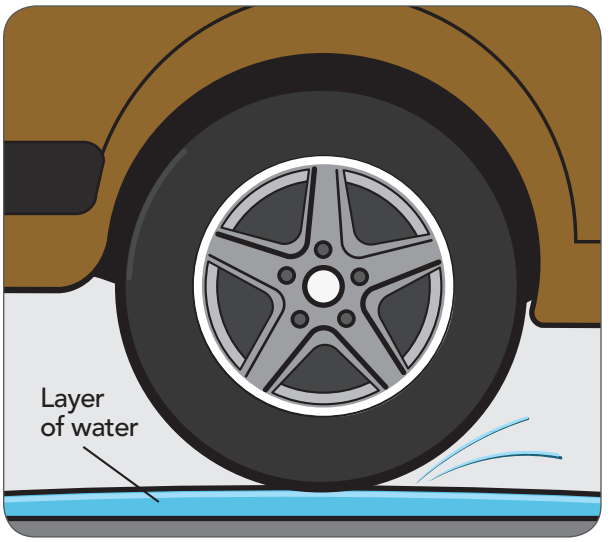
Make sure you have good control when roads are wet:

- Slow down and leave more following distance.
- Allow at least twice the normal braking distance.
- Brake gently so the wheels don't lock.

warning!

Never use cruise control in wet or slippery conditions. Your owner's manual will tell you to use it only in ideal driving conditions.

Hydroplaning happens when the tires lose contact with the road surface and float on a film of water. The driver instantly loses control of steering and braking. It can happen in rain or standing water. The higher your speed, the greater your chances of hydroplaning. You can tell if your vehicle is hydroplaning because the steering will suddenly become very light.



Vehicles with low tire pressure or worn tread are more likely to hydroplane.

Strategies: preventing/handling hydroplaning

To prevent hydroplaning:

- Check your tires for proper tread and inflation.
- Scan ahead for large puddles.
- Reduce your speed, especially during heavy rain.

If hydroplaning happens:

- Decelerate and drive straight. Never brake.

Deep water

Going through deep water can stall your vehicle and can even damage the engine or transmission. Consider turning back and going another way if you are faced with water across the roadway. If you can't avoid the section of roadway, drive through very slowly. After leaving the water, lightly apply the brakes for a short distance to dry them. Moving water that is deeper than half a metre can carry a car away.

Ice and snow

Ice and snow can cause you to lose traction very quickly. Lack of traction causes the wheels to spin when accelerating and to lock when braking. You can easily lose control of the steering.

In winter, temperatures can change quickly, causing unpredictable road traction. Temperatures near freezing are more dangerous than colder temperatures, although the road may look the same, because ice can form unexpectedly and may not be visible.

Be aware of hidden dangers:

- **Black ice** is caused by moisture freezing on the road surface. Normally you can't see it. But if the asphalt looks shiny and black instead of gray-white, be suspicious.
- **Shaded areas** may still be icy even after the sun has melted the ice on the other parts of the road.
- **Bridges and overpasses** tend to form ice on their surfaces before other road surfaces do.
- **Intersections** ice up quickly because of car exhaust and snow packing.

warning!

It can take you 10 times the normal braking distance to stop on ice.

Strategies: handling ice and snow

When faced with icy or snowy driving conditions:

Plan ahead

- Check the weather forecast before starting out. Staying home may be the wisest choice.
- Use tires that are suitable for winter conditions.
- Carry chains and know how to mount them. Snow tires and/or chains are a legal requirement on many B.C. roads during the winter.
- Carry sand or a piece of carpet to use if you become stuck on ice or in the snow.

See

- Make sure you can see. Scrape snow or frost from the windows and mirrors, get rid of any ice or snow on the wipers and clean all the lights before driving.
- Scan further ahead when driving to give yourself a larger safety margin.

Think

- Plan manoeuvres further ahead so you have more time to react.

Do

- Slow down.
- Accelerate gently. Sudden starts can send a vehicle into a skid or cause the wheels to spin.
- Carefully test your braking and steering at a very low speed. Use this test to decide whether to continue, or whether to slow down more.
- Don't wait until you spin out on a hill to put on the tire chains.

- It's extremely difficult to mount chains when you're on a hill. Instead use a designated chain-up area.
- Ease off the brakes and then re-apply them to maintain steering control if the wheels lock.
- Slow down before entering curves and corners. Braking in curves may cause you to skid.
- Use a low gear to go down hills that are icy.
- Don't use cruise control in icy or snowy driving conditions.
- Allow extra space margins (including more following distance).
- Avoid passing unless absolutely necessary.
- Travel in the section of road with the least amount of snow or ice if you have more than one lane you can travel in.
- Use a gentle, smooth steering motion.

Stranded or snowbound

If you're stranded in snow, stay with your vehicle unless you are absolutely sure you can reach help.

If you decide to run the car to keep the interior warm, only do this for about five minutes every hour. You must be very cautious because the car could fill with carbon monoxide gas. Carbon monoxide poisoning can cause dizziness or drowsiness and even lead to death. Make sure you also check that the exhaust pipe and exhaust system are not blocked or damaged because this could cause increased leakage of carbon monoxide into the car. Keep one window slightly open at all times for fresh air. Make sure that at least one person stays awake at all times.

warning!

If you feel dizzy or drowsy while your vehicle is running, you may be experiencing carbon monoxide poisoning. Turn off the engine and get plenty of fresh air.

Do you have the right equipment for winter conditions?

Turbulence

Watch out for crosswinds, headwinds and tailwinds. These can make it difficult for you to control steering. Even a passing tractor-trailer can create enough turbulence to move a vehicle.

Strategies: dealing with turbulence

If you experience turbulence while driving:

- Slow down.
- Grip the steering wheel firmly with both hands.
- Watch out for vehicles that could be more easily forced into your path — motorcycles, small cars, campers and vehicles towing trailers.
- Allow extra space on the side if you are passing a large truck or trailer.

Night hazards

You in the driver's seat

You've been driving all day to reach the city where your friends live. Now it's nighttime, and you're feeling a bit drowsy. You're on a quiet rural road. There is very little traffic, but you see a car approaching from a distance. You switch from high beam to low beam. The other driver isn't dimming the headlights. They are shining straight into your eyes, and it's hard for you to see.

What should you do?

Driving at night is a challenge for all drivers. It means your vision is limited and you can't be seen as well. You can't judge distances as well either. You will need to be more alert to practise **see-think-do** effectively.

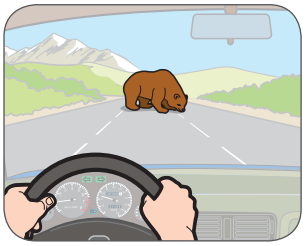
Using the headlights

Make sure you use the right headlights for the driving conditions. Low beam headlights will light up a path up to 30 metres straight ahead of you. High beams give you about 100 metres of light.

Be sure to use your headlights properly:

- You must use your headlights from 30 minutes after sunset until 30 minutes before sunrise.

- It is illegal to drive at night with parking lights or daytime running lights instead of headlights.
- You must dim your high beam headlights when you are within 150 metres of another vehicle, either when meeting or following a vehicle. Do you have trouble judging distances? Most people do. Be courteous and dim your lights early.
- You must also use headlights if visibility is reduced to less than 150 metres (for example, in fog or heavy rain).



Daytime

Low beam headlights

High beam headlights

Overdriving the headlights

Be careful not to overdrive your headlights at night, or in fog, rain or snow. Overdriving happens if you go too fast and you are not able to stop within the distance covered by your headlights. It is especially dangerous in a curve.

Strategies: night driving

To reduce the risks of driving at night:

- Keep your eyes moving. Scan carefully for pedestrians, cyclists and animals on the road.
- Avoid glare from lights. Glance to the right edge of the road to avoid glare from oncoming lights. Adjust your rear-view mirror for night driving to avoid glare from headlights of vehicles behind you. Adjust your outside rear-view mirrors so that the body of the vehicle is just outside your view — this will help reduce blind spots as well as glare. Keep interior lights off and keep the instrument panel lights low.
- Keep your windows and lights clean.
- Stay alert at night. Sing, talk out loud or stop for a cup of coffee to make sure you stay awake.
- Slow down.
- Increase your following distance.

Vehicle breakdowns

An unexpected vehicle breakdown can create a dangerous situation for you and your passengers. The best prevention is having a well-maintained vehicle and doing regular periodic and pre-trip checks.

Tire blowout

You in the driver's seat

You are driving along a highway when your front tire suddenly blows out.

What should you do?

When a front tire blows out, your vehicle can be pulled in the direction of the deflated tire, especially at high speeds. A rear blowout can cause the vehicle to start skidding.

Strategies: handling a tire blowout

To help stay safe when a tire blows out:

- Keep a firm grip on the steering wheel.
- Don't brake suddenly and risk loss of steering control. Ease off the accelerator and decelerate slowly. You can start to brake gently once the car has slowed down.
- Steer in the direction you want to go. (See **Skid control** earlier in this chapter.)
- Signal or put on the hazard lights and pull off the road as soon as it's safe.

Brake failure

Total brake failure is rare. However, if your brake system fails, you will need to use your **see-think-do** skills to respond quickly and safely.

Strategies: handling brake failure

If your brakes ever fail:

- Don't panic. Keep thinking about the hazards in front of you and how to avoid them.
- Look for an escape route or something to slow you down (for example, side road, open field).
- Pump the brakes hard and fast. You may be able to get enough braking action to stop the car.
- Gear down to the lowest gear so the engine will help slow you down.
- Apply the parking brake gently and gradually. Use the brake release as you do this, so you are prepared to release the brake quickly if the car goes into a skid.
- Use the hazard lights or the horn to warn other drivers.

driving tip

If you have power or power-assisted steering, you can still steer even after the engine has stopped. You just need to use more effort. If the engine stops, don't turn the ignition off, because the steering will lock.

Engine problems

You never know when the engine may die. You need to move out of traffic and into a safe place as quickly as possible if this happens.

Strategies: handling engine failure

If your engine ever fails:

- Signal and steer to the edge of the road.
- Try to get to the nearest exit or service area or pull off the road as far as possible if you are on a busy highway or freeway. Avoid stopping on a bridge or in a tunnel if at all possible.
- Turn on your hazard lights.
- Set out flares or a warning triangle if it is dark or visibility is limited.
- Stay with your vehicle. Put an S.O.S. notice in your windshield.
- Consider carrying a cellphone if you often travel on freeways or isolated roadways.
- Never get into a stranger's vehicle. Ask them to continue ahead and phone for you.
- Don't try to do roadside repairs on crowded and fast-moving freeways.

warning!

If your vehicle catches fire, stop and get everyone out immediately. Do not open the hood — that could cause the fire to spread. Move well away from the vehicle.

Headlight failure

It is dangerous and illegal to drive at night without headlights. You must get off the road as quickly as possible if your lights fail.

Strategies: handling headlight failure

If your headlights ever fail:

- Turn the light switch on and off quickly.
- Turn on the hazard lights if the headlights stay off.
- Slow down, pull off the road and get help.

Hood flying up

Hoods can fly up if they are not securely latched. If you notice that your hood is not properly latched, pull over and fully close the hood.

Strategies: hood flying up

Don't panic if you find yourself blinded by the hood flying up when you're driving:

- Try to look through the crack below the hood or open your window and look in the direction you're travelling.
- Take your foot off the accelerator.
- Turn on the hazard lights.
- Pump your brakes to warn drivers behind you that you're slowing down.
- Steer over to the side of the road.

Gas pedal sticking

warning!

Never reach down with your hand to release a stuck gas pedal because you could easily lose control of the vehicle.

The gas pedal can stick because of ice or snow build-up, or if the floor mat gets pushed up and jammed beneath the pedal, or because of a malfunction.

You may be able to release the pedal by using your toe to lift it if you are travelling at a very low speed when the pedal sticks.

Strategies: stuck gas pedal

If your gas pedal sticks:

- Apply the brake.
- Look for an escape path that will get you off the road. Continue to brake.
- Shift to neutral to disconnect the engine from the wheels. (This may damage your engine but it's better than crashing. Note that steering and braking will become harder if the engine stops.)
- Follow your escape path and, once you're stopped, turn off the engine.
- Do not try to start the engine again. Call for help instead.

Animals on the road

You in the driver's seat

You're driving along a rural highway at dusk. You're keeping a careful watch for animals; you've seen deer and elk in this area before. Suddenly, a large elk steps out from the brush, right into your path.

What should you do?

In B.C., animals on the road are a major hazard. Crashing into a large animal can cause damage and injury, not just to the animal, but to you and your passengers.

Strategies: watching for animals

To help prevent a collision with an animal:

- Scan the sides of the roadway ahead for animals.
- Watch for animal crossing signs when driving through farming or wooded areas. Slow down in these areas.
- Be extra cautious at dusk and dawn. This is when animals move around to feed, and it is also harder for you to see them at these times.
- Look for sudden, unusual spots of light on the roadway at night. This may be the reflection of your headlights off an animal's eyes.
- Remember that wild animals often move in herds. If you see one animal, there may be more.

driving tip

Take extra care when driving near horses and riders. Slow down and give them lots of space when you pass. Don't honk the horn because this could cause the horse to bolt into your path.

Strategies: when an animal is in your path

If an animal is directly in front of you:

- Check your rear-view mirror to see if there is a vehicle behind you, or if you can stop suddenly.
- Assess the risks and decide on an action. Can you stop safely? Can you steer around the animal? Would it be better to hit the animal or risk a crash?
- Slow down but resist the urge to slam on your brakes when you see an animal. This could send your vehicle out of control.
- Leave a wide margin when you drive around an animal. A frightened animal may run in any direction.
- If the animal is large and you can't stop in time, brake firmly and steer to strike the animal at an angle. Let up on the brake pedal just before hitting the animal. This will cause the front of your vehicle to rise and reduce the chance that the animal will come through the windshield.

Collision avoidance

You in the driver's seat

You're driving up a hill. Suddenly a car is coming right toward you in your lane.

What should you do?

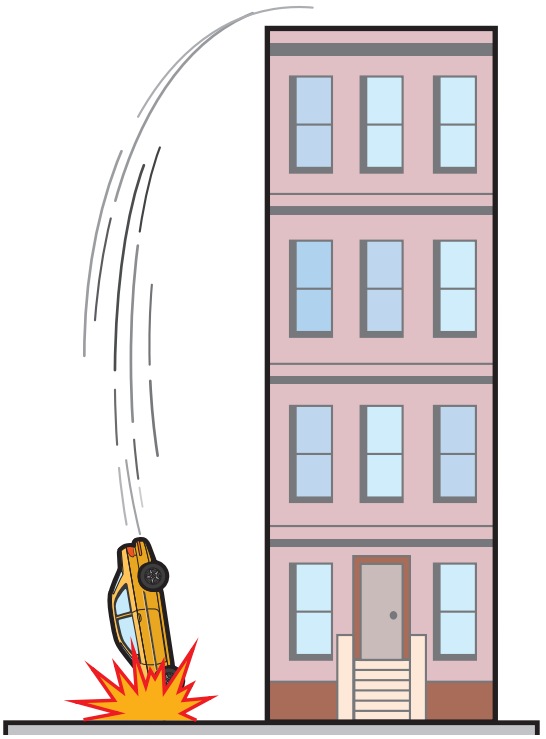
No one wants to be involved in a collision, but you may find yourself in a situation where one is unavoidable. The best way to avoid collisions is to use your **see-think-do** skills. Keep yourself alert, scan systematically, maintain good space margins and travel at the appropriate speed. These steps will help you avoid most collisions.

Even if you're faced with an unavoidable collision, you can sometimes reduce the impact. But you will need to think quickly to do this.

Strategies: avoiding crashes or reducing the impact

These techniques may help avoid a crash or reduce the impact of a crash:

- Slow down as much as possible.
- Try to avoid locking the brakes.
- Try to steer for something that will cushion your car, like bushes or a high snow bank. Avoid hard objects like parked cars or trees.
- Try to avoid a head-on collision at all costs by steering to the side. Steer to the right, not the left, as the oncoming driver may steer to the right.
- Use the horn. This may help the other driver regain alertness.



Crashing into a solid object at 30 km/h is like sitting in a vehicle when it falls from a one-storey building. At 60 km/h, hitting a solid object is like being in a vehicle when it falls from the roof of a four-storey building.

As shown in the graphic above, doubling the speed quadruples the force of impact. This is one reason why speed is such an important factor in crashes, and why slowing down saves lives.

think about

If you arrive at the scene of a crash, you may decide to stop and help. Think about what you would do. What would you like others to do if you were involved in a crash?

driving tip

When driving by a crash scene, don't obstruct traffic by slowing down more than necessary. Stay focused on your driving to avoid causing another crash.

At the scene of a crash

You in the driver's seat

As you round a curve, you hear the sound of screeching brakes followed by a crash. You slow down and see that the car in front of you has rear-ended a truck.

What should you do?

You arrive at the scene of a crash

If other drivers have been involved in a crash, they may need assistance.

Strategies: assisting at a crash scene

Here are some of the ways you might be able to help:

- Make sure your vehicle is parked away from the crash where it won't obstruct other traffic or emergency vehicles.
- Take measures to alert other drivers that there has been a crash — for example, set up warning triangles. This will help to avoid further crashes and injuries.
- Call for emergency services if necessary. Consider carrying a cellphone for emergency situations.
- Stay with injured people until help arrives.
- Do not let anyone smoke or light matches near the scene. There could be a fuel leak.

You are involved in a crash

Legal responsibilities

You have certain legal responsibilities if:

- you're involved in a crash
- other drivers have a crash because of something you do.

In either of these cases, you are legally required to:

1. Remain at the scene.
2. Give all reasonable assistance. Call for emergency services if you can and if necessary.

driving tip

Pick up our **What to do after a crash** card from your local Autoplan broker — this card makes it easier to record important information at the scene of a crash.

3. You must exchange the following information with the other driver, anyone who has been injured and anyone whose property has been damaged:
   - your name and address
   - the name and address of the registered owner of the vehicle
   - the licence plate number
   - insurance information.

   You must also provide this information to the police or a witness if requested.

Suggestions

Here are some other things you should do:

- Move the vehicles off the road if it is safe to do so.
- Avoid discussing who is at fault for the crash.
- Write down the names and addresses of all witnesses.
- Exchange driver's licence numbers with any other drivers involved.
- Draw a sketch or take photos of the scene, noting conditions such as time, location and weather.
- Notify your insurance company right away.