

# learn to ride smart

your guide  
to riding safely



**Yukon**

Highways and Public Works

*There and back again. Safely.*

Are you ready to take the **knowledge test**?

See reverse.



*There and back again. Safely.*

It's harder than you  
may think, so **study**  
the guide well.

**Take your ID**  
with you.

Don't **stress**...  
read through each  
question and take  
your time.

**Ask us**  
questions if  
you need help.  
We want you to  
succeed!

# **learn to ride smart**

your guide to riding safely

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Throughout this Manual, references are made to acts and regulations that govern driving in Yukon. These references are written in plain language to help you understand their impact on individual drivers. If there are differences between the material in this manual and any of these acts or regulations, the acts and regulations apply.

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## using this guide

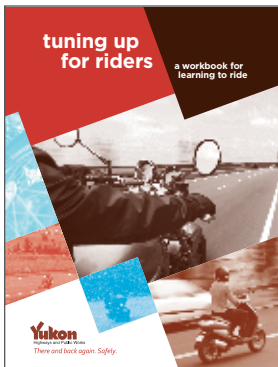
*Learn to ride smart* is designed for:

- new riders who want to get a motorcycle rider's licence
- experienced riders who are:
  - new to Yukon
  - reviewing their riding skills.

It contains the basic information you need to know to help you learn to ride safely. It will also help you prepare for the motorcycle knowledge test and the Class 6 road test.

### New riders

As a new rider, you are part of a high-risk group. This guide provides riding strategies to help keep you safe. When you pass your class 6 written test, you'll receive a copy of *Tuning up for riders*. It is a step-by-step guide that helps you learn and practise your riding skills. Use *Learn to ride smart* together with *Tuning up for riders* to become a safe motorcyclist.



### Experienced riders

Use this guide to review Yukon's riding rules and regulations if you're licensed to ride in another jurisdiction, or want to review your skills. Use it along with *Tuning up for riders* to help you prepare for your road tests.

### Getting the most from this guide

*Learn to ride smart* is divided into 12 chapters. Depending on what you need to know, and whether you're a new or an experienced rider, you may decide to read and study all of it, or just parts of it.

## Organization

*Learn to ride smart* is designed to help you quickly find the information you need. The 12 chapters are organized into three sections:

- **developing your smart riding skills** has the basic riding information you need to learn.
- **applying your smart riding skills** applies the basic information to specific riding situations.
- **references and resources** refers you to useful information.

Check the **table of contents** and **index** for a complete list of topics.

### What do the words in this guide mean?

**Rider** — refers to someone who operates a motorcycle.

**Bike** — means motorcycle. In this guide it never means bicycle.

**Cyclist** — refers to anyone riding a bicycle.

## Chapters 1 to 6: developing your smart riding skills

The first six chapters of this guide cover the basics of riding and are designed to help you develop your smart riding skills. They provide important information for riding that will help keep you and others safe on the road.

- **Chapter 1, you in the rider's seat**, presents some of the common choices that every rider makes.
- **Chapter 2, you and your motorcycle**, outlines the essential gear you'll need for safe motorcycling and describes the different types of motorcycles available.
- **Chapter 3, knowing your motorcycle**, gives an overview of how your motorcycle works and the basics of maintenance.
- **Chapter 4, signs, signals and road markings**, provides information about signs, signals and road markings that you'll see while riding.
- **Chapter 5, rules of the road**, talks about the rules you must know to ride safely.
- **Chapter 6, see-think-do**, teaches you a riding strategy that will help you become competent and avoid problems on the road.

## Chapters 7 to 10: applying your smart riding skills

Chapters 7 through 10 will help you apply the basic information from the first six chapters.

- **Chapter 7, sharing the road**, shows you how to safely share the road with all other road users.
- **Chapter 8, personal strategies**, gives you pointers on how to overcome negative influences that may affect your riding.
- **Chapter 9, challenging riding conditions**, describes some riding conditions that may be challenging and gives strategies on how to deal with them.
- **Chapter 10, emergency strategies**, outlines ways to deal with emergencies.

## Chapters 11: references and resources

The final chapter tell you how and where you can find more information. This chapter is for reference only. You won't be tested on this material.

- **Chapter 11, need to know more?**, lists places to go for more information.

## Design features

This guide is designed to be easy to use. Different kinds of information appear in different locations on the page. Understanding the type of information you will find in each location will help you use this guide effectively. Here are two sample pages from the guide. Some of the items you'll find displayed in the sidebar are on the left side of the page.

The image shows two overlapping pages from a riding guide. The left page is titled 'developing your smart riding skills' and features a sidebar on the left with a 'crash fact' box and a diagram of a road with a car and a motorcycle. The right page is titled 'chapter 6 - see-think-do' and features a 'Strategies: the observation cycle' section, a 'Stopping and starting up again' section, a 'Turning' section, a 'Hazard perception' section, and a 'Thinking like a rider' section. It also includes a photograph of a street scene and a motorcycle.

**developing your smart riding skills**

**Strategies: the observation cycle**  
Always keep your eyes moving while you are riding.

- look well ahead
- scan from one side of the road to the other, checking for potential hazards
- glance in your mirrors to keep track of what is happening behind you

Then start all over again. You should complete the whole cycle every five to eight seconds.

**Observing ahead**  
Make sure you know what's coming up on the road by scanning at least 12 seconds ahead. This means looking one to two blocks ahead in city riding and half a kilometre ahead on the highway. This will give you time to prepare for a potential hazard instead of being taken by surprise.

As you look ahead, scan to the left and right to see what is happening along the sides of the road. If you see a parked car be careful. A child may walk out from between them, or a dog could swing open in front of you.

**crash fact**  
In a recent study, 71 per cent of those involved in a crash were injured in the head.  
National Highway Traffic Safety Administration (NHTSA)

**It is advised to wear things that will not restrict your ability to feel or see. But it is important to pay attention to things such as your seat belt. Please do not drink and ride. You can see more about what is riding in front of you.**

**chapter 6 - see-think-do**

**Stopping and starting up again** — as you slow down to stop, check your mirrors for traffic behind you. Then make sure you have a clear view of the intersection. If your view is blocked after you have stopped, you may need to edge forward into the intersection to see clearly before you ride through.

**Turning** — shoulder check to make sure a cyclist or other road user hasn't come up beside you. Then scan the intersection just as you begin to move forward. Make sure that your eyes are looking in the direction you want to go once you begin your turn.

**Hazard perception**

**Thinking like a rider**  
You're riding along a residential road. The driver of the car in front of you seems uncertain of where she wants to go. She is slowing down and then speeding up. You decide to keep your distance. You glance in your side mirror and see that the car behind you is getting a bit too close. While you are thinking what to do, you still pass a parked car that was blocking part of your view, and you see a large patch of black oil on the roadway ahead.

Riding safely means looking out for hazards. A hazard is anything in the riding environment that could harm you or other road users. Hazard perception is the skill of identifying these hazards. To share the road safely, train yourself to look for other road users, objects and road surface that might cause problems. As you ride, your eyes should be moving, and you should be thinking ahead about where hazards could cause

**Sidebar** **Main column**



in this chapter

crash fact

smart riding tip

warning!

think about

fact

## Main column

Most of the information for each chapter is located in the main column on the right side of each page. This main column also includes:

- **pictures** to help illustrate certain points or ideas
- **scenarios**, called **thinking like a rider**, which help you to think about what you would do if you were faced with a particular riding situation
- **strategies** to help you handle everyday and emergency riding situations.

## Sidebar

You'll find the following information along the left side of the page:

**in this chapter** — a list at the beginning of each chapter that lets you know what's included in the chapter

**crash fact** — facts and statistics about crashes

**smart riding tip** — practical hints that help you keep safe on the road

**warning** — important safety information

**think about** — questions that invite you to think about your riding choices

**fast fact** — important facts on related topics.

### in this chapter

- The challenges
- The cost
- The solutions
  - be fit to ride
  - make good decisions
  - take responsibility
- Preparing to ride

Riding a motorcycle is fun and exciting, but it can also be challenging. You can reduce the risk of a crash by becoming a competent rider and making good choices.

Being on the road can be challenging for riders and drivers. But riders sometimes face extra challenges, like poor road conditions. This chapter introduces you to motorcycling and provides three solutions to these challenges — keeping focused on the task of riding, making good decisions and looking out for the safety of others. You can use these solutions when making choices about how you as a rider can keep yourself and others safe.

## The challenges



## Vulnerability to injury

More than half of all motorcycle crashes result in injury or death. Unlike in a car, on a motorcycle you're not surrounded by steel and you don't have bumpers to protect you. You also don't have seatbelts or other car safety features to help prevent injury in a crash — you have to depend on good riding skills and good judgment to keep you safe.

## Exposure

Being a rider means being outdoors. This may be your main reason for riding, but it can also be uncomfortable. Riding in rain, wind and extreme temperatures can reduce your alertness and reaction time. **Chapter 2, you and your motorcycle**, suggests ways you can protect yourself from the elements when you ride.

### Visibility

The compact size and shape of motorcycles can make them invisible to other road users. Even a small car can hide a motorcycle from view. Road glare can make a bike seem to disappear. Rain, mist and fog make motorcycles hard to see. Dusk and nighttime are especially dangerous for riders because visibility is already limited. Throughout this guide you'll learn many techniques for making you and your bike more visible.

#### crash fact

Every day in B.C., a traffic crash causes a fatality. On average, every 13 days, one of these fatalities is a motorcycle rider.

*Traffic Collision Statistics:  
British Columbia (2007)*

### Vulnerability to road conditions

Some road surfaces, like gravel, sand and mud, can make a motorcycle lose traction. Unexpected ruts and grooves can also be hazards. Rain and cold temperatures make road surfaces slippery. Crossing railway tracks requires a special technique. Read **chapter 9, challenging riding conditions**, to learn techniques for handling poor road conditions.

### Balance and coordination

A motorcycle rider has to balance the bike while operating a set of controls, watching for hazards and dealing with traffic. As if this isn't enough, the rider also has to cope with many different road conditions. **Chapter 6, see-think-do**, talks about a riding strategy that will help you handle all these factors.

### Personal factors

Riding safely takes self-confidence. Confidence comes from having excellent skills that you can depend on. Safe riding also depends on being alert and focused on the task of riding. It means never being impaired while riding. Read **chapter 8, personal strategies**, for ways to handle personal pressures.

#### think about

Think about what a crash could mean to you. How much would it cost to fix your bike? What if you were injured? How would that affect your family? Your job? What if your passenger was injured or even killed? What about the other people involved in the crash?

### The cost

Riders are more at risk of being injured in a crash than drivers of passenger vehicles. According to the U.S. Department of Transportation, motorcycle riders are 16 times more likely than motorists are to die in traffic crashes.

## The solutions

Riding a motorcycle is not for everyone, and staying safe on your bike depends on the choices you make. Will you choose the thrill of speed even when it's dangerous? Will you always choose to ride with a proper helmet and riding gear? Will you choose a motorcycle that's suitable for you? Will you ever put your passengers at risk?

A thinking rider always puts safety first. Smart riding skills are about making choices that help keep you and others safe. The choices you make determine the kind of rider you'll be. A smart rider chooses to:

- be fit to ride
- make good decisions
- take responsibility.

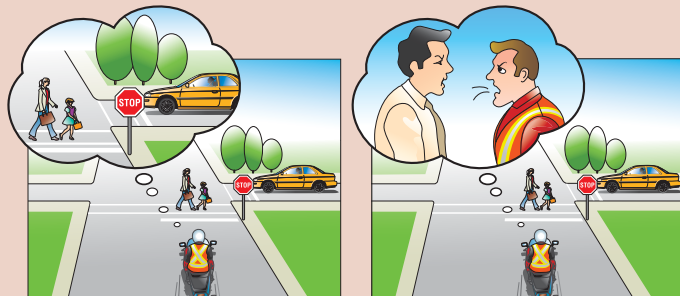
## Be fit to ride

### Thinking like a rider – part 1

*You've got a busy morning, beginning with a 9 a.m. dental appointment, then coffee with a friend. Just as you are heading out to your motorcycle, your roommate starts an argument. According to him, you're not doing your share of the chores.*

*While riding to your appointment, you think of all the things you should have said to your roommate. You're having trouble paying attention to the road.*

**What choice would you make?**



Focus on your riding? **◀ or ▶** Focus on the argument?

### crash fact

Based on police reports, the top five causes of motorcycle crashes in B.C. are:

- unsafe speed
- rider inattentive
- rider error/confusion
- alcohol involvement
- wildlife

If you make the right choices, you can help keep yourself safe.

*Traffic Collision Statistics:  
British Columbia (2007)*

### Alertness and concentration

When you're riding, you need to be alert and give your full concentration to the task. Fatigue or illness can make you less alert. Being cold and wet can be distracting. Drugs, alcohol and even prescription and some over-the-counter medications can affect your focus and balance. Strong emotions like anger or distress can make you lose concentration. All it takes to cause a crash is a few seconds when you're not paying attention.

**Chapter 8, personal strategies**, outlines ways you can stay alert.

### Physical condition

Riding is physically demanding. Here are some things to consider before you learn to ride:

- **Coordination** — you'll need good coordination to keep a bike upright and balanced while operating several controls at the same time. This is easier for some people than for others. How's your coordination?
- **Strength and endurance** — riding a motorcycle is demanding. It takes strength to push a bike. You need endurance to take the strain that riding puts on the arms and upper body. You may ride in difficult weather conditions. Are you ready to learn the techniques that will help you meet the physical demands of riding?
- **Eyesight** — your eyes will take in about 80 per cent of the information in the riding scene. You need to have sharp eyesight and good peripheral vision. Should you have your vision checked by a specialist to see if you need to wear glasses or contact lenses?
- **Health** — some health problems, such as a back injury or heart condition, may prevent you from riding or make riding dangerous for you. Seasonal allergies may also affect your ability to ride safely. Are you healthy enough to ride? Should you check with your doctor?

### Make good decisions

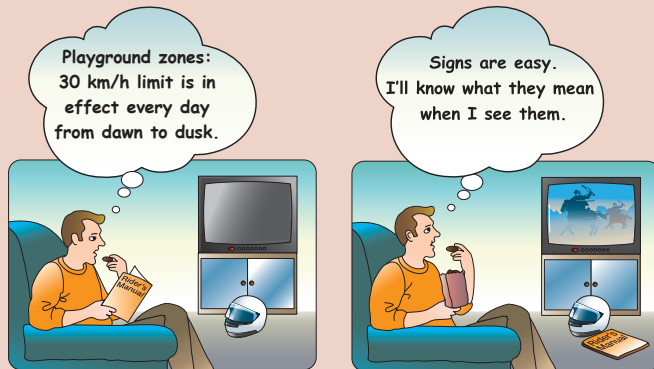
You'll need to make quick and accurate decisions when you ride. Will you be tempted to run a yellow light because you are in a hurry? Will you take a chance and ride after you've been drinking? Being a safe rider requires learning, planning, predicting and thinking for yourself.

## Keep learning

## Thinking like a rider – part 2

As you ride along, you spot a playground sign. You know you have to slow down, but during what hours? The sign doesn't say. Quickly, you try to remember when the playground speed limits are in effect. Do you have to slow down at 8:45 a.m. or not? You can't remember...

**What choice should you have made?**



**Take the time to learn the rules of the road?** ◀ or ▶ **Not worry about it?**

The first step in making good riding decisions is to devote time to learning as much as you can about riding. You can do this by having a learning plan:

## smart riding tip

You must be accompanied by a qualified supervisor before you pass the motorcycle road test.

- 1. Study this guide.** The guide will introduce you to the basic information you need to know to become a safe rider. You'll be tested on this information when you take a motorcycle knowledge test.
- 2. Get a learner's licence.** After you pass the motorcycle knowledge test you'll be given your learner's licence. (See **chapter 11, your licence**, for details.)
- 3. Get help from experts.** Once you have a learner's licence, learn the basic riding skills. A good way to do this is to take a professional training course and work with a coach. Use *Tuning up for riders* to guide you and your coach in your practising. Until you're confident in your basic riding skills, such as braking, turning and changing gears, stay in an off-street practice site.

4. **Keep studying and practising.** When starting out, practise riding on quiet streets. Be confident in low-traffic areas before moving into busy urban traffic or high-speed highways.
5. **Get licensed.** Pass the road test to earn a Class 6 licence.
6. **Assess yourself.** Keep checking your skills and keep learning. How can you keep your riding skills sharp?
  - Ask an experienced rider to watch you ride and suggest how you can improve your techniques.
  - Take a refresher course.

### Plan your riding

#### Thinking like a rider – part 3

*You're definitely going to be late for your dental appointment now. Maybe if you go just a little over the speed limit you'll be able to make that next light.*

**What choice would you make?**

**Take a chance and speed?**



**Keep to the speed limit and plan your time better in the future?**

#### smart riding tip

Smart planning means doing a thorough pre-trip check before you start to ride. See **chapter 3, knowing your motorcycle**, for more information on the pre-trip check.

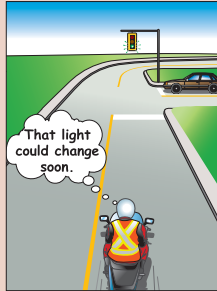
Smart riding means planning ahead. Have you allowed enough time to get to your destination? Have you planned the shortest and safest route? What's the weather going to be like — do you have the right gear? What other riding plans might you need to make?

Predict the scene

Thinking like a rider – part 4

You're going too fast and forget to watch the traffic lights at the next intersection. Suddenly, you're almost at the intersection and the light has turned yellow.

What choice would you make next time?



Predict the scene well ahead? **◀ or ▶** Respond in a hurry?

think about

Can you predict how sharp a curve is? Can you tell if a green light is about to change? How can you tell if a driver is thinking of changing lanes?

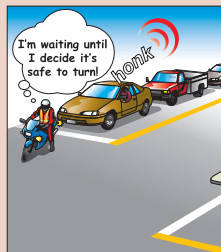
Being able to predict the riding environment will help you make the right decisions. You need to be aware of all the clues in the riding environment (in this case, the stale green traffic light and the car on the right). Riding at an appropriate speed and scanning the road ahead allows you to predict the scene.

Think for yourself

Thinking like a rider – part 5

There's one more intersection before the dentist's office. You have to turn left and there isn't a turning lane to help you. You become frustrated as you wait for your turn. Cars are lined up and the driver immediately behind you honks. You see a turning space but hesitate...is that gap wide enough for you to turn safely?

What choice would you make?



Wait until you feel there's a safe gap? **◀ or ▶** Turn to satisfy the driver behind you?



Another part of making good choices is to know yourself and understand the things that can influence your riding:

- **Pressure from other road users** — at times you will feel pressure from drivers or other riders, and you'll have to decide what to do. How will you react to someone who is tailgating or honking at you?
- **Influences from peers** — other people can influence your riding. Your friends may pressure you to ride beyond your abilities. You may think that fast starts will impress them. Making tough decisions can sometimes lead to uncomfortable situations. How can you deal with this?
- **Influences from the media** — riding has a special mystique in our culture. Think about the bike ads and movies you've seen. How are riders portrayed? What type of riding do these images encourage?

Will you base your riding decisions on safety, or will you let other influences pressure you? Read **chapter 8, personal strategies**, for ways to handle difficult situations.

### Take responsibility

Becoming licensed to ride means that you're taking on new responsibilities for yourself, your passengers and other road users.

### You, the rider

#### Thinking like a rider – part 6

*You finally got through the dental appointment. Now you're worried about being late for your friend. Just as you round a curve, you see a big semi-trailer. It's going pretty slowly. You're nervous about passing — you haven't been riding for long. But if you don't pass you're going to be late.*

**What choice would you make?**

**Push your limits and pass?**



**Accept your limits and stay behind?**

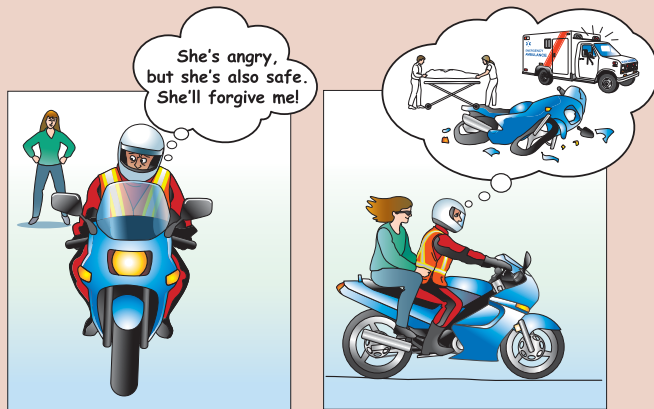
You need to know and accept the limits of your riding skills. You also need to accept the limits of your motorcycle and the road conditions. Will you take responsibility for developing your riding skills so that you can ensure your own safety?

## Your passengers

## Thinking like a rider – part 7

You meet your friend at a café and have a great time together. Just when it's time to leave, she says, "Can you give me a ride home? I'm dying to ride on your bike." She doesn't have a helmet, but it's only a couple of blocks to her apartment.

**What choice would you make?**



**Risk annoying your friend by not giving her a ride?**



**Take your friend and risk her life?**

Since you're responsible for the safety of your passengers, make sure:

- your motorcycle is equipped to carry passengers
- they wear an approved helmet and protective gear
- they're properly seated behind you with their feet on the footpegs or floorboards
- they know how to be a safe passenger, and
- your motorcycle licence permits you to carry passengers.

Carrying a passenger changes the way your bike handles, so you need to be an experienced rider before accepting passengers.

For more information on carrying passengers, see **chapter 8, personal strategies**.

## Other road users

### Thinking like a rider – part 8

*You're almost back home. About half a block from the next intersection, you notice a woman standing at the crosswalk, but she's looking the other way and doesn't appear ready to cross. You could slow down and prepare to brake for her, but if you just speed up a little bit you could make it through the intersection first.*

**What choice would you make?**

**Be cautious and slow down?**



**Get through the intersection first?**

You share the road with cars, trucks, trains, other motorcyclists and bicyclists. Pedestrians and people who use wheelchairs may need to cross your path. You may need to move to the side of the road so that an emergency vehicle can pass. You never know when an animal may dart across your path.

You can't always take action that will protect you, your passengers and other road users. But by making responsible choices, you can help prevent many dangerous situations.

## Preparing to ride

Riding a motorcycle is complex and you'll always have to make choices. Some of these choices may be tough. You can prepare yourself by studying this guide and *Tuning up for riders*, by practising with a qualified supervisor and by taking professional training.

### in this chapter

- The motorcycle
  - types of motorcycles
- The gear
  - helmet
  - clothing
  - gloves
  - footwear
- Budgeting

In **chapter 1, you in the rider's seat**, you learned the importance of making good riding choices. But before you start riding, you need to learn how good gear and a suitable motorcycle can add to your safety.

## The motorcycle

### A rider goes shopping

*For a long time, you've been promising yourself that you'd learn to ride a motorcycle when you got your first good job. Well, that day is here. You're ready to shop for a motorcycle. The only trouble is, you're not really sure what kind of motorcycle to buy. And you're beginning to realize that you might not have enough money to buy the fancy gear you've just been looking at.*

#### **What should you do?**

Choose a motorcycle that suits your needs. You will have to consider several things when making your choice:

- **Your size and strength** — choose a motorcycle you can control. Your feet should be able to reach the ground when you straddle the bike. You should also be able to handle the weight of the motorcycle. Can you push it back and forth and keep it balanced?
- **Your skill level** — choose a motorcycle that fits your level of handling skill. If you're a learner, you might decide to buy a small motorcycle and trade it in later for a more powerful model.
- **Your riding goals** — think about why you want a motorcycle. If you are interested in commuting to work, you will probably choose a different type of bike than if you are planning to use it for long trips.

Once you've decided what you need, take time to inform yourself. Search out as much information about models as you can, and weigh the pros and cons of each. Ask friends for their opinion. Go to motorcycle dealers, read about different motorcycles and talk to experienced riders.

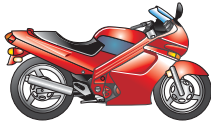
## Types of motorcycles

There are several types of motorcycles available. All of them come with a variety of engine sizes and other options.



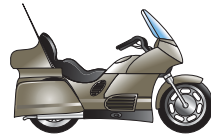
### Cruiser

These have custom styling details such as pulled-back handlebars and a stepped seat for a passenger. Riders sit in either an upright or a more laid-back position.



### Sport, Sport touring

Sport models are street-legal versions of racing models. They are designed to be quick, fast and very maneuverable. Sport touring motorcycles combine features of sport and touring motorcycles and are often more comfortable for long-distance touring or for carrying passengers.



### Touring

These heavy motorcycles are designed for long-distance travel because they are comfortable and have a large cargo capacity. They usually have extra bodywork, or fairings, and a windshield. Both are designed to protect the rider and passenger from wind, weather, dust, insects and other debris. The rider and passenger sit in an upright posture.



### Dual-purpose

These combine some features of off-road motorcycles with the features of street-legal motorcycles. They are more rugged than street motorcycles and have higher ground clearance.



### Standard

These are general-purpose motorcycles that are good for learners. The rider usually sits in an upright posture, and the bike provides seating for a passenger.



### Motor scooter

Motor scooters have the engine mounted below the rider, usually under an enclosure, and they usually have an automatic transmission. Most have a platform for the rider's feet, which also provides some weather protection. Most motor scooters are 50 cc, but some are much larger and more powerful. If over 50 cc's a valid class 6 drivers licence is required, if 50 cc's or smaller it may be operated with any class of drivers licence.



### Moped

Mopeds are 50cc or smaller and have pedals for assisting the engine on hills. If the moped is over 50 cc's a valid class 6 licence is required, if 50 cc's or smaller it may be operated with any class of drivers licence.



### Off-road

These are not legal for street riding because they are built for off-road settings. They do not have extensive electrical systems, such as lights or horns, and have no emission controls. Most jurisdictions restrict where these motorcycles can be used. The rider sits in an upright posture.

## The gear

Riding gear is more than a fashion statement — it's designed to:

- protect you from the weather
- help protect you from injury
- make you visible
- enhance your comfort.

### crash fact

Helmets can prevent fatal injuries 29 per cent of the time. They are effective in preventing head injuries in 67 per cent of crashes. Wear your helmet every time you get on your motorcycle.

*National Highway Traffic Safety Administration*

### smart riding tip

- Be cautious about using a damaged helmet. Check the manufacturer's information for guidelines and replace one that has been in a crash.
- You should replace your helmet every few years because of natural deterioration.

This is a full-face helmet. Will it restrict your hearing? Numerous studies have shown it will not. A helmet may actually improve your hearing by screening wind and engine noise. A helmet will not make you less alert.

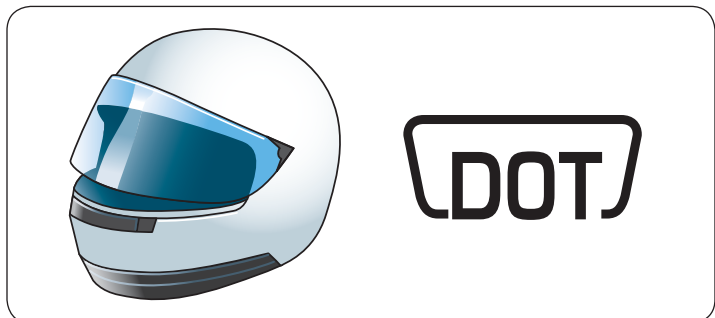
A full-face helmet provides the best protection in a collision as well as protection from wind, dust, rain, insects and debris. It is the only type that protects the face. Look for a helmet with a label showing that it meets DOT, Snell M2005 or Snell M2010, or ECE standards.

## Helmet

According to the Motorcycle Safety Foundation, one in every five motorcycle crashes results in head or neck injuries for the rider. Wearing a helmet is the single most important factor in preventing or reducing these injuries. In Yukon, all riders and their passengers are required to wear approved motorcycle safety helmets.

### Checklist for buying a helmet

- ❑ Choose a helmet that meets Yukon's laws by looking for one with a label that shows it meets DOT, Snell M2005 or Snell M2010, or ECE standards.
- ❑ A full-face helmet provides the best protection in a collision as well as protection from wind, dust, rain, insects and debris. It is the only type that protects the face.
- ❑ Be seen. Choose a bright colour. White makes you visible. Add some reflective tape to the sides and back for even more visibility.
- ❑ Go for fit. It should feel snug around the entire head and be tight enough to stop it from moving. But make sure it is not too tight. Also, be aware that the padding may compress over time, and the fit may become looser.
- ❑ Avoid buying a used helmet. It may have been in a crash, and the damage may not be obvious.



### Protect your eyes and face

You need to protect your eyes and face while riding. Constant wind can make your eyes water, which can prevent you from being able to see hazards. Flying insects, dust and debris can hurt your eyes and face. Eyeglasses or sunglasses do not provide adequate protection for your eyes because they can fly off, move or shatter.

Most motorcycle windshields do not give adequate protection for your eyes or face. The best protection is a full-face helmet with a built-in face shield because it protects your eyes and your face.

If you choose a helmet that doesn't have full-face protection, you'll need goggles to protect your eyes. Remember though, these will not protect the rest of your face. And if you wear glasses with a helmet that doesn't have full-face protection, you should wear goggles over your glasses for protection from the wind.

### Checklist for eye and face protection

- Choose shield material that is scratch and impact resistant.
- Check that the shield will give you a clear view to either side.
- The space inside a shield should have enough room for your eyeglasses or sunglasses.
- The shield should fasten securely to the helmet.
- Check that air can flow freely. This prevents fogging.
- Beware of tinted materials. It's unsafe to use them at night or in the rain because they can obstruct your vision.
- Wearing contact lenses while riding can irritate your eyes. Be prepared by carrying your glasses at all times.

### smart riding tip

Even on warm days, the motorcycle's speed creates a wind that can lower body temperature to the point of hypothermia. Always be prepared. Even on very hot days, you should wear a jacket to prevent dehydration.

## Clothing

The correct clothing can give you some protection during a collision. It also protects you from the weather and from debris. Being warm and dry will help you stay alert and maintain coordination. Choose clothing that is designed for motorcycle riding and wear it in layers so you can adjust to changing conditions. Jeans give only minimum protection. Never ride in lightweight pants or shorts.

### Checklist for clothing

- ❑ Jackets and pants should fit snugly but comfortably, and should not balloon out while you are riding.
- ❑ Leather and good-quality synthetics, such as Kevlar and Cordura nylon, offer good protection from abrasion. Built-in or accessory body armour can help prevent or reduce impact injuries in the event of a crash.
- ❑ Wear a high visibility garment such as a safety vest to help make you more visible both in daytime and at night. You can further increase your visibility by choosing clothing that features fluorescent material and reflective striping.
- ❑ Check for good ventilation as well as warmth.
- ❑ Check that sleeve and leg cuffs are long and snug enough to keep out the wind and rain.
- ❑ Choose to be dry. A good rainsuit doesn't balloon out at high speeds or tear apart, and it will keep you warm and dry. It has long sleeves and legs and extra room to fit comfortably over regular riding gear.

The well-dressed rider.





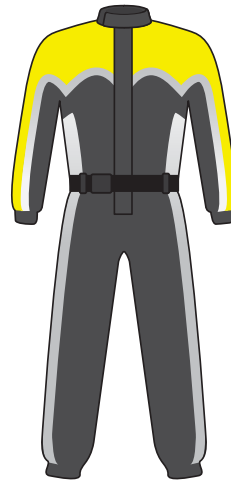
### High visibility clothing

Wearing a high visibility garment helps keep you safe by making you more visible to other road users. High visibility garments include:

- Motorcycle safety vests with built-in fluorescent panels.



- Motorcycle jackets or rain suits with built-in fluorescent panels.



- Work safety vests and jackets.



## Gloves

Use gloves to protect your hands from injury and from the cold and wet. It's best to use gloves that are designed for motorcycle riding. These will give you good protection while allowing you to make precise hand movements.

### Checklist for gloves

- ❑ Check the fit. Gloves should be comfortable and flexible and have good grip.
- ❑ Choose gloves that are abrasion-resistant. Look for leather or Kevlar panels to protect your palms and knuckles.
- ❑ Gloves should cover your wrists and overlap the sleeves of your jacket. This prevents cold air from flowing into your jacket and protects your skin from injury in an accident.
- ❑ One pair of gloves may not be enough. You may need some that are suitable for summer riding and others that are suitable for rain and cold-weather riding.

## Footwear

Your boots should protect your feet and ankles and keep them warm and dry.

### Checklist for footwear

- ❑ Leather provides the best protection and strength. But it's not waterproof so you may also need waterproof overboots.
- ❑ The soles should be slip-resistant and flexible. This will allow you to effectively manage the controls with your feet.
- ❑ Footwear should cover the ankles and not slip off easily.
- ❑ Heels should be low so that they do not catch on controls.
- ❑ A good fit is important.
- ❑ Tuck laces in securely, otherwise they may get tangled in the bike.

## Budgeting

Will you be able to afford to ride? You need to ask yourself this question early. Don't be caught with an expensive motorcycle and no money left over for insurance, maintenance or training.

### Budget checklist

- ❑ **Motorcycle** — your largest cost will likely be your motorcycle. Make sure you buy a motorcycle that is comfortable and suitable for your riding needs.
- ❑ **Gear** — set aside enough money for the best helmet you can afford. Browse in a few shops and price the riding gear you'll need. Remember to think about the different weather conditions you'll encounter when selecting your riding gear.
- ❑ **Insurance and motorcycle licensing** — insurance costs vary with the engine size of the motorcycle and the type of coverage you choose to buy. You'll also need to pay to licence your motorcycle.
- ❑ **Licence and test fees** — you'll need to pay for your motorcycle driver's licence and riding tests.
- ❑ **Running costs** — consider the costs to keep your motorcycle in good safe running condition, including tune-ups and replacing wear items such as tires and brakes. There is also the ongoing cost for fuel, and you may want to add some accessories to your bike.
- ❑ **Training** — riding a motorcycle is a complex activity. Don't put your safety at risk because you haven't budgeted for riding courses or for acquiring the necessary information. Your life (and the lives of others) is priceless.

## in this chapter

- Getting to know your motorcycle
  - left handlebar controls
  - right handlebar controls
  - instrument panel
  - mirrors
  - ignition switch
  - fuel supply valve
  - foot controls
  - stand
- Riding posture
- Motorcycle pre-trip check
- Pre-trip planning check
- Periodic inspection
- Riding and the environment

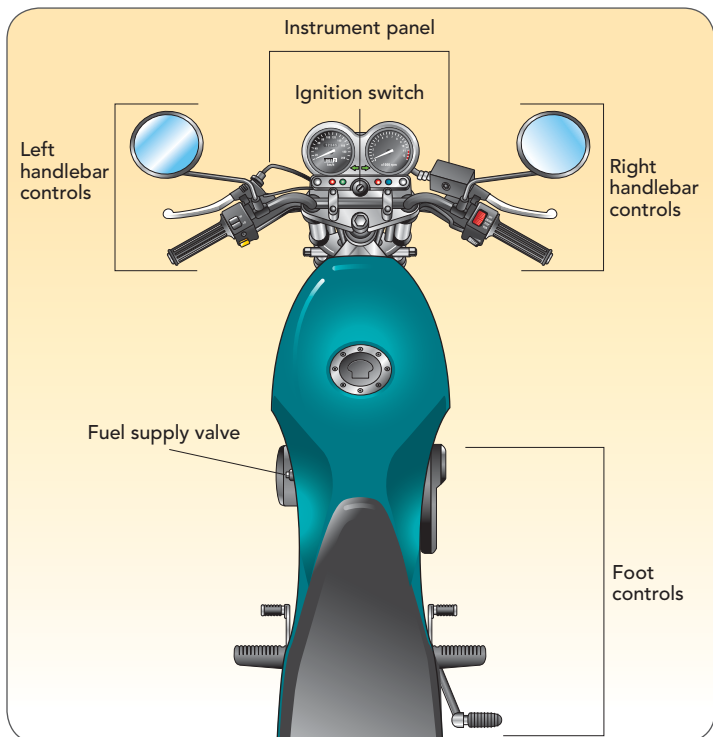
You need to be able to operate all your bike's controls without taking your eyes off the road. Every bike is a little different, so check your owner's manual for specific information on your bike.

**Chapter 2, you and your motorcycle**, presented different options for choosing a suitable motorcycle and safe riding gear. This chapter focuses on how motorcycles work. Read on to find out the basics about motorcycle operation and maintenance.

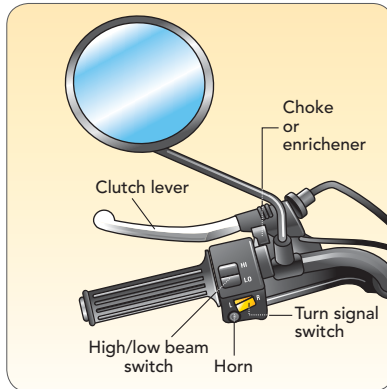
## Getting to know your motorcycle

### Thinking like a rider

*You're going out with a friend for your first practice session. He asks you to show him a few controls. You point out the throttle and the brake. He asks you to show him a few more things. You look at him with a frown and say, "Come on, when can we start?" He says, "Okay, try pushing the motorcycle around on the driveway." You get it down off the stand and try to push. It won't move. (It's still in gear.) You look at him and say, "How come...?" He replies, "Well, maybe we'd better finish getting to know how everything operates."*



## Left handlebar controls



### Clutch lever

This lever operates the clutch, which is the mechanism that engages the engine to the transmission. Some motorcycles with automatic transmissions will not have a clutch lever, and on most motor scooters this lever operates the rear brake.

Squeezing the clutch lever will disengage the clutch and disconnect the engine from the transmission. Releasing the lever will engage the clutch and connect the engine to the transmission.

You will use the clutch lever when selecting and changing gears, when putting the motorcycle into neutral and during some slow-speed manoeuvres.

### Turn signal switch

Use turn signals to let others know the direction you intend to ride. The turn signal switch operates the left and right turn signals. Use your thumb to operate the button. Some motorcycle models have the left turn signal on the left handlebar and the right turn signal on the right handlebar. Most motorcycle indicators do not cancel automatically. Make sure you know how to cancel the signal.

### High/low beam switch

Most motorcycles come equipped with a headlight that turns on automatically when the engine is running. The high/low beam switch will change the headlight to the high beam or low beam position. You operate it with your left thumb.

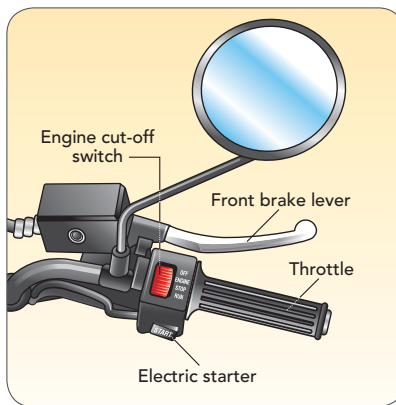
### Horn

You operate the horn button with your thumb. Your horn is an important way to warn other road users of potential danger.

## Choke or enricher

Most motorcycles have either a choke or an enricher to help start a cold engine. Move it to the On position when you start the engine, and gradually move it to the Off position as the engine warms up. You will find either the choke or enricher on the left handlebar, near the ignition or below the gas tank. Check your owner's manual for more details about your motorcycle.

## Right handlebar controls



### Engine cut-off switch

This safety switch stops the engine immediately. You use it to turn off the engine in emergencies, and you must turn it on before starting the engine. Use your thumb to operate the switch.

### Electric starter

Most newer motorcycles have an electric starter instead of a kick-starter. After you turn on the ignition switch, use the electric starter to start the engine. Operate it with your thumb. Make sure the transmission is in neutral before you use the starter.

### Front brake lever

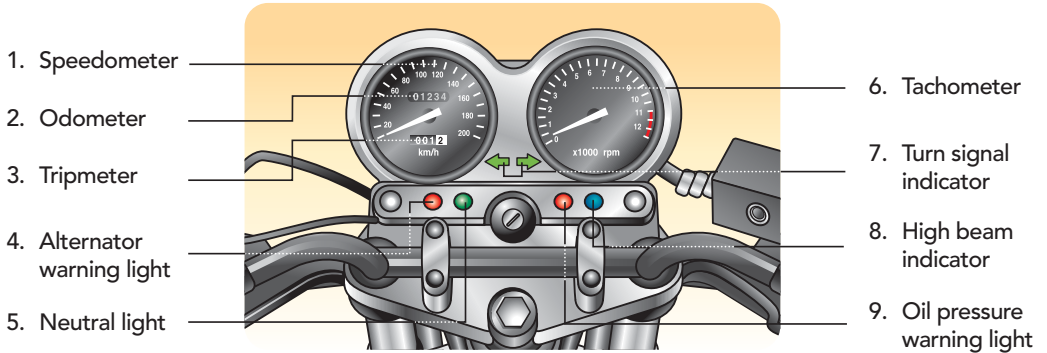
Motorcycles have two brakes. The brake lever on the right handlebar operates the brake on the front wheel. You operate it by squeezing the lever toward the handgrip with the fingers of your right hand. The rear brake is usually operated using a foot pedal. On most motor scooters, the rear brake is operated by a lever on the left handlebar in place of the clutch lever found on most motorcycles.

Some motorcycles have linked braking systems. With linked braking, applying the front or rear brake lever applies both front and rear brakes. Check your owner's manual to determine how to operate your motorcycle brakes.

### Throttle

The right handlebar grip is also the throttle or accelerator. To increase the engine speed, rotate it toward you (roll on), and to decrease the engine speed, rotate it away from you (roll off). The throttle should always spring back to the idle position when you remove your hand.

### Instrument panel

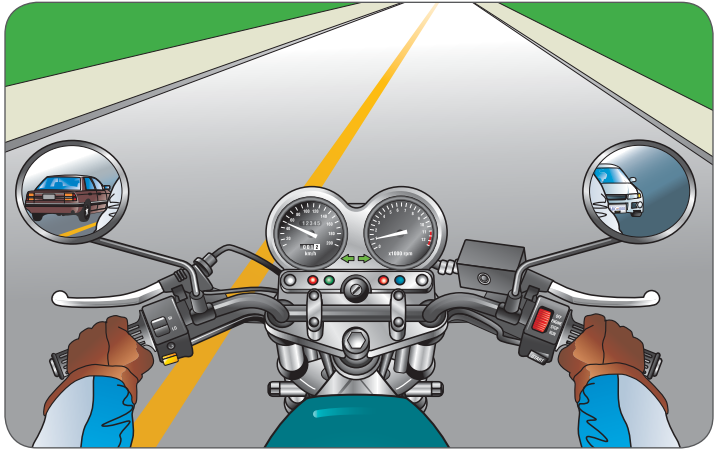


As you sit in the rider's position, you will see the instrument panel directly in front of you. The panel is a series of gauges and indicator lights that monitor the condition of your motorcycle. Match the numbers in the chart to find out the function of each item. Some motorcycles may not have all the controls in the illustration, and some may have other controls, such as a fuel gauge or a temperature light.

Number	Indicator/Gauge	Function
1	Speedometer	Shows the speed the vehicle is travelling (in either kilometres or miles per hour).
2	Odometer	Displays the number of kilometres/miles that the motorcycle has travelled since manufacture.
3	Tripmeter	Shows the distance travelled since it was reset to zero.
4	Alternator warning light	Shows whether the battery is charging.
5	Neutral light	Usually a green light that tells you the transmission is in neutral.
6	Tachometer	Shows the engine speed in revolutions per minute (r.p.m.).
7	Turn signal indicator	Flashes when either turn signal is active. Signals may not cancel automatically. The lights will remind you to turn off your signal.
8	High beam indicator	Usually a blue light that tells you the high beam head light is on.
9	Oil pressure warning light	A red light warns of low oil pressure in the engine. If the warning light comes on, take action to solve the problem as soon as possible. Note: The light does not tell you how much oil is in the engine. Use the oil dipstick or sight window to check the engine oil level. Some motorcycles with two-stroke engines may have a warning light that will warn you when the engine oil level is low.

**warning!**

Most motorcycles have convex mirrors. While they provide a wider field of view, they make things look smaller and farther away than they actually are.

**Mirrors**

Adjust the mirrors so that you can see the lane behind you and as much of the other lanes on the road as possible. Each mirror should show the edge of your arm. But even with good adjustments, your elbows may block the view behind.

**Ignition switch**

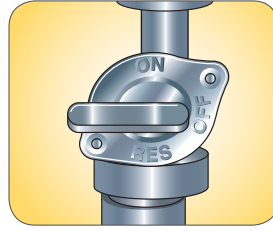
Get to know all the possible positions of the ignition switch:

- **Park** — the rear tail light remains on and the engine is off. The key can be removed. Not all ignition switches include this position.
- **On** — all electrical systems are on and the engine will run.
- **Acc** — provides power for auxiliary equipment when the motor is off.
- **Off** — the engine will not run. All electrical systems are off, and the key can be removed.
- **Lock** — the steering is locked. This helps prevent theft.



## Fuel supply valve

If a motorcycle has a fuel supply valve, it will have either a Prime position or an Off position.



This valve controls the flow of gasoline to the carburetor and is usually located just below the fuel tank. If your motorcycle is fuel injected, it will not have this valve. On some motorcycles, you must turn the fuel supply valve or fuel petcock to the “On” position for fuel to flow from the gas tank to the carburetor, and turn it “Off” after shutting off the motorcycle to ensure that the engine does not flood when not running.

### smart riding tip

If you forget to turn the fuel supply valve to “On”, the motorcycle might start, but will soon stall from lack of fuel.

The fuel supply valve usually has three positions:

- **On** — Opens the flow of fuel.
- **Reserve** — Opens the flow of fuel from the reserve part of the fuel tank. When you run out of fuel on reserve, the tank is empty.
- **Off** — Turns the flow of fuel off. Motorcycles with a vacuum valve will not have an Off position but have a **Prime** position on the fuel supply valve. Use it when starting the engine if you’ve completely run out of gas or if you’ve drained and refilled the gas tank.

Check your owner’s manual for instructions on how to use the valve.

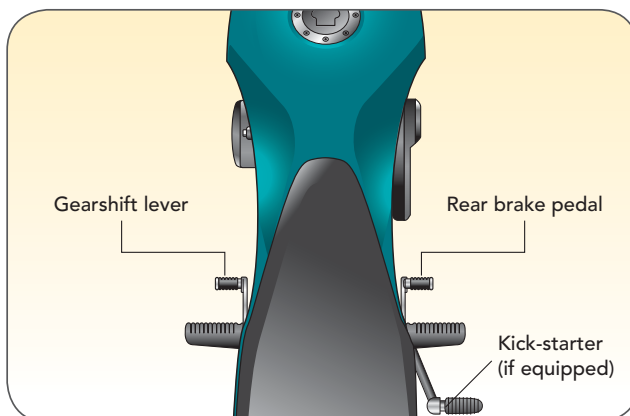
### smart riding tip

Some motorcycles have an anti-lock braking system (ABS). These systems give you more control on varying surfaces, but will not necessarily allow you to stop in a shorter distance in all circumstances.

Does your motorcycle have ABS? Check your owner’s manual or look for an ABS indicator light. If the ABS indicator light remains on after start-up, take the motorcycle in for repair — the system may be malfunctioning.

## Foot controls

Practise using the foot controls so you can always respond quickly and accurately.



### Rear brake pedal

On most motorcycles this pedal is located in front of the right footpeg. It activates the brake on the rear wheel. Use this brake by applying pressure with your right foot. Under normal riding conditions, you use both the front and rear brakes at the same time.

Some motorcycles have integrated brakes. When you apply the rear brake firmly, the motorcycle automatically applies the front brake as well. But you can apply the front brake independently.

### Gearshift lever (if equipped)

This lever is used to select the gear that will give you enough engine power for the speed that you want to be riding. This lever is normally just in front of the left footpeg, and you operate it with your left foot. You always operate this lever along with the clutch lever.

Most motorcycles have five or six gears and a neutral position. Motor scooters and some motorcycles with automatic transmissions may not have the lever.

You always operate the gearshift lever along with the clutch lever. Squeeze the clutch lever with your left hand, and then select the appropriate gear with your left foot. It takes practice to learn to shift gears smoothly. You will need to learn to coordinate operating the clutch lever with operating the throttle and the gearshift lever.

### Kick-starter (if equipped)

Your motorcycle may have a kick-starter located behind the right footpeg. You need to fold out the lever before you use it and put it back after the engine is running. Check your owner's manual for information on how to safely use the lever.

#### warning!

Never drive off a stand. Always push the motorcycle off the stand before moving. Check that the stand is fully up. If it isn't, it could dig into the road when you are turning.

#### smart riding tip

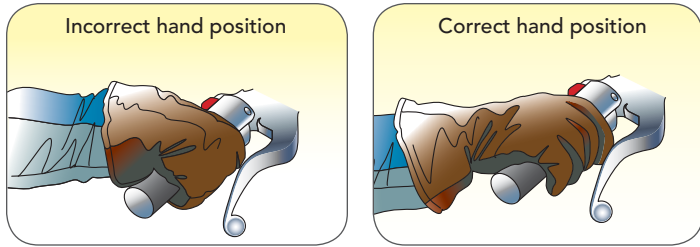
For your comfort and safety, adjust the position of your rear brake pedal and gearshift lever to fit you.

### Stand

All motorcycles have stands to support them when parked. They have either side or centre stands. Some have both. A centre stand is useful when doing maintenance because it lifts the rear wheel off the ground. When using either the centre or side stand, make sure the surface of the road is firm enough to prevent the stand from sinking. Your motorcycle may have a side-stand switch that automatically shuts off the engine if you put the motorcycle into gear while the side stand is down.

### Riding posture

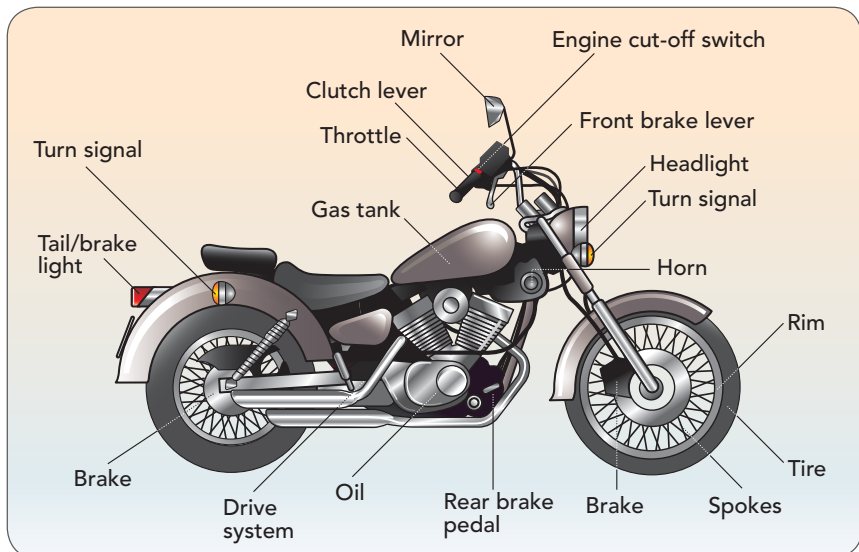
If you have a comfortable posture while riding, you'll be better able to prevent fatigue and control your motorcycle. Use the following list to check your riding posture:



- ❑ **Seating position** — you should be seated far enough forward so that your arms are slightly bent and your back is straight. This allows you to control the handlebars without having to stretch or turn your body.
- ❑ **Hands** — make sure you can grip the handgrips firmly. You should ride with your wrists flat or slightly dropped to prevent you from accidentally rolling the throttle on.
- ❑ **Knees** — always keep your knees close to the gas tank. This helps you keep your balance while turning.
- ❑ **Feet** — place your feet on the footpegs when the motorcycle is moving. They should be angled out slightly, with your heels just behind the footpeg. Your feet are then ready to move quickly onto the rear brake or the gearshift lever.

## Motorcycle pre-trip check

Even if you're in a hurry, you should always check your motorcycle before riding. The pre-trip check doesn't take long and will soon become routine and automatic. Remember, read your owner's manual to learn about the correct functioning of your motorcycle.



*Use this illustration as a guide when you do a pre-trip check.*

## Tires

- ❑ **Air pressure** — check that the air pressure in the tires is correct. Your owner's manual or a sticker on your bike will have information on the correct pressure to use. Check the pressure when the tire is cold and at least once a week if you are riding regularly.
- ❑ **Tread** — uneven or worn tread can cause you to lose traction and control over the steering.
- ❑ **Condition** — inspect the tires for cuts, bulges, damage to the side walls and embedded objects.

## Wheels

- ❑ **Wire spoke wheels** — check for damaged, missing or broken spokes, as well as for spoke tension.
- ❑ **Mag wheels** — check for damage or cracks.
- ❑ **Rims** — check for damage.

## Drive system

- ❑ **Chain** — check for tension and lubrication.
- ❑ **Belt** — check the tension and wear.
- ❑ **Shaft** — check for oil leaks.

## Electrical

- ❑ **Lights** — check that the tail light works and that both beams of the headlight work.
- ❑ **Brake light** — check that both controls activate the light.
- ❑ **Turn signals** — test both signals by turning each one on and off.
- ❑ **Horn** — try the horn. Is it working? Don't ride unless it is. It could save your life.
- ❑ **Engine cut-off switch** — check that it works.

## Fluids

- ❑ **Oil** — check the oil level.
- ❑ **Coolant** — if your motorcycle engine is liquid cooled, check the fluid level. Also check hoses for cracks.
- ❑ **Fuel** — check that you have enough gasoline.
- ❑ **Leaks** — check that there are no leaks on the ground under your motorcycle.

## Clutch and throttle

- Clutch** — when you squeeze the clutch lever, the cable should move smoothly and feel tight.
- Throttle** — it should snap back when you let it go.

## Mirrors

- Mirrors** — make sure both mirrors are clean, adjusted and securely fastened.

## Brakes

- Brakes** — check both front and rear brakes. Make sure they feel firm and that they stop the motorcycle from moving when you apply them.

## Pre-trip planning check

Just as you check your motorcycle for safety, check your planning before you start:

- Do you know your route? Use a map if necessary.
- Have you allowed enough time? Will you have to adjust for heavy traffic?
- Have you checked the weather forecast? Will it be very hot or very cold? Will you need to wear special gear?
- What kind of light conditions will you be riding in? Will you need to wear reflective gear?
- Have you thought about road conditions? Will you need to be especially alert to compensate for hazardous road conditions?
- Have you thought about your return trip? Is the weather likely to change? Will you need additional clothing or gear?

## Periodic inspection

Your pre-trip check will help you feel confident that your motorcycle is safe as you set out for your destination, but periodically you will need to check it more thoroughly to ensure good maintenance. How often you do the periodic check and related maintenance will depend on how often you ride. If you ride frequently, give your motorcycle a weekly check-up. Here are some of the things you should check:

- Brakes
- Levers
- Battery
- Steering
- Drive system (chain, shaft or belt)
- Wheels
- Fasteners
- Suspension
- Cables
- Fluid
- Bodywork

### Strategies: tire tips

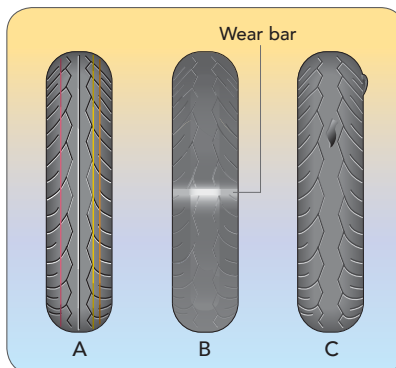
Tires are a key piece of safety equipment. Good tires can save your life.

- Check tire pressure regularly. You can't tell if the pressure is correct by looking at the tire — check using a tire pressure gauge before you start riding while the tires are cool. Adjust pressure according to the weight you are carrying. Check your owner's manual for specifications. When checking tire pressure, also inspect the tread for wear and for foreign objects such as nails, screws, glass, or wire that may result in a flat tire.
- Replace any tires that show bumps, bulges, cuts, knots, cracking or exposed material.
- Use only tires that match the specifications for your motorcycle. Front and back tires must be compatible. Check that tires are installed in the correct direction.
- Replace tires when the wear bar appears, or before.
- Avoid sudden starts and stops. These reduce the life of a tire.

Tire A is a new tire. It has a shiny finish that can reduce grip. It may take up to 200 kilometres of riding to wear off this finish, so ride cautiously.

Tire B has lost most of its tread and the wear bar is showing. This tire needs to be replaced.

Tire C is damaged and should not be ridden under any circumstances.



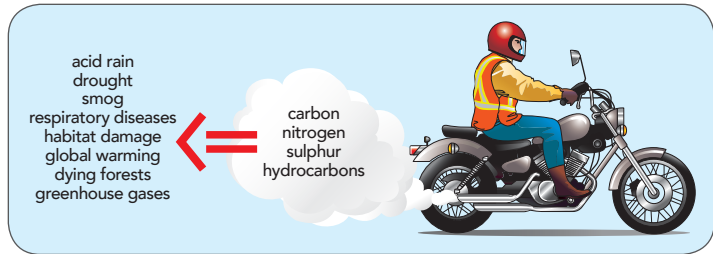
## Riding and the environment

Using a motorcycle instead of a car can be a green choice. Motorcycles:

- use about half the gasoline that cars with comparable performance use
- use only a quarter of the road space that four-wheeled vehicles use
- use less parking space than cars use
- use fewer resources during their manufacture than cars use.

If you are buying a motorcycle, choose one with up-to-date emission control technology. Older motorcycles produce up to 15 times more emissions per kilometre than the average new car or light-duty truck. New technology, such as fuel injection, and better emission standards, is improving this situation.

But motorcycles also contribute to air pollution because they are not built with the same emission controls as cars and are not subject to the same stringent emission standards as cars.



### smart riding tip

Good safe riding habits can reduce your fuel consumption by as much as 30 per cent, save wear and tear on your motorcycle, and reduce emissions. For more smart ways to be fuel-efficient, visit the Natural Resources Canada Office of Energy Efficiency website at [www.oeenrncan.gc.ca](http://www.oeenrncan.gc.ca) or call 1-800-837-2000.



### smart riding tip

To ensure your motorcycle is ready for next year's riding season, check your owners manual for tips on winter storage.

Here are some things you can do to help protect the environment — you'll save money, too:

#### Use other forms of transportation

- Walk, cycle or take public transit whenever possible.

#### Reduce fuel consumption

Riding safely reduces fuel consumption and saves money, too:

- Be a smooth operator — avoid jackrabbit starting and stopping, ride at a steady speed.
- Slow down and save — keep to posted speeds or below.
- Plan your route — combine several errands into one trip, and plan the route so that you go to the destination that is farthest away first — this will allow your motorcycle to warm up to normal operating temperature which helps reduce fuel consumption.
- Avoid idling — turn the motor off if stopped for more than 60 seconds, such as when stopped at the side of the road.
- Check tire pressure at least monthly — under-inflated tires increase fuel consumption.

#### Reduce emissions

- Choose a fuel efficient motorcycle.
- Keep your motorcycle tuned up to reduce emissions.
- Change the oil regularly and use the right grade. Have any oil leaks fixed.
- Keep the air filter clean.

## in this chapter

- Signs
  - regulatory
  - school, playground and crosswalk
  - lane use
  - turn control
  - parking
  - reserved lane
  - warning
  - object markers
  - construction
  - information and destination
  - railway
- Signals
  - lane control
  - traffic lights
- Road markings
  - yellow lines
  - white lines
  - reserved lane
  - other markings

In **chapter 3, knowing your motorcycle**, you learned about some of the controls on your motorcycle. This chapter is a handy reference section that gives examples of the most common signs, signals and road markings that keep traffic organized and flowing smoothly.

## Signs

There are three ways to read signs: by their shape, colour and the messages printed on them. Understanding these three ways of classifying signs will help you figure out the meaning of signs that are new to you.



Stop



Yield the right-of-way



Shows driving and riding regulations



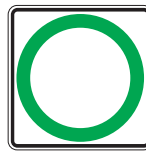
Explains lane use



School zone signs are fluorescent yellow-green



Tells about motorist services



Shows a permitted action



Shows an action that is not permitted



Warns of hazards ahead



Warns of construction zones



Railway crossing



Shows distance and direction



## Regulatory signs

These signs tell you about driving and riding laws and regulations. It is an offence under the *Yukon Motor Vehicles Act* to disregard them. Drivers who do not follow the instructions on these signs may receive penalties.



Stop completely — continue only when safe



Give the right-of-way to other vehicles and crossing pedestrians



The fastest you may drive in good conditions



Indicates a lower speed limit ahead



Do not enter



Do not go this way — usually mounted on exit ramps



One way — gives direction of traffic on cross street



Winter tires or chains must be used when sign is displayed



Stay off this road during major disasters — road may be used only by emergency vehicles



Move into right lane if driving slower than regular traffic



Keep right unless passing



Passing lane ahead



Do not pass



Two-way traffic — keep right unless passing



Keep right of the divider



No stopping between here and the next no-stopping sign



No stopping during posted times between here and the next sign



No bicycle riding beyond this point



No right turn on red light

## School, playground and crosswalk signs

These signs tell you the rules to follow in areas where you need to be extra cautious.



Pedestrian activated crosswalk — prepare to stop if the light is flashing



Pedestrian crosswalk — yield to people crossing



School crosswalk — yield to pedestrians — if there is a crossing guard, follow directions



School zone — reduce speed when children are present



Playground nearby — be prepared to slow down



Playground zone — 30 km/h limit is in effect every day from dawn to dusk



School zone — 50 km/h limit is in effect from 8 a.m. to 5 p.m. on school days when children are on the roadway or shoulder



School zone — if the tab underneath only indicates the speed limit, that limit is in effect from 8 a.m. to 5 p.m. on school days



School zone — the tab underneath indicates the speed limit and the hours that it is in effect (in this case, the 30 km/h limit is in effect from 8 a.m. to 5 p.m. on school days)

## Lane use signs

Signs showing which lanes may be used to turn or go straight are mounted above the lane or at the side of the lane before the intersection. If you are in a designated lane, you must follow the direction indicated by the arrows. You may not move into or out of a designated lane while you are in an intersection.



Turn left only



Continue straight only



Go through or turn left



Go through or turn right



Vehicles from both directions must turn left, no through traffic allowed



Vehicles in both these lanes must turn left

## Turn control signs

Turn control signs are mounted directly above the intersection. You must follow the direction of the arrow.



Left turn only



Go straight only — no turns



Turn right or left only



No right turns during posted times

## Parking signs

Parking signs let you know where and when you are allowed to park. You may receive fines or your vehicle may be towed (or both) if you park illegally.



Time-limited parking during posted times



Do not park here



Parking is not allowed during posted times



Parking only for vehicles displaying the disabled parking sign and carrying a person with disabilities

## Reserved lane signs

A white diamond painted on the road surface marks reserved lanes. Reserved lane signs are also placed over or beside lanes that are reserved for certain vehicles such as buses or high occupancy vehicles (HOVs). Other HOV signs may give additional information on who may use the HOV lane.



Only buses in this lane



Only buses and HOVs in this lane — may show how many people must be in the HOV



Curb lane of cross street ahead is a reserved lane

## Warning signs

Most warning signs are yellow and diamond-shaped. They warn of possible hazards ahead.



Winding road ahead



Hidden side road ahead



Curve ahead — slow down



Merging traffic ahead



Sharp curve ahead — slow to suggested speed



Road merges with another road — added lane to the right ahead



Right lane ends ahead



Divided highway ends ahead — keep right



Two-way traffic ahead



Road narrows ahead



Narrow structure ahead — often a bridge



Bump or rough road ahead



Road may be slippery ahead



Steep hill ahead — slow down



Stop sign ahead



Roundabout ahead



Signal lights ahead



Signal lights ahead — prepare to stop when lights are flashing



Pedestrian crosswalk ahead



School crosswalk ahead  
— this sign is fluorescent yellow-green



School bus stop ahead



Cyclists may be on roadway



Fire truck entrance ahead



Truck crossing ahead



Recommended exit speed — drive slower in poor conditions



Pavement ends ahead



Hazard or danger ahead  
— turn right or left



Watch for deer ahead



Opening bridge ahead



Watch for rocks on the road ahead

## Object markers

Pay special attention to object markers — they are mounted on obstructions.



Obstruction — keep right or left



Obstruction — keep right



Obstruction — keep left

## Construction signs

These signs warn of construction and maintenance work. You must pay attention to the warnings and obey the instructions on these signs. Obey traffic-control persons, travel within the posted speed, stay well back from all equipment and pass only when it is safe.



Detour ahead



Soft shoulder ahead — stay off



Construction ahead



Traffic-control person ahead



Crew working — obey posted speed limit



Survey crew — obey posted speed limit



End of construction zone speed limit



Follow the lighted arrow



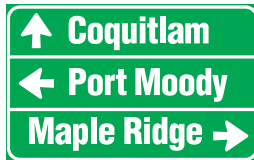
Blasting ahead — follow instructions on sign

## Information and destination signs

These signs give information about destinations, route numbers and facilities. Here are a few samples.



Destination sign — distances are in kilometres



Directional sign



Trans-Canada Highway route marker



Primary highway marker sign



Hospital nearby



Gas available ahead



Accommodation ahead



Travel information ahead

## Railway signs

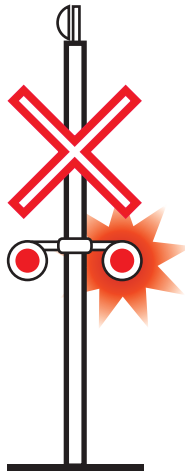
Public railway and highway crossings are indicated with signs or pavement markings and may also have mechanical or electrical warning devices for your protection. Watch for them and remember you must always yield to trains.



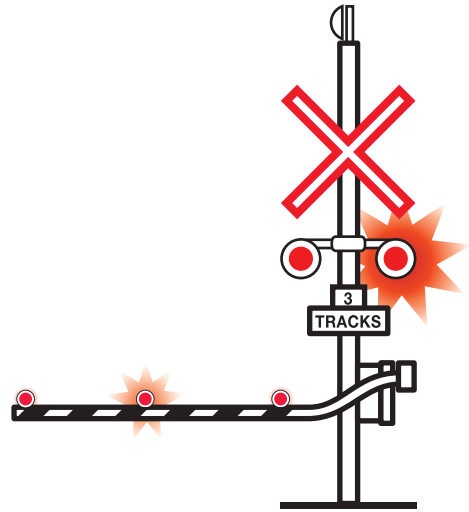
Railway crossing ahead — be prepared to stop



Railway crossing on side road ahead — be prepared to stop



Railway crossing — stop, then proceed when it is safe



Railway crossing — stay stopped until the gate is fully raised

## Signals

Lighted signals are a way of controlling traffic flow.

### Lane control signals

Lane control signals are placed over lanes to indicate which ones are open for driving and riding.



Do not drive in this lane



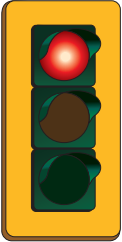
Move out of this lane and into a lane with a green arrow. If the lane control signals over all of the lanes are flashing yellow, slow down and proceed with caution



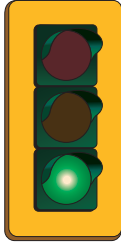
Drive in this lane

## Traffic lights

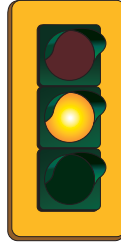
Traffic lights are used to help organize the flow of traffic. Generally, a red light means “stop,” a yellow light means “caution” and a green light means “go.” These signals can have slightly different meanings if they are flashing or if they are shaped as arrows rather than circles. In some places green arrows may flash; in others they may not.



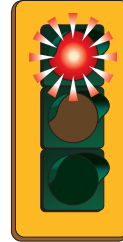
Steady red — stop — after coming to a full stop, you may turn right or turn left onto a one-way street unless a sign forbids it



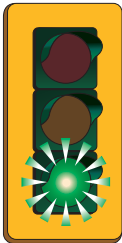
Steady green — continue if the intersection is clear



Steady yellow — slow down and stop before the intersection unless you can't safely stop in time



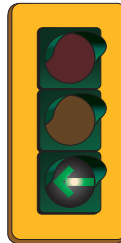
Flashing red — stop, then continue only when it is safe



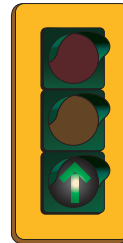
Flashing green — pedestrian-controlled light — go only if the intersection is clear



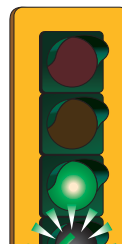
Flashing yellow — slow down and proceed with caution



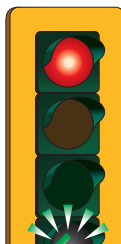
Green arrow — turn in the direction of the arrow



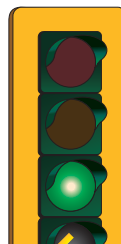
Green arrow — no turn permitted; go straight through only



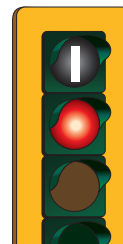
Flashing green arrow with a steady green light — may turn in the direction of the arrow or proceed



Flashing green arrow with a steady red light — left turn allowed; through traffic must stop for red light



Yellow arrow — advance left turn signal is about to change, slow down and stop before the intersection unless you can't safely stop in time



Transit priority signal — steady white rectangular light — only buses may go on this signal

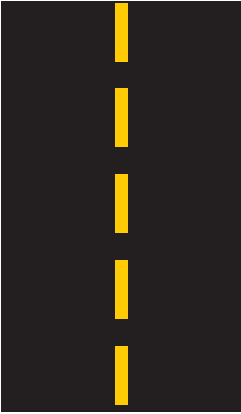


## Road markings

Road markings give you warnings or direction. They are painted on the roadway, curbs or other surfaces. It is illegal to drive over freshly painted, wet pavement markings.

### Yellow lines

Yellow lines divide traffic moving in opposite directions. If there is a yellow line to your left, there will be traffic coming towards you on the other side of that yellow line.



Broken line — passing is allowed when safe



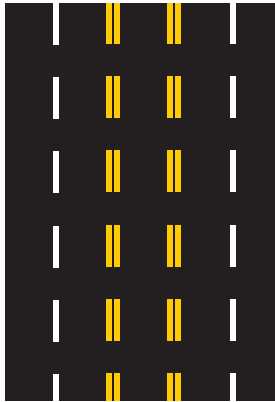
Broken line and solid line — you may pass only when it is safe and the broken line is on your side



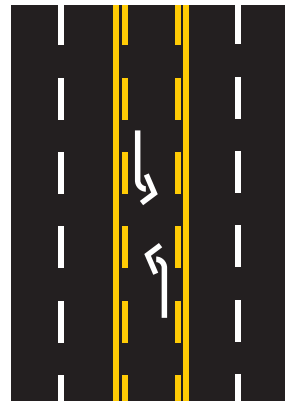
Double solid line — no passing allowed



Single yellow line — no passing allowed



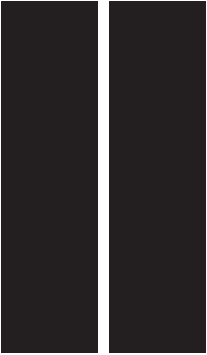
Double broken yellow line — lane is reversible — lane control signal will show whether you may use this lane



Two-way left-turn lane — drivers travelling in opposite directions share this lane for left turns — markings may be reversed (solid lines inside the broken lines)

## White lines

White lines are used to separate lanes of traffic moving in the same direction. White lines also mark crosswalks, stopping positions and the right shoulders of highways.



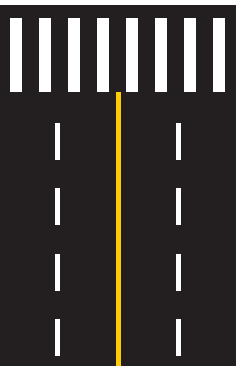
Solid line — do not change lanes



Broken line — lane changing is allowed when safe



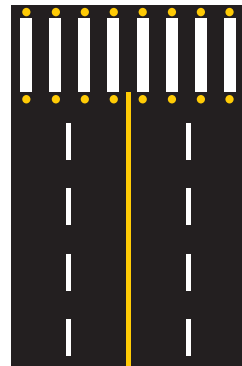
Stop line — stop before this line



Pedestrian crosswalk — stop for pedestrians in the crosswalk



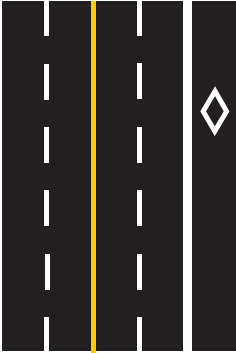
Pedestrian crosswalk — stop for pedestrians in the crosswalk



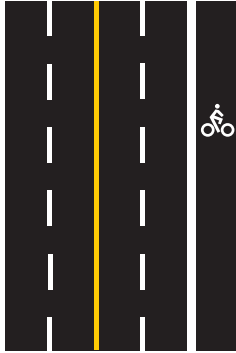
Pedestrian-activated crosswalk with illuminating lights in pavement — stop for pedestrians in the crosswalk

## Reserved lane markings

These markings set off lanes for HOVs, buses and bicycles. HOV lanes are marked with thick solid or broken lines and white diamond symbols.

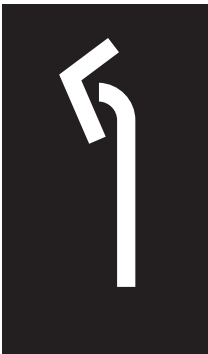


Reserved lane — additional signs or markings state which vehicles are allowed



Bicycle lane — for cyclists only — cyclists must travel in the same direction as the traffic beside them — the lane is marked with an outline of a bicycle and sometimes with a diamond

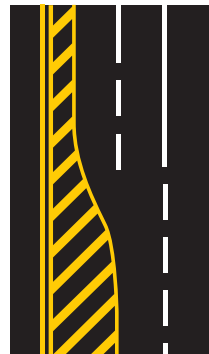
## Other markings



Vehicles in this lane must turn left



Vehicles in this lane must go straight or turn left



Painted island — keep to the right and do not drive on or over

## in this chapter

- Understanding intersections
  - types of intersections
  - stopping at intersections
  - right-of-way at intersections
- Using lanes correctly
  - lane tracking and lane position
  - turning lanes
  - u-turns
  - reserved lanes
  - pulling into a lane
  - passing
  - merging
  - highway or freeway entrances and exits
  - cul-de-sacs
  - turning around
- Parking tips and rules

## smart riding tip

Treat an unmarked T-intersection the same way as any other uncontrolled intersection.

## smart riding tip

If a traffic control person is directing traffic, you must follow that person's directions.

**Chapter 4, signs, signals and road markings**, gave you information about the most common signs, signals and road markings you will see when riding. This chapter gives you the information you'll need to help you ride safely at intersections, use lanes correctly and park legally.

## Understanding intersections

Intersections are places where a number of road users cross paths. There is often a lot of activity in intersections, so it's important to be alert. Remember that other road users may be in a hurry, and may want to move into the same space that you are planning to move into.

### Signalling

Signals are important — they let other traffic know what you are intending to do. You should signal when preparing to:

- turn left or right
- change lanes
- park
- move toward, or away from, the side of the road.

### Types of intersections

#### Controlled intersections

A controlled intersection has signs or traffic lights that tell you what to do. To ride safely in these intersections, you need to know what the signs and signals mean, and also the right-of-way rules. But always be cautious. Other drivers may not be paying attention to the signs and signals.

#### Uncontrolled intersections

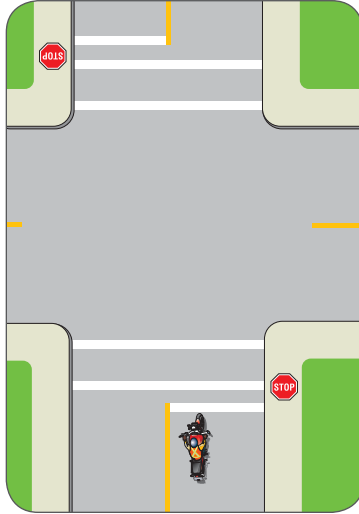
Uncontrolled intersections have no signs or traffic lights. They are usually found in areas where there isn't much traffic. But they can be dangerous places because you may not be expecting cross traffic or pedestrians.

As you approach, slow down and look out for other road users. Scan the intersection from left to right. If another vehicle has arrived at the intersection before you, slow down and yield. If two vehicles arrive at the same time, the vehicle on the left must yield to the vehicle on the right.

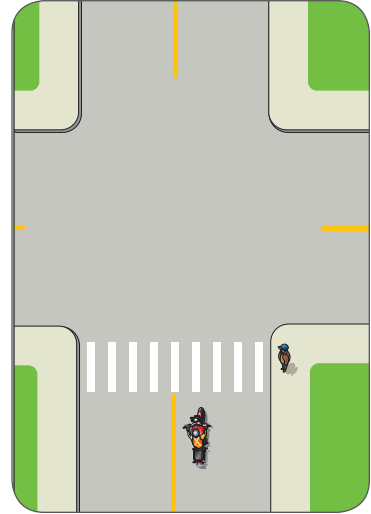
Be careful when you want to turn left where other traffic is approaching from the opposite direction. Yield to traffic that is in or near the intersection. If you are approaching the intersection intending to go straight through and a vehicle is already in the intersection turning left, you should yield.

## Stopping at intersections

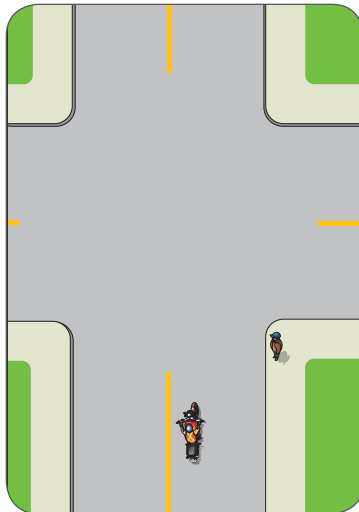
There are rules about where you should position your motorcycle when you stop at an intersection:



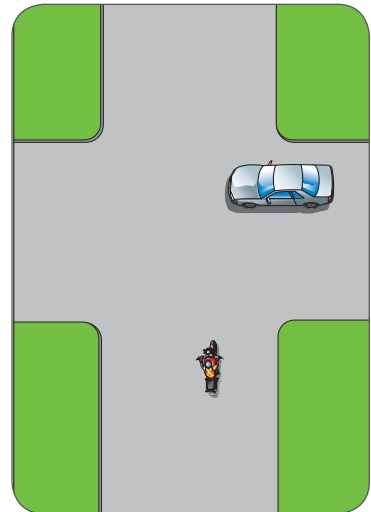
*Where there is a stop line, stop just before the line.*



*Where there is a crosswalk but no stop line, stop just before the nearest crosswalk.*



*Where there is an unmarked crosswalk, stop where you would if there were a marked crosswalk.*



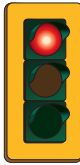
*Where there is no stop line, no crosswalk and no sidewalk, stop just before you enter the intersection.*

**smart riding tip**

Right-of-way is not something to be taken. It is something to be given.

**smart riding tip**

Occasionally, traffic lights stop working properly. The lights can go out or all four lights can start flashing. Treat the intersection like a four-way stop if this happens.

**Right-of-way at intersections**

Right-of-way rules determine who should yield when more than one road user wants to move into the same space. It's important to know these rules because they keep traffic moving in an orderly way. But remember that you can't always count on others to follow the rules. And even if other traffic should yield, it's still your responsibility to do all you can to avoid a crash.

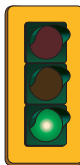
For information on right-of-way rules for crosswalks and railway crossings, see **chapter 7, sharing the road**.

**Intersections controlled by traffic lights**

Most people know who must yield at intersections controlled by traffic lights, but they may not understand how to correctly respond to these lights. Here are some pointers that will help you stay safe at intersections:

**steady red light** — a red light means that you must come to a complete stop. You must wait for the light to turn green before you go straight ahead.

After you have stopped and made sure the intersection is clear of all vehicles, cyclists and pedestrians, you may turn right. Watch for signs prohibiting you from making these turns on a red light.



**steady green light** — green means go only if the intersection is clear and it is safe to do so.

- **stale green light** — a stale green light is one that has been green for a long time, and is about to turn yellow. If you didn't see the light turn green, then it may be stale. Look for additional clues.
  - Are there a lot of cars lined up on the cross street waiting for the light to change?
  - In many areas, the crosswalk signal will change from a white figure to an orange hand just before the light turns yellow, or will show how many seconds are left before the traffic light will change.
- **point of no return** — as you approach a stale green light — taking into consideration your speed, the road conditions and the traffic behind you — decide on a point where you will no longer be able to stop safely. This is sometimes called the point of no return. When you reach this point, keep on going even if the light changes to yellow. You need to judge accurately so you won't be in the intersection when the light turns red.
- **fresh green light** — a fresh green light is one that has just turned green. Don't move forward until you've scanned the intersection to make sure it's clear.

**fast fact**

It is illegal to back up into an intersection or over a crosswalk.



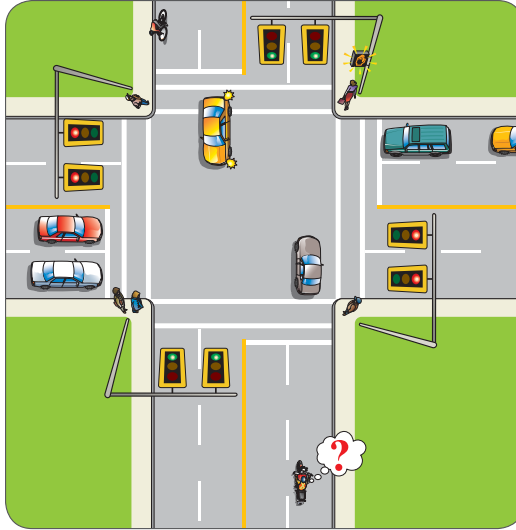
**steady yellow light** — yellow means that the signal is about to turn red. You must stop before you enter the intersection, unless you can't safely stop in time.

Sometimes riders panic if they are in an intersection waiting to make a left turn and the light turns yellow. In this situation, remember that you are legally allowed to complete your turn. But watch carefully for other vehicles, especially oncoming drivers trying to beat the red light.

What are the clues that tell you this green light is stale?

### smart riding tip

If you think it might be difficult and unsafe to make a left turn, consider going straight, turning right at the next intersection and going around the block.



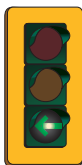
- making a left turn on a green light — When you're making a left turn, you must yield to oncoming traffic and wait for a safe gap before you turn.



**flashing green light** — watch for pedestrians, who may activate the pedestrian traffic light to change to yellow and then to red. Even if the pedestrian traffic light is not activated, traffic on the side street is facing a stop sign, and after stopping may move into the intersection when it is clear and safe to do so.

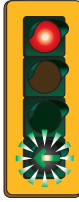
### Left turn signals

Some intersections have special turn signals or designated lanes controlled by their own set of traffic lights to allow you to turn left. These are called protected turns. As long as the green arrow is shown, you are protected from through traffic — they are facing a red light.



**separate left signal** — some intersections have designated left-turn lanes controlled by their own set of traffic lights. A green arrow at the bottom of a separate set of traffic lights will tell you when to turn left. Traffic in the straight-through and right-turn lanes will be stopped by a red light on a different set of lights.

Once the green arrow has turned yellow, you must stop and wait for the next green arrow before turning.



**left signal on regular traffic lights** — other intersections have a left turn lane that is not controlled by a separate set of traffic lights. Here, the advance green arrow is located on the bottom of the main set of traffic lights.

A flashing green arrow allows you to turn left. Through traffic is facing a red light.

Once the green arrow has turned off, and the regular green traffic light is on, you may still turn left. But you must yield the right-of-way to pedestrians and oncoming traffic.

Sometimes these advance green arrows operate only during peak traffic hours.



**flashing red lights** — a flashing red light means that you must come to a complete stop. After you stop, you may move into the intersection when it is clear and safe to do so.

### Intersections controlled by stop signs

A stop sign always means that you must come to a complete stop. Once you've stopped, carefully check the intersection. Whether you go or wait depends on the type of intersection and the other traffic around you.



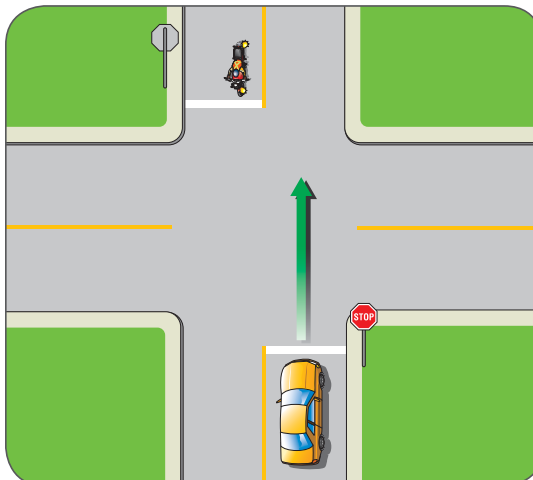
**two-way stops** — if two streets intersect and only one of the streets has stop signs, then the other street is a through street. You must yield the right-of-way to traffic on the through street. If you're stopped at one of these types of intersections, wait until there is a safe gap in the traffic on the through street before going through or turning.

If two vehicles are stopped at a two-way stop and one of the drivers or riders wants to turn left, the one who wants to turn left must yield the right-of-way. There is one exception: if the left-turning vehicle is already in the intersection and has started to make the turn, the other vehicle must yield.

#### smart riding tip

If a traffic control person is directing traffic, you must follow that person's directions.

These vehicles arrived at this two-way stop at the same time. The rider wants to turn left. The driver wants to go straight. Who should go first?





### smart riding tip

If there is any doubt about who should go first, or if there is any chance of a crash, it's always better to yield the right-of-way to the other person. Remember, as a motorcycle rider, you are vulnerable.



**four-way stops** — when there are stop signs at all corners:

- The first vehicle to arrive at the intersection and come to a complete stop should go first.
- If two vehicles arrive at about the same time, the one on the right should go first.
- If two vehicles are facing each other and have arrived at the intersection at about the same time, the one making a left turn must yield to the one going straight through.

### Intersections controlled by yield signs

A yield sign means that you must let the traffic on the through road have the right-of-way. You may enter the intersection without stopping if there are no pedestrians, cyclists or vehicles on the through road. But you must slow down (and stop if necessary) and wait for a safe gap if there is traffic on the through road.

### Traffic circles and roundabouts

These are found in some areas to help ensure safe passage of traffic through an intersection without necessarily stopping the flow of the traffic.

#### Traffic circles

Traffic circles are mostly found in residential neighbourhoods.

When you use a traffic circle:

- Slow down as you approach the circle.
- Obey any posted traffic control signs, such as “Yield” or “Stop” signs. If there are no traffic control signs, treat the intersection as an uncontrolled intersection.
- Yield to any traffic in the circle. If another vehicle arrives at the traffic circle at the same time as you do, yield to the vehicle on your right.
- Go around the traffic circle to the right (that is, in a counterclockwise direction).

You must turn right to enter a traffic circle and right again to leave it. Yield to vehicles that are already in the traffic circle. If another vehicle arrives at the traffic circle at the same time as you do, yield to the vehicle on your right.





This sign warns of a roundabout ahead.

## Roundabouts

Roundabouts are generally larger than traffic circles.

Some roundabouts have more than one lane. Lane use signs and markings may be displayed at the approaches to indicate where you can go in each lane when you are in the roundabout. Make sure you know where you want to go — and are in the proper lane to get there — before you enter a roundabout. Do not change lanes in a roundabout.

Roundabouts often have a truck apron around the central island which large vehicles may use to help them to get through the roundabout.

When you use a roundabout:

### smart riding tip

Emergency vehicles displaying flashing lights and sirens always have the right-of-way. If an emergency vehicle is approaching, avoid blocking a traffic circle or roundabout. Stop for the emergency vehicle before entering, or exit the traffic circle or roundabout and then stop to allow the emergency vehicle to pass.

- Make sure you know where you want to go before you enter a roundabout, and enter the correct lane to go where you want to go. Lane use signs or road markings will indicate which lane you need to use. If you want to turn left, make sure you are in the left lane. If you intend to turn right, use the right lane. If you intend to go straight, you may use either the left or right lane.
- Slow down as you approach the roundabout.
- Yield to pedestrians that may be crossing or about to cross in the crosswalk located in advance of the roundabout.
- Yield to any traffic already in the roundabout.
- Go around the roundabout in a counterclockwise direction.
- Do not change lanes in a roundabout.
- Do not ride alongside large vehicles such as trucks and buses in roundabouts, as they may need to use more than their lane to go through the roundabout.
- If you entered the roundabout in the left lane, stay in that lane. You may either go straight or turn left from that lane.
- When you exit, signal “right” in advance of your exit location.
- As you exit the roundabout, be prepared to yield to pedestrians who may be in the crosswalk where you are exiting.

Slow down when approaching a roundabout and yield to traffic already in it. Stay in the same lane that you approached the roundabout from. Do not ride alongside large vehicles such as trucks and buses in roundabouts.



In the example above, the motorcycle has entered the roundabout from the south in the right lane after first yielding to vehicles in the roundabout. The rider may either turn right at the east exit or continue straight and take the north exit.

The blue car entered from the south in the left lane, and has merged into the left lane in the roundabout. Because the blue car entered from the left lane, the driver can't immediately turn right at the first exit (east), but can take either the north or west exit.

The tractor-trailer combination entered the roundabout from the east in the left lane and the driver is going to take the south exit. Note that due to the length of the combination, the trailer is partially in the right lane, and the combination will be exiting in the right lane.

The driver of the green car must yield to the tractor-trailer already in the roundabout.



This sign warns to keep away from large vehicles such as trucks and buses in roundabout.

### Entering a roadway

When you are pulling out of a driveway, alley or parking lot onto a road, stop before the sidewalk or area where pedestrians may be walking. Then pull out carefully, yielding to traffic on the road and waiting for a safe gap.

## Using lanes correctly

In the last chapter, you learned about the signals, signs and pavement markings that tell you what lanes you can ride in. The next section tells you more about which lanes to use and how to use them.

## Which lane should you use?



Choose the lane that gives you the best vision and allows you to go where you want to go. On a multi-lane highway you should travel in one of the right-hand lanes. This is especially important if you are riding more slowly than other vehicles or if signs direct you to keep out of the left lane.

Just because you are riding at the speed limit does not mean you should continually ride in the left lane. This may cause other drivers to try to pass on the right, which may not be as safe as passing on the left.

When you're on freeways that have more than two lanes in each direction, you should ride in the centre lane or a right-hand lane, leaving the left lane for higher-speed traffic and passing vehicles. Riding in the centre lane may be more risky than the right lane because traffic may change into the centre lane from both the right and left lanes.

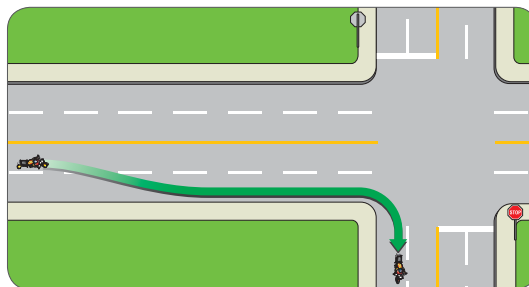
## Lane tracking and lane position

Before you make a turn, you need to get your motorcycle into the correct lane. Then you need to end up in the correct lane after you complete your turn. This is sometimes called lane tracking. As a rider, you also need to decide which section of the lane is safest for you to ride in. This is called lane position. To read more about lane position, see **chapter 6, see-think-do**.

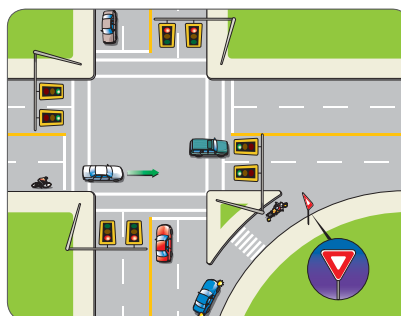
## Right turns

These illustrations provide information about lane tracking and lane position which will help you turn safely when you're making a right turn.

To turn right, move into the right-hand section of the right lane before you make your turn. Then turn into the right lane of the cross street. In some intersections, road markings allow you to turn right from a centre lane.

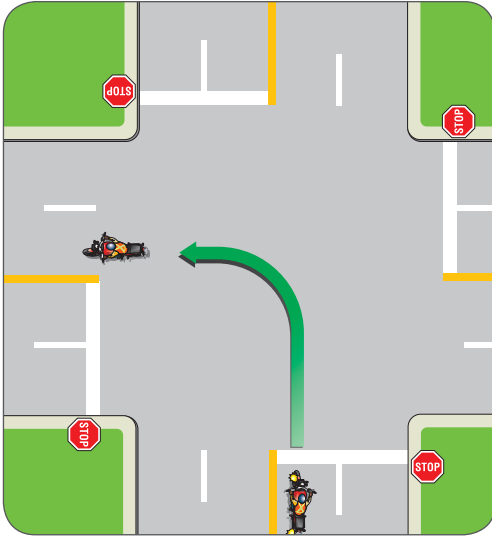


Some intersections have special yield lanes for vehicles turning right. To make a right turn, move into this lane and wait until there is a break in the traffic to complete your turn.

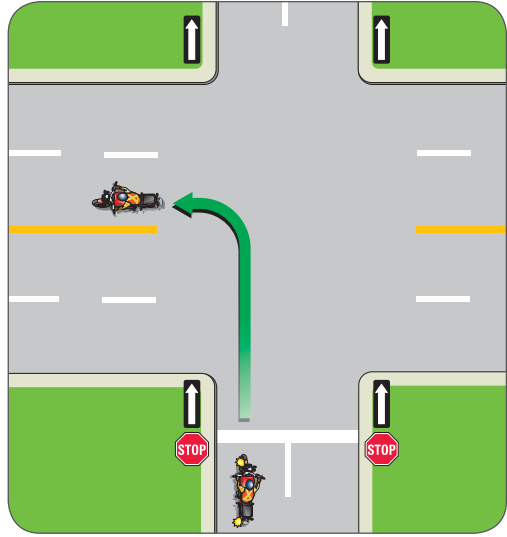


### Left turns

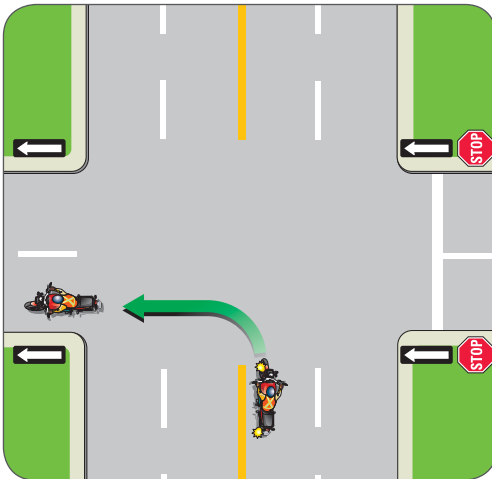
For left turns, it's sometimes hard to figure out which lane to turn into. These illustrations show you the correct lane tracking for different types of roads.



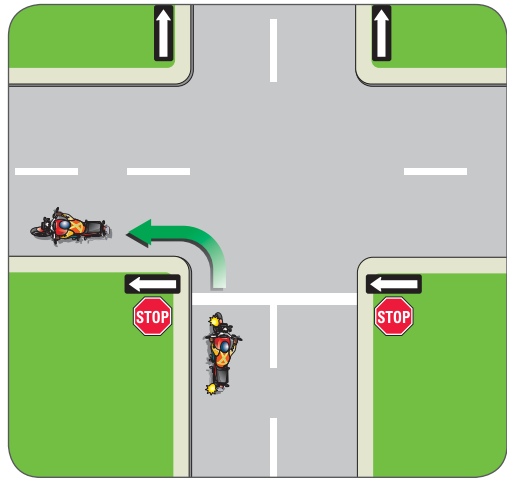
To turn left from a two-way road onto a two-way road, move into the centre lane and ride into the centre lane of the cross street.



To turn left from a one-way road onto a two-way road, turn from the left lane into the centre lane.



To turn left from a two-way road onto a one-way road, turn from the centre lane into the left lane.

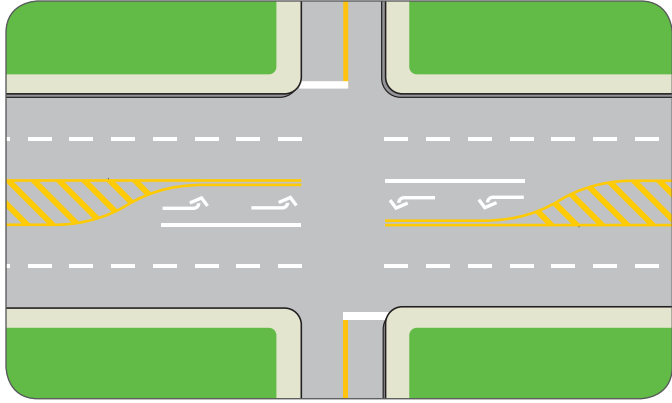


To turn left from a one-way road onto a one-way road, turn from the left lane into the left lane.

## Turning lanes

Some roads have special lanes for turning. As you approach an intersection, always check the signs and pavement markings to make sure you are in the correct lane to turn or to go straight through.

Turning lanes let you wait for a safe gap without holding up vehicles that are travelling straight through. Use the turning lane only if you are turning left.



## Multiple turning lanes



In large, complex intersections, there may be more than one right or left turn lane. Look carefully at the pavement markings, lane-use signs and signals. They will tell you what to do.

For example, the sign shown in the left column tells you that both the far-left lane and the lane next to it are used for left turns. If you are turning from the far-left lane, turn into the far-left lane. If you are turning from the lane next to it, turn into the lane next to the far-left lane.

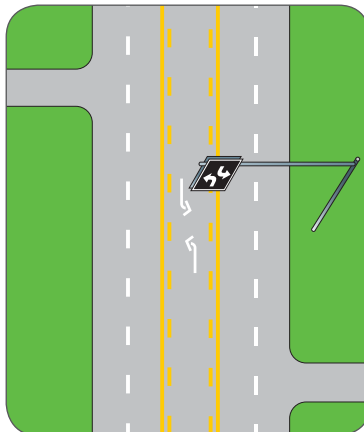
## Two-way left turn lanes



Two-way left turn lanes give left-turning vehicles coming from either direction a chance to turn without holding up traffic.

They can be handy for turning left in the middle of a block, such as turning into a driveway. When you see one of these lanes, remember that vehicles coming from the other direction also use this lane to turn left.

Drivers and riders from both directions share this centre lane when they want to turn left. Make sure there is enough space before you enter this lane. Remember to watch for vehicles coming from the opposite direction.



### Turns in the middle of a block

Most drivers expect other traffic to turn at an intersection. Sometimes you may wish to turn left in the middle of a block — for example, turning into a driveway. It's safer to plan your route so that you can make a right turn, but you may turn left — including turning left over a solid double yellow line — if you do this carefully and safely and don't impede other traffic, and there are no signs prohibiting such turns.

### U-turns



If you find you are going in the wrong direction, you may be tempted to make a U-turn. U-turns are often risky, and they are illegal:

- if they interfere with other traffic
- on a curve
- on or near the crest of a hill, where other traffic cannot see you within 150 metres
- where a sign prohibits U-turns
- at an intersection where there is a traffic light
- in a business district, except at an intersection where there is no traffic light
- where a municipal by-law prohibits making a U-turn.

When you are deciding whether or not to make a U-turn, consider some alternatives, like riding around the block or continuing on to a side road where you can turn more safely.



### Reserved lanes

Some traffic lanes are reserved for use by different types of vehicles. High occupancy vehicle (HOV) lanes and bus lanes help move more people in fewer vehicles. Bicycle lanes are designed to separate cyclists from motorists, for safety and efficiency.

### High occupancy vehicle (HOV) lanes

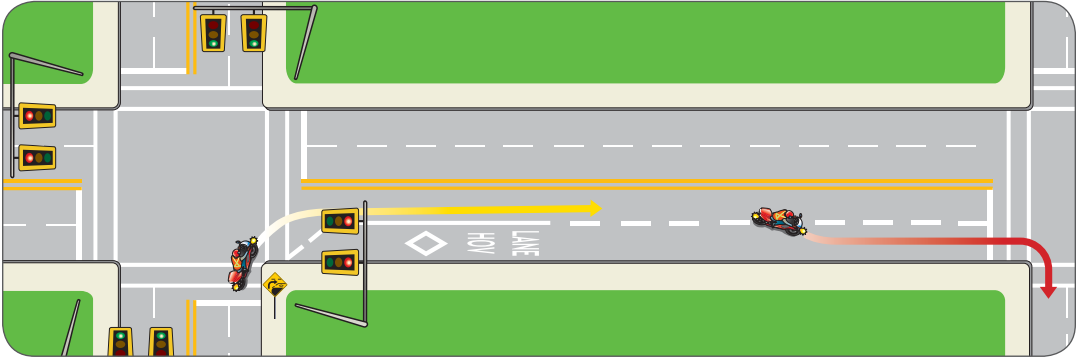
HOV lanes are reserved for buses and carpool vehicles. Motorcycles, bicycles, and taxis may also use these lanes on some roads. Watch for a sign saying "Motorcycles OK."

On freeways and main highways, HOV lanes are along either the median or the shoulder of the roadway. On city streets, HOV lanes are usually directly beside the curb. Most HOV lanes operate 24 hours a day, but some are only in operation at peak traffic times. Check the traffic signs carefully. They will tell you where the lanes begin and end, when they are in operation, and the minimum number of people that must be in the vehicle.

#### warning!

Travelling illegally in an HOV lane, bus lane or bicycle lane carries penalties.

Make sure you enter and exit an HOV lane where broken lines indicate a crossing point. Enter and exit with care — traffic in HOV lanes sometimes travels faster than the regular traffic. Make sure there is enough room for you to enter and exit safely.



The rider on the yellow motorcycle has seen the warning sign indicating that there is a reserved lane on the street they wish to turn onto. The rider should turn into the lane next to the reserved lane, unless they are entitled to ride in the reserved lane and wish to ride in it. To turn right off a street with a reserved lane, change lanes into the reserved lane where permitted and when safe to prepare for the turn.

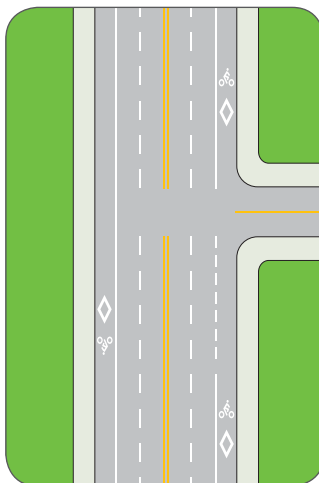


### Bus lanes

You will recognize a bus lane by a sign that has a diamond symbol and a picture of a bus. Only buses and sometimes cyclists are permitted to travel in lanes marked with this sign. Motorcycles are not permitted to travel in bus lanes.

Vanpools (vehicles with six or more occupants) may also travel in a bus lane if a “Vanpool Permitted” tab is shown below the bus lane sign.

### Bicycle lanes



Bicycle lanes are lanes reserved for cyclists. Sometimes you will need to cross a bicycle lane to turn right, or to pull to the side of the road. Take extra care when you do this. The rules for bicycle lanes are:

- don't ride, stop or park in a bicycle lane.
- you may only cross a bicycle lane if the white line is broken or to turn into or out of a driveway.

Be sure to signal well ahead and yield to all cyclists whenever you must cross a bicycle lane.



### smart riding tip

Don't change lanes at an intersection. You could confuse other road users and cause a crash.

### smart riding tip

Don't speed up as someone is trying to pass you — it's illegal. Help the other driver get back into your lane by slowing down and making room.

## Pulling into a lane

Whenever you enter a lane, whether you are pulling into traffic or changing lanes, you must yield the right-of-way to the vehicles in the lane you are moving into. When you pull away from the roadside into a lane of traffic, you need to make sure you are not cutting anyone off. Watch carefully for smaller traffic like bicycles that may be approaching faster than you think.

The same rule applies when you are planning to change lanes. Make sure there is a large enough gap in traffic so that when you pull in front of another vehicle, that driver does not have to slow down to avoid crashing into you. Legally, you must signal when you change lanes.

## Passing

Passing involves moving into another lane — sometimes a lane of approaching traffic — and then back into your original lane. Remember, if you move into another vehicle's lane, you must yield the right-of-way to the vehicles in the lane you're moving into. Other traffic shouldn't have to change direction or slow down for you.

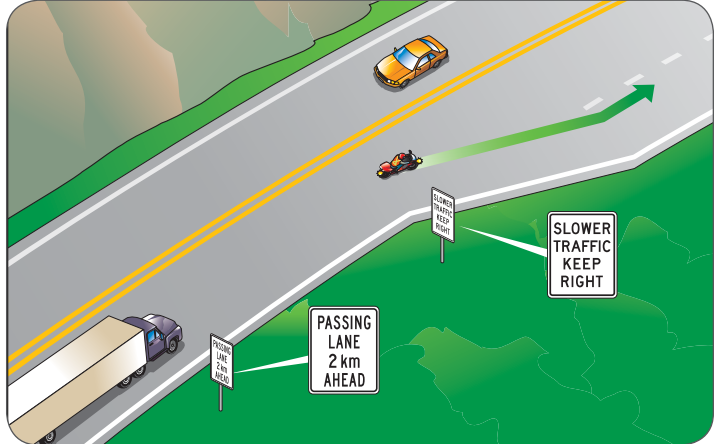
If you're planning to pass, make sure that you can do it safely and legally:

- pass on the right only on a roadway that has two or more lanes going in the same direction or if a driver ahead is turning left. Don't use the shoulder to pass.
- pass on the left only when it is safe to do so and lane markings permit it. You're not permitted to pass over double yellow solid lines, and it's risky to pass over a single yellow solid line.
- keep within the speed limit when passing.
- make sure you know whether the pavement markings allow you to pass. See **chapter 4, signs, signals and road markings**, for more information.

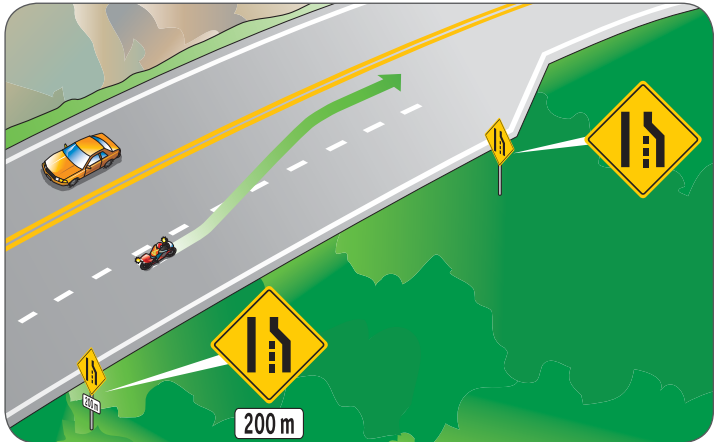
## Passing lanes

Some highways have special passing lanes. These lanes let slower vehicles move into the right-hand lane so that faster vehicles can pass safely in the left lane.

A sign will tell you how far it is to the next passing lane. Keep right unless you are passing.



A sign will tell you when the passing lane is about to end. Vehicles in the right lane and the passing lane must merge before the passing lane ends.



## Merging

This sign tells you that the right lane will end soon.



If you're riding in a lane that ends ahead, you need to change lanes. Adjust your speed, keeping within the speed limit, and wait for a safe gap in the other lane.

If you're riding beside a lane that is about to end, help traffic in that lane to merge by adjusting your speed or by changing lanes.

## Highway or freeway entrances and exits

These lanes are designed to help you safely enter and exit the freeway.

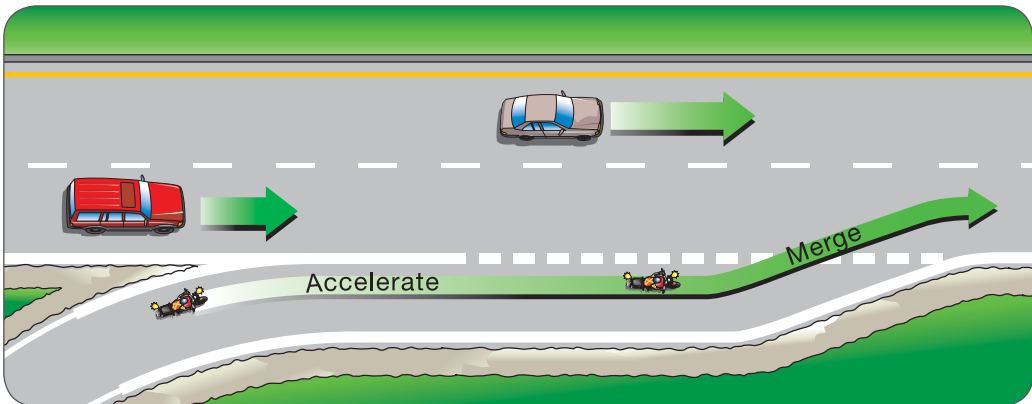
### Entrances

The entrance consists of an entrance ramp, an acceleration lane and a merging area.

#### warning!

Avoid stopping in the acceleration lane or merging area. You could risk being rear-ended.

- Use the entrance ramp to scan the freeway traffic for a safe gap.
- The acceleration lane is divided from the rest of the roadway by a solid white line. Use this lane to match your speed to the speed of traffic on the freeway.
- The merging area is divided from the freeway by a broken white line. Use this area to find a safe gap to merge with freeway traffic. Be aware that cycling is permitted on some freeways, and be careful not to cut in front of a cyclist.

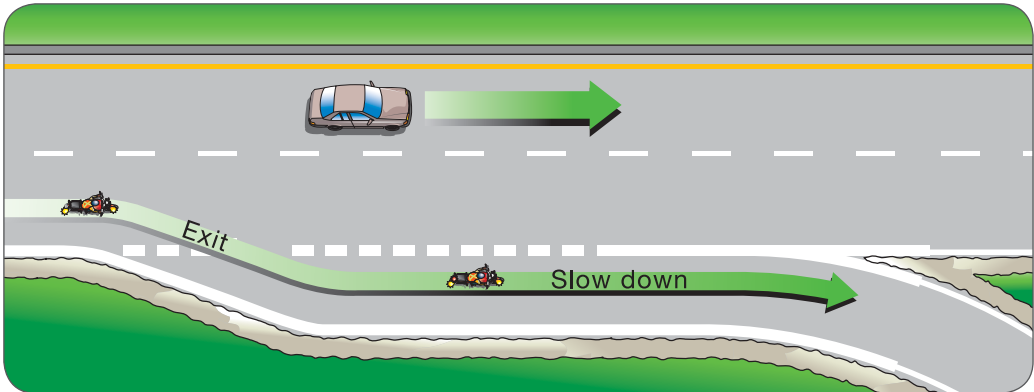


A highway entrance lane gives you a short distance to match your speed to the vehicles already on the highway. Observe the freeway traffic, make sure you have a space that is safe to move into, signal your intention and then move into traffic.

## Exits

The exit lane allows you to move off the freeway and reduce your speed. Most freeway exits are numbered. Before you start your trip, check a map to see which exit you'll need to take.

That way you can move to the right lane in plenty of time for the exit.



Signal your intention to turn off the highway, and maintain your speed until you enter the exit lane. Then slow down gradually as you prepare to enter roads with lower speed limits.

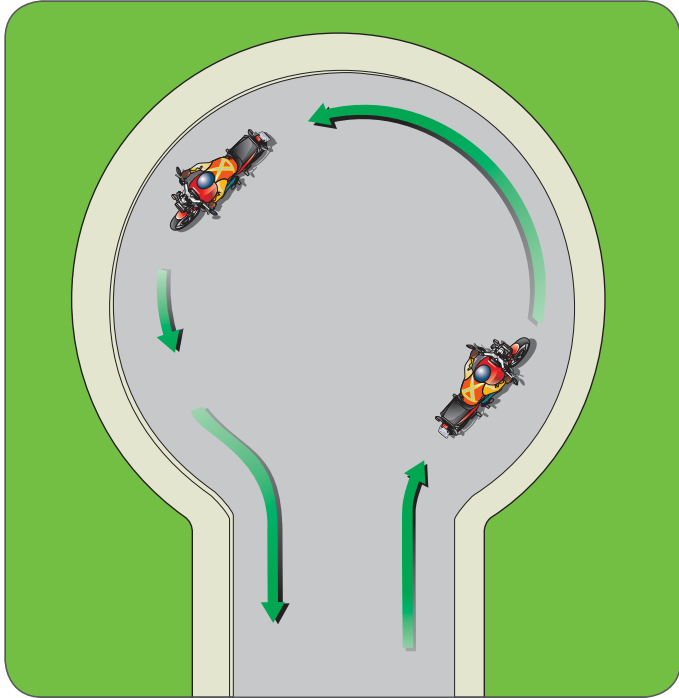
## Strategies: freeway courtesies

When you're riding in the right lane of a freeway, other drivers may try to merge from an entrance lane. It's not always easy for them to find a safe gap. Use these pointers to help them merge safely:

- pull over into the left lane (if it's safe) to give them room to merge onto the freeway.
- adjust your speed to allow a large enough gap for them to move safely into.

## Cul-de-sacs

A cul-de-sac is a street that's closed at one end. Most cul-de-sacs are designed so that you can turn a car around without needing to back up. Slow down and keep to the right. Most cul-de-sacs are in residential areas, so watch carefully for children playing, vehicles coming out of driveways and other hazards.



A cul-de-sac.

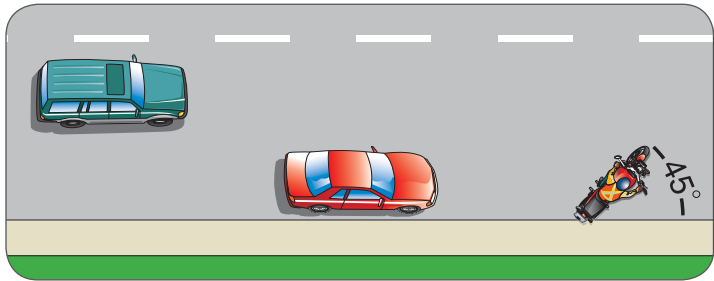
## Turning around

Sometimes you can turn around by doing a series of turns at intersections or by turning in a cul-de-sac. You may also be able to do a U-turn.

Before turning around, you need to make sure it is clear and safe and that there is no other traffic nearby.

## Parking tips and rules

Park where it's safe and legal. Signs, curb markings and common sense will tell you if you are allowed to park. You should park where you are not blocking traffic and where others can clearly see you. If you park where you shouldn't, you could be a serious hazard to others, you could be fined or your motorcycle could be towed.



When you park:

- if you're on a street, park on a 45-degree angle to make your motorcycle visible to drivers looking for a parking space. This also gives you maximum visibility when pulling out into traffic.
- choose firm, level ground. If you must park on a slope, face uphill and leave the motorcycle in gear.
- look out for "Motorcycle OK" signs that indicate special parking for motorcycles.

It's illegal to park:

- on a sidewalk or boulevard
- across the entrance to any driveway, back lane or intersection
- within five metres of a fire hydrant (measured from the point at the curb beside the hydrant)
- within six metres of a crosswalk or intersection
- within six metres of a stop sign or traffic light
- within 15 metres of the nearest rail of a railway crossing
- in a bicycle lane
- on a bridge or in a highway tunnel
- where your motorcycle obstructs the visibility of a traffic sign
- where a traffic sign prohibits parking or where the curb is painted yellow or red
- in a space for people with disabilities or in the yellow-striped access aisles beside these parking spaces. (These aisles provide access for people who use wheelchairs, and your motorcycle could be damaged by lift equipment.)

### smart riding tip

When parking in a stall, it's usually safer to back in so you don't have to back out. Better still, if there are two empty stalls facing each other with no barrier between them, ride through one into the next so the motorcycle is facing out.



## in this chapter

- See
  - observation
  - hazard perception
- Think
  - assess the risk
  - choose a solution
- Do
  - speed control
  - steering
  - space margins
  - communication
- Using see-think-do

In the previous chapters, you began developing your smart riding skills by learning the basics of riding:

- being a thinking rider
- maintaining a safe motorcycle
- wearing the right gear
- understanding signs, signals and markings
- knowing the rules of the road.

This chapter will bring together all these concepts and describe how to use them as part of **see-think-do** — a riding and driving strategy that helps you to be a safe and competent rider.

**see** — scan for hazards. Pay attention to other road users and the areas where hazards could occur.

**think** — decide which hazards are the most dangerous. Think quickly about possible solutions. Decide on the safest solution.

**do** — react appropriately to keep yourself and others safe.

## see-think-do

Whenever you ride, your eyes should be scanning the area around you to gather information. Good observation means knowing how and where to look. The next step is hazard perception — knowing what to look for.

### Observation

Good observation involves looking ahead, beside and behind.

#### Thinking like a rider

*You're riding along a city street, keeping your eyes moving all the time. You check your mirrors — the car behind is keeping its distance. There's an intersection ahead and the light is green. You scan the intersection. It looks clear. But the oncoming driver has his left turn signal on. Will he see you coming through or will he cut in front of you? You check your mirrors — is there enough space behind you if you have to slow down quickly?*



### Strategies: the observation cycle

Always keep your eyes moving while you are riding:

- look at least 12 seconds ahead
- scan from one side of the road to the other, checking for potential hazards
- glance in your mirrors to keep track of what is happening behind you.

Then start all over again. You should complete the whole cycle every five to eight seconds.

### Observing ahead

Make sure you know what's coming up on the road by scanning at least 12 seconds ahead. This means looking one to two blocks ahead in city riding and half a kilometre ahead on the highway. This will give you time to prepare for a potential hazard instead of being taken by surprise.

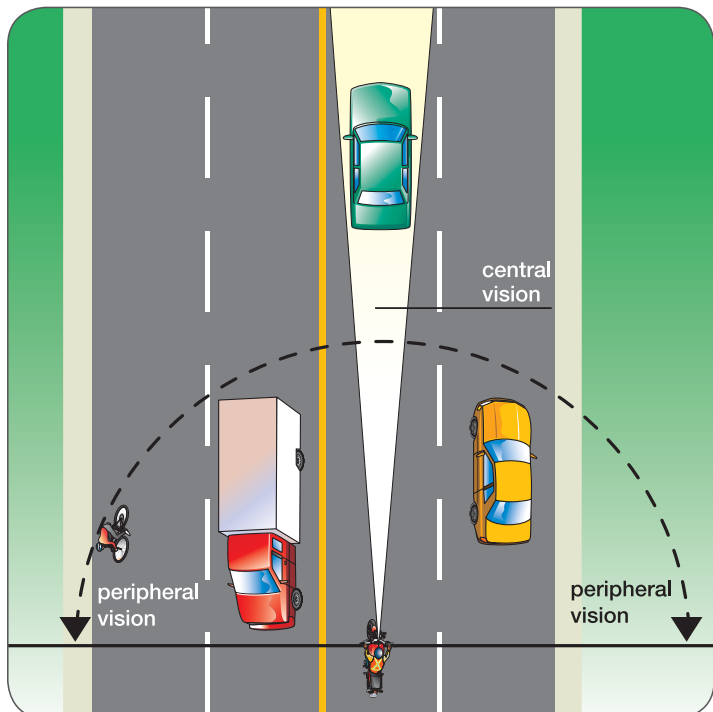
As you look ahead, scan to the left and right to see what is happening along the sides of the road. If you see parked cars, be careful. A child may walk out from between them, or a door could swing open in front of you.

#### crash fact

In two-vehicle crashes, 79 per cent of the motorcycles involved were impacted in the front.

*National Highway Traffic Safety Administration (1995)*

It is easiest to see things that are in your central vision (directly in front of you). But it is important to pay attention to things outside your central vision. Peripheral vision allows you to see more than what is directly in front of you.



**smart riding tip**

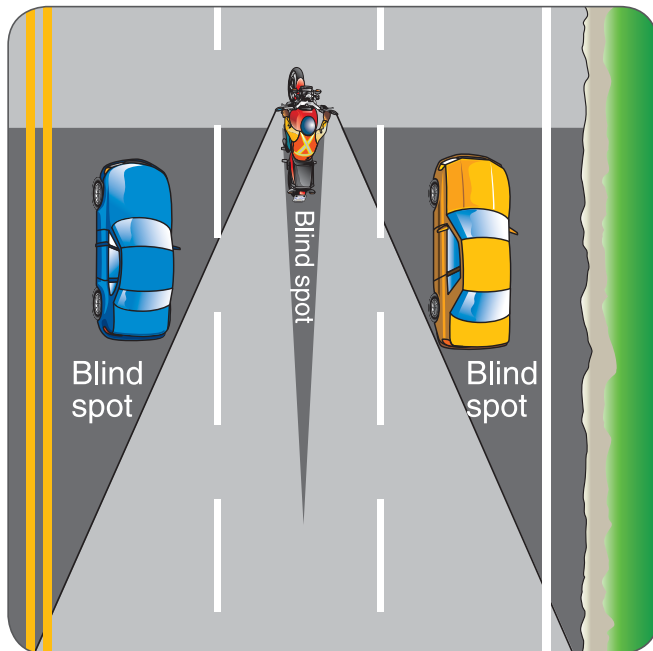
Try sitting on your bike and finding the areas you can't see even when you use your mirrors.

**Observing behind**

**Mirrors** — your mirrors let you know what is happening behind you. Adjust them for maximum vision, trying to ensure that your elbows or shoulders aren't blocking your rear view. Look in your mirrors:

- every few seconds, to check what's behind you
- before you slow down or stop, to make sure traffic behind will have room to stop for you
- whenever you plan to change road position or direction, to make sure that no other road user has moved up beside you.

**Blind spots** — even when your mirrors are properly adjusted, there are large areas behind and beside you that you can't see in your mirrors. These are called blind spots. If you see a vehicle behind you in your mirrors, keep track of it. If it moves up and disappears from your view, you will know that it is probably travelling in one of your blind spots.



There are blind spots beside and behind your motorcycle. Some motorcycles have a blind spot directly behind that is large enough to hide a car.

**Shoulder checks** — whenever you plan to change your direction or road position, do a shoulder check to make sure the blind spot on that side is clear. For example, when you are about to turn right, quickly check over your right shoulder to make sure no one is in that space. It's easy to miss seeing a cyclist who has come up beside you.

To shoulder check, look at least 45 degrees behind your shoulder in the direction you plan to move. Often you will need to shoulder check more than once to make sure the space you plan to move into is still clear.



### Strategies: making your move

Use a mirror and shoulder check whenever you plan to:

- pull out from the side of the road
- pull over to the side of the road
- change lanes
- change lane position
- turn.

### crash fact

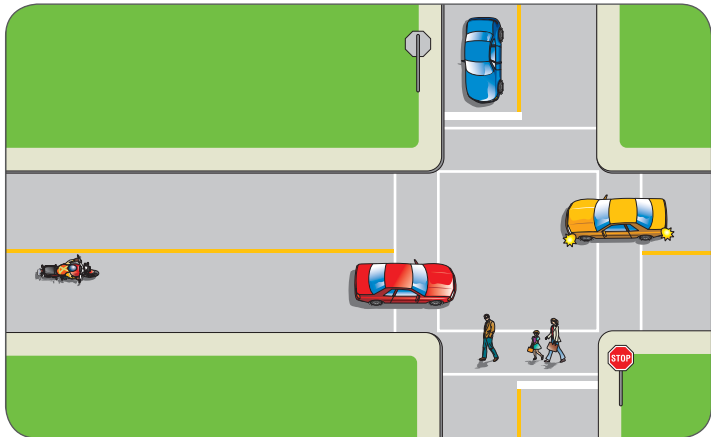
Forty per cent of crashes in B.C. happen at intersections.

*Traffic Collision Statistics: British Columbia (2007)*

Look well ahead as you approach an intersection. What could happen in this scene?

### Observing at intersections

Look well ahead as you approach an intersection. Check for signs, signals and other clues about whether you'll need to stop.



**Approaching** — scan the road you are crossing. Look left, centre and right, and glance to the left again. If an oncoming vehicle is turning left, take extra care because the driver may not see you. Also check crosswalks before you drive through them to make sure they are clear.

**Stopping and starting up again** — as you slow down to stop, check your mirrors for traffic behind you. Then make sure you have a clear view of the intersection. If your view is blocked after you have stopped, you may need to edge forward into the intersection to see clearly before you ride through.

**Turning** — shoulder check to make sure a cyclist or other road user hasn't come up beside you. Scan the intersection before you begin to move forward. Make sure that your eyes are looking in the direction you want to go once you begin your turn.

## Hazard perception

### Thinking like a rider

*You're riding along a residential road. The driver of the car in front of you seems uncertain of where he wants to go. He is slowing down and then speeding up. You decide to keep your distance. You glance in your left mirror, and see that the car behind you is getting a bit too close. While you are deciding what to do, you ride past a parked van that was blocking part of your vision, and you see a large patch of black oil on the roadway ahead ...*

Riding safely means looking out for hazards. A hazard is anything in the riding environment that could harm you or other road users. Hazard perception is the skill of identifying these hazards. To share the road safely, train yourself to look for other road users, objects and road surfaces that might cause problems. As you ride, your eyes should be moving, and you should be thinking ahead about where hazards could occur.

The riding environment includes everything around you, including other road users, road conditions, weather conditions and the activities going on at the side of the road that might affect you.



### Space conflicts

A space conflict happens when two road users try to move into the same space at the same time. To ride safely, you need to keep areas of space — called space margins — around your motorcycle. A car moving up too close behind could cause a problem if you have to stop suddenly. Some other space conflicts are:

- an oncoming vehicle turning left in front of you
- a pedestrian who intends to cross the road
- a cyclist moving up beside you when you are planning to turn right.

### Surprises

Anything unpredictable is a hazard. You need to think well ahead and ask yourself what could possibly happen in the riding environment. A driver in front who is slowing down and speeding up could suddenly slam on the brakes when he finds the address he is looking for. Some other surprises are:

- a driver weaving back and forth who may be impaired
- a poorly loaded pickup truck — something might fall
- an open area of road where a sudden gust of wind could come up.

### Vision blocks

Having your view blocked is a hazard. A parked van can block your view of hazards ahead. If you are cresting a hill or going around a sharp curve, you often can't see what's ahead. Some other vision blocks are:

- trees or fences near an intersection
- a large truck in the next lane
- fog, rain or darkness.

#### warning!

Never pass when you are approaching the top of a hill. You can't see the hazards that might be on the other side.

Be extra cautious when anything blocks your view. What could the rider miss in this scene?



## think about

You are about to pull away from the side of the road into traffic. Where should you look? What should you look for?

## Poor road surfaces

Car drivers on four wheels can drive over most road surfaces causing nothing worse than a rough ride. Riders on two wheels can easily lose traction on rough or slippery surfaces and fall. Always scan the road surface ahead to see what hazards may be there. Some poor road surfaces are:

- loose gravel
- wet leaves or other debris
- railway tracks
- wet or icy roads
- slippery road markings, oil and tar patches
- storm drains
- metal surfaces.

## smart riding tip

Never assume that other road users see you. Even if they have seen you, they may not have an accurate sense of your speed and distance.

## see-think-do

Whenever you ride, you will see hazards. To make good riding decisions, follow this two-step thinking process:

1. Assess the risk.
2. Choose the best solution.

## Assess the risk

### Thinking like a rider – part 1

*You're on a winding rural road and a light rain is falling. You're going up a long, steep hill that blocks your vision of what's up ahead. There is a car behind you, but it's keeping its distance.*



In this scene, there are two moderate risks. That light rain may make the road slippery, especially if a hazard appears and you need to stop quickly. The hill blocks your vision. Who knows what might be on the other side? If you are a smart rider, you'll slow down and be cautious. Move to the centre of your lane, just in case something is in your lane over the crest of the hill.

### Thinking like a rider – part 2

*As you reach the crest of the hill, this is what you see: a large truck is in the oncoming lane and, coming toward you in your lane, is a red sports car passing the truck. You look at the right shoulder of the road. It looks pretty soft and sandy — not a good surface to ride on.*



What is the most dangerous risk here?

When you find yourself in a situation with more than one hazard, what do you do? You need to figure out which hazard is the most dangerous. Which one requires action right away?

### Choose a solution

#### Thinking like a rider – part 3

*Here you are with a red sports car coming toward you in your lane.*

*What solutions can you think of? You could:*

- slow down
- steer out of the way
- honk your horn or flash your brake light.

The solutions all have to do with speed control, steering, space margins and communication.

As you think of possible solutions, predict the possible outcomes of each one. Here is a slowed-down version of what your thinking process might be:

- **speed control**
  - If I slow down, is there room for the car to pull in front of the truck before it reaches me?
  - Can I slow down quickly on this slippery hill? Are my brakes and tires in good enough condition? Will I skid?
- **steering**
  - If I steer onto the shoulder, can I stay in control or will my bike go down?
- **space margins**
  - Do I have enough space in front to slow down safely? (Remember, the road may be slippery so you might not have much traction.)
  - If I slow down suddenly, is there enough space for the car behind me to safely slow down?
  - Is there enough space for me to move onto the shoulder?
- **communication**
  - If I honk the horn, will the driver hear it? (Remember, your horn isn't as loud as a car horn is.)
  - If I tap my brake to flash the brake light, will it help to warn the driver behind me that I'm slowing down?

### think about

You are passing an elementary school. A soccer ball rolls onto the road about half a block ahead. Assess the risk. What could occur in this situation? What is the major risk? Choose the best solution.

Usually, the solution you choose will depend on where you have space. Is there enough space in front? To the side? Behind? Having enough space will allow you to manage the situation.

Some riding decisions have to be made in seconds. This means you need to have lots of practice in assessing risk and choosing the best solution. Practise by thinking ahead about what you would do in emergency situations.

## see-think-do

Once you've assessed a risk and chosen a solution, you need to use your riding skills to perform the manoeuvre. The "do" step of see-think-do involves:



• speed control



• steering



• space margins



• communication.



All of your riding manoeuvres will combine these four skills, whether you are riding in a straight line, turning at an intersection or steering to avoid a hazard.



## Speed control

### Thinking like a rider

*You're heading along a long, straight stretch of highway. It looks safe, so you increase your speed to the speed limit. As you scan the sides of the road you notice a sign: Construction Ahead. The sign tells you that there could be a rough road surface or people working. But when you look ahead, the road looks clear.*

### What should you do?

Good speed control means maintaining a steady speed that is appropriate for the riding conditions.

### Maintaining an appropriate speed

Speeding is risky, but the safest speed isn't always the slowest speed. If you ride a lot slower than surrounding traffic, drivers behind you might get frustrated and try to pass you unsafely.

Aim for a speed that is appropriate for the conditions you're riding in. The posted speed limit is the maximum for ideal conditions. Choose a slower speed if the conditions are not ideal — for example, if the roads are slippery or visibility is limited, or if a warning sign tells you that there may be danger ahead.

Unless a sign tells you otherwise, speed limits are:

- 50 km/h within or outside municipalities.

### Maintaining a steady speed

To keep a steady speed, practise using your gears, brakes and throttle.

**Using gears** — Most motorcycles have five or six gears. A good rider will be able to choose the gear that's appropriate for the speed of travel and the road conditions. You will learn to change gears using your left foot on the gear shift lever and your left hand on the clutch. Start out in first gear and gradually shift up to higher gears as you increase your speed. When you want to slow down or stop, you shift down to lower gears as you decrease speed. As you become more experienced, the sound of the engine will tell you when it is time to shift gears.

Lower gears give you more power. If you're going up a hill or

### crash fact

Speeding is involved in 21 per cent of motorcycle crashes in B.C.

*Traffic Collision Statistics:  
British Columbia (2007)*

### warning!

It is illegal to coast downhill in neutral or with the clutch in. You need to be in gear to safely control your vehicle.

### smart riding tip

**Cover your brakes** when you see a hazard ahead and you're not sure what might happen. Cover your rear brake by placing your toe over the brake pedal. Cover your front brake by putting your fingers over the brake lever. If traffic is following you, flash your brake light by gently tapping on the rear brake.

planning to pass, you may select a lower gear than when you are cruising on a flat road. As a general rule, select a gear that allows the engine to operate in the “power band” — a range where you have the optimum amount of power to accelerate if necessary. Your motorcycle owner's manual will have information on the best gear to use for each range of speeds.

**Using the brakes** — Your motorcycle has two brakes — the front hand-operated brake and the rear foot-operated brake. The front brake is the most powerful; it provides about 70 per cent of your stopping power. Always apply the brakes smoothly and increase pressure gradually.

The best time to brake is when your bike is upright and moving in a straight line and you are looking ahead. Plan your braking so that you avoid braking in a curve. If you do need to brake in a curve, brake cautiously and smoothly to avoid losing traction.

### Strategies: how to brake

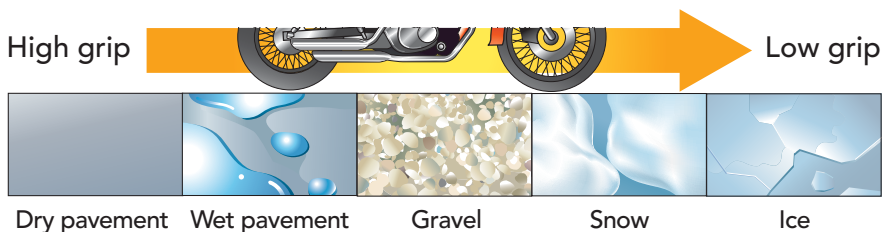
Apply the brakes by gradually increasing pressure. This progressive braking will prevent your wheels from locking.

### Physics for riders

When you're on the road, you need to pay attention to the laws of physics:

**Inertia** — this is the tendency for moving objects — in this case, you and your motorcycle — to continue moving forward in a straight line. When you brake, inertia tries to keep your motorcycle moving. When you go around a curve, inertia tries to keep you going in a straight line. The faster you ride into a curve, the greater the force of inertia, and the more effort the rider will have to make to keep from going off the road.

**Traction** — This is the grip your tires have on the road. Slippery or sandy road surfaces and worn or improperly inflated tires will reduce traction. If you do not have good riding skills, you can lose traction and fall. Abrupt accelerating, braking or turning (or any combination of these) may exceed available traction.



**Gravity** — this is the force that pulls everything toward earth. It's the reason why your motorcycle slows down when going up a hill and speeds up when coming down. When you're riding downhill, you will need a longer distance to stop.



## Steering

### Thinking like a rider

*You're riding along a country road, and can see the road ahead curving sharply to the right. It's a blind curve, so it's hard to assess just how sharply you will need to turn. Could there be traffic coming toward you when you go around the curve? Do you need to adjust your speed and steering to get a safe lean angle and maintain a safe lane position?*

### What should you do?

If you have driven a car, you may think that steering is simple — just turn the steering wheel the way you want to go. But to steer a motorcycle you need to know how to lean into your turn and keep correctly balanced. You also need to understand the different types of motorcycle steering: low-speed steering and countersteering.

### Low-speed steering

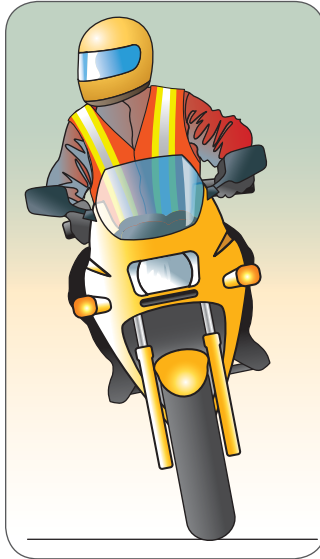


At speeds of up to 10 km/h, the motorcycle is unsteady, wanders easily and requires constant balancing and steering correction. To steer at slow speeds, turn the handlebars to the left when you want to turn left. Turn the handlebars to the right when you want to turn right.

Counterbalancing: In slow turns, lean the motorcycle only if necessary and remember to counterbalance — keep the motorcycle balanced by keeping your body upright.

## Countersteering

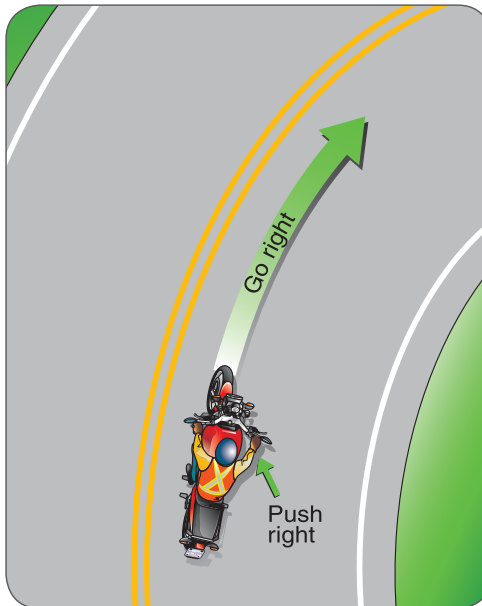
At medium or high riding speeds, the rider and the motorcycle should both lean into the curve at the same angle.



For most normal riding, your speed will be higher than 10 km/h. You'll find that when you get over 10 km/h, the bike will feel much steadier. At these speeds, the motorcycle must lean to make a turn. This lean counteracts the inertia that pushes the bike in a straight line.

You make the motorcycle lean by countersteering. It may seem to be the opposite of what you should do. If you want to turn left, you gently push on the left handlebar. This makes your bike lean to the left, and that will take you into a left turn. To return to an upright position, push on the right handlebar.

Countersteering in a nutshell:  
 Push right—lean right—go right  
 Push left—lean left—go left



## Handling curves

When you go around a curve, there are two forces at work. Your motorcycle wants to continue in a straight line because of the force of inertia, and as your motorcycle leans into the turn, there is a side force on the tires.

The faster you go, the harder you have to push on the handlebar to turn into the curve. And the harder you push, the more your motorcycle leans and the more traction you use up.

When you have used up almost all your available traction, several things could happen:

- If you find you need to lean just a bit more to stay in the curve, you could run out of traction or ground clearance, skid and fall.
- If you brake abruptly, you could lose traction and skid.
- If you hit a wet or rough patch on the road, you could lose traction and fall.

The lesson is: slow down to a safe speed before you enter a curve. A safe speed lets you lean at a moderate angle — if you hit a patch of slippery road or need to tighten your curve, you will have reserve traction and be able to lean a little more.



## Space margins

### Thinking like a rider

*You're riding in a residential area, and the car in front of you is creeping along at a snail's pace. You're impatient — you are going to be late for your meeting unless you can get past. You notice that there's a fairly wide space to the right of his car.?*

**What should you do?**

Trying to share a lane would be a big mistake. If the driver in front suddenly decides to turn right, you're in his blind spot. Remember, in a crash with a car, you'll come out the loser.

Unlike a car, your motorcycle doesn't give you the protection of seatbelts, airbags or bumpers, so it's important to keep areas of space around you. These areas are called space margins. You need to keep space margins all around your motorcycle so you can react safely if something happens ahead, or if a hazard comes toward you from the side or from behind.

### Space in front

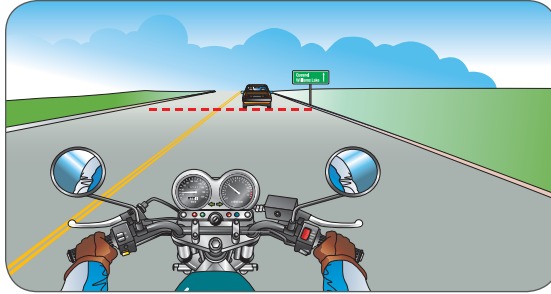
Always leave a safe following distance between your motorcycle and the vehicle you are following. You need at least two seconds of space in front, because this is the distance it will take you to stop in good weather and good road conditions. Increase your following distance to at least three seconds on high-speed roads and four seconds in bad weather conditions, or on uneven or slippery roads.

### smart riding tip

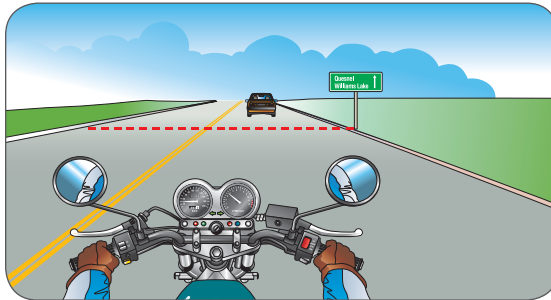
When you stop behind another vehicle at an intersection, leave about three metres between your motorcycle and the vehicle ahead. This gives you room to escape if a vehicle is about to hit you from behind. Allow about six metres behind a large vehicle. This increases your view.

Allow at least three seconds following distance when you're riding behind a large vehicle that could block your vision. It's also a good idea to keep at least a three-second following distance if a vehicle is following close behind you, or when you are following another vehicle on a dirt or gravel road where dust or gravel may be in the air.

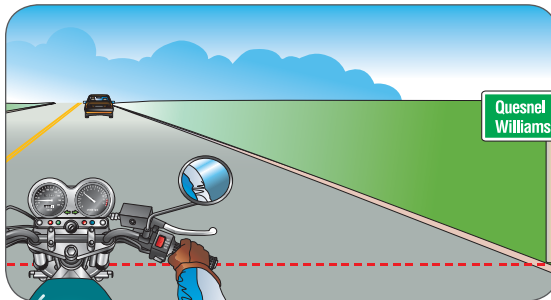
On a highway, measure a three-second space by picking an object ahead.



When the vehicle in front of you passes it, begin your count. Count one thousand and one, one thousand and two, one thousand and three ...



If you reach the object as you say "three," you are keeping a three-second following distance.



## Stopping distance

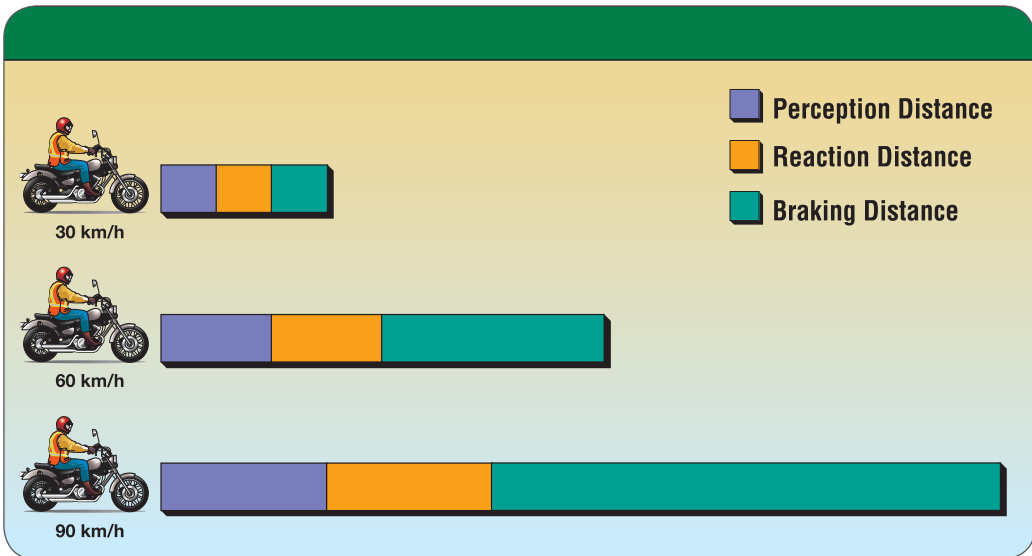
Total stopping distance is the distance your motorcycle travels from the moment you notice a hazard until the moment your motorcycle stops.

When you see a problem ahead, it takes you about three-quarters of a second to **see-think** (perception distance) and another three-quarters of a second to **do** (reaction distance). Then your brakes start to work.

Your braking distance depends mainly on your speed. The weight of your motorcycle, the traction of your tires on the road surface and the quality of your brakes can also affect your braking distance.

The faster you go, the longer it takes to stop. When you double your speed, your braking distance increases by four times. At triple the speed you will need nine times the braking distance. Higher speeds greatly increase stopping distance and the severity of crashes.

Remember, if someone is behind you, assume you can stop faster than them, and if someone is in front of you, assume they can stop faster than you. Make sure you have lots of space in front and behind.



Stopping distance includes perception time, reaction time and braking distance. Always allow enough following distance and choose a speed that will let you stop safely.

### Space behind

#### warning!

If you are turning left from a highway into a driveway or a side road, watch your mirrors and make sure you have plenty of space behind. The drivers behind may not be prepared to slow down for you.

What do you do when someone is tailgating you? You can't control the space behind you in the same way that you can control the space in front. But it's a good idea to slow down gradually and increase the space in front to four seconds. This way, if you have to stop, you can stop more gradually, and there will be less chance of the person behind crashing into you.

### Strategies: dealing with tailgaters

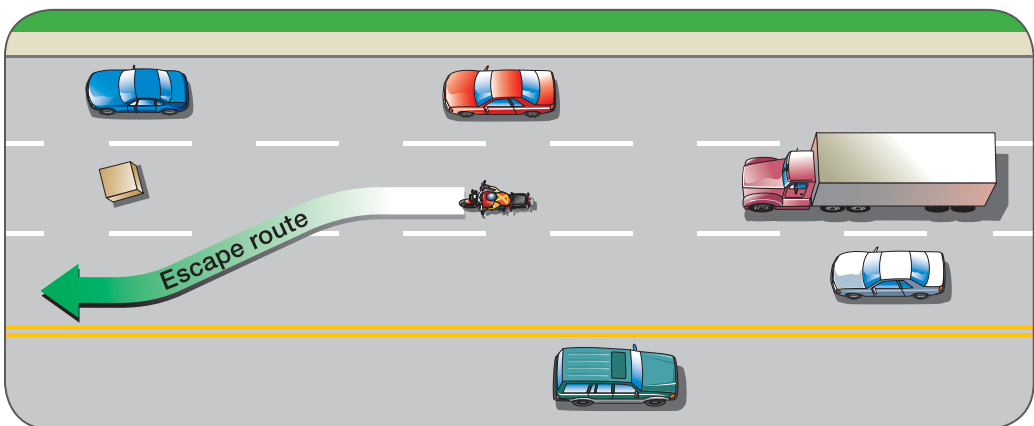
Here are some other ways to deal with tailgaters:

- Move into another lane.
- Turn right at the next intersection.
- Pull off the roadway and let the tailgater pass.
- Alert the tailgater by double-flashing your brake lights. The driver may realize that he or she is too close and drop back.
- Make sure that you maintain a dominant lane position (usually the left position) that makes you visible to the tailgater. This should help discourage them from moving closer.
- Sometimes, if you change your lane position and then move back to your dominant position, this will catch the tailgater's attention and they will then drop back.

### Space beside

As you ride, keep at least one metre of clear space on either side of your motorcycle. Don't ride too close to curbs, sidewalks, medians or any object or road user.

When passing pedestrians, cyclists or other vehicles, allow as much room as possible — at least one metre — and more if you are travelling fast. Increase your side space margins further when visibility or road conditions are poor.



Try to leave yourself an escape route — a space on at least one side of your motorcycle. Then if something happens in front, you can pull into another lane to avoid trouble.

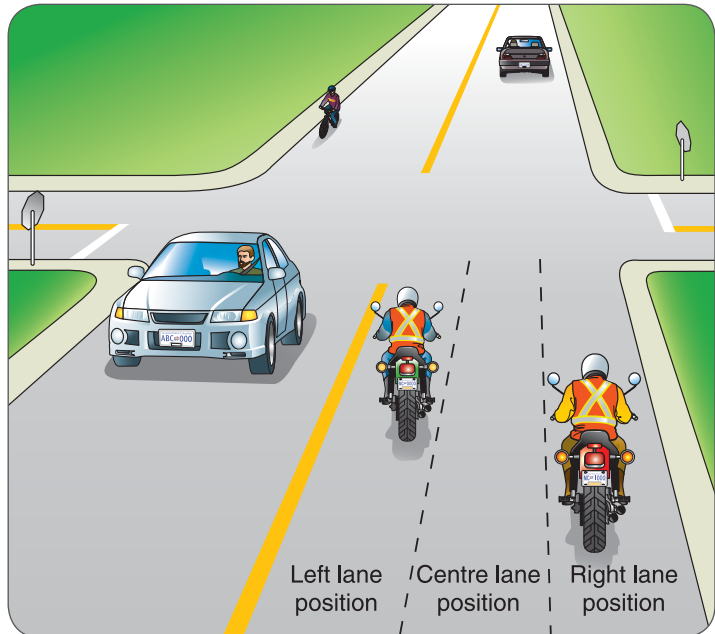
To keep an escape route beside you, you may have to slow down and let another vehicle pass, or move to another lane that has more room on the sides.



### Lane position

Placing your motorcycle in the correct part of the lane is a key factor in rider safety. You need to position yourself for maximum visibility and space. As the riding environment changes, your lane position may also need to change.

Each lane offers you three choices of position — the left lane position, the centre lane position and the right lane position. Keep watching the road and traffic conditions to decide which position is best for you.



Here are some things to consider when choosing your lane position:

- **space** — try to maintain maximum space between your motorcycle and other vehicles. Stay well away from any larger vehicles that might cause turbulence, and keep a safe distance from medians. Maintain a dominant lane position — a position that will make it difficult for other vehicles to move into your lane beside you. Often the left lane position gives you the best distance from parked cars and debris on the side of the road and is the dominant lane position. But on a multi-lane road, some riders will choose the right lane position while riding in the left lane.
- **visibility** — make sure you're clearly visible to the road users around you. Choose a position that lets you see well ahead.
- **traction** — choose a lane and lane position with a road surface that gives good traction. Choose a path that is clear of debris and grease. Lanes often have a grease strip down the centre, especially on city roads or at intersections. Stay away from plastic or painted lines, manhole covers and other slippery surfaces.

**smart riding tip**

Think of the left lane position as the “default” position. Most riders choose this position unless there is some reason why another is better. But don’t settle on just one lane position; keep scanning the road and deciding which is the safest.

**smart riding tip**

Riding alongside a vehicle in the lane next to you reduces your space margins. It also puts you in the other driver’s blind spot. Avoid doing this.

**smart riding tip**

Did you know that in ideal conditions, it takes most motorcycles stopped at an intersection:

- two seconds per lane to go straight across
- five seconds to turn right and get your speed up to 50 km/h
- seven seconds to turn left and get your speed up to 50 km/h (allow extra if you have several lanes to cross)

Remember to add an extra two seconds for safety.

**Strategies: choosing a safe lane position**

**Hills** — before the crest of a hill, move to the centre or right lane position. You never know what might be coming over the hill and moving into your space.

**Curves** — you don’t know what might be coming around a curve, so choose a position that gives you the best view through the curve ahead.

**Trucks and other large vehicles** — avoid turbulence. When you see a large vehicle approaching, move to the right position and wait for about three seconds after the vehicle has passed before returning to your usual lane position.

**Weather** — in heavy gusts, riding in the centre of the lane may give you the most manoeuvring space to recover from gusts, but there may be grease or oil in the centre position.

Here are some dangerous lane positions to avoid:

- **lane splitting** — lane splitting is the practice of riding between lanes of traffic. In Yukon, lane splitting is illegal. It is also dangerous. You never know when stopped or slow-moving traffic might suddenly start up or someone may change lanes or open a door. When you split lanes, you have no space margin to protect you.
- **riding on the shoulder** — never ride on the shoulder of the road unless you are pulling over to stop. It is illegal and also unsafe — shoulders are often littered with debris.
- **riding side by side** — don’t ride in the same lane next to another motorcycle — it reduces your space margin. To learn how to ride safely in a group, turn to **chapter 7, sharing the road**.

**Choosing a safe gap****Thinking like a rider**

*You’re waiting at a two-way stop. The traffic seems endless. Just when you think it’s safe to cross the intersection, a van approaching in the opposite direction comes into view. You think you probably have enough time to get across before the van reaches the intersection, but you’re not quite sure.*

**What should you do?**

A gap in traffic is the space you need to get across an intersection, make a turn, change lanes, pass, merge or move into traffic. Deciding whether a gap is big enough to be safe isn't always easy. You need to consider several things:

- the speed of the traffic
- the time it will take you to complete your manoeuvre
- the time it will take your vehicle to accelerate to the speed of the traffic flow.



### Communication

#### Thinking like a rider

*You're approaching a shopping mall, and you can see a car waiting at the mall exit stop sign. The driver is signalling a left turn. You make eye contact with the driver, and she seems to see you. You think that she'll wait until you are past before she pulls out to turn left, but you're not quite sure.*

#### **What should you do?**

This situation shows one of the primary hazards of riding. You can try your best to communicate with other road users, but you can never count on their response. Protect yourself by communicating clearly. Make sure you understand the ways that other road users communicate what they intend to do, but never assume that others have seen you and will respond appropriately.

### Visibility

It takes two to communicate. Signals are not effective unless other road users notice them. Make yourself visible. Wear bright and reflective clothing and keep your headlight on during the day. Ride in the lane position where you'll be most visible.

### Eye contact

You can often communicate with other road users just by using your eyes. Always try to make eye contact with drivers who may be about to pull into your path. This is one way of helping to make sure that those drivers see you. But remember, even if they see you, drivers often don't realize how fast you are approaching. Don't rely on the judgment of other road users.

Use your eyes to make contact with other vulnerable road users. When you stop for a pedestrian or a cyclist, make eye contact so that they know you've seen them and it's safe for them to cross.

## smart riding tip

Motorcycle turn signals are different from car turn signals because they don't always cancel automatically. Make sure you re-apply the signal if it cancels before you make your turn. And make sure you cancel it immediately after your manoeuvre.

## Turn signals

Your primary communication tools are your turn signals. Always signal to let people know you are planning to turn, change lanes, pull out or pull over.

Here are some tips for using your turn signal:

- **be timely** — signal well ahead to give other road users plenty of warning.
- **be clear** — don't put on your turn signal too soon — it may confuse other road users. If you plan to turn right at the next intersection and there are a number of driveways and lanes before you reach it, wait until you're close enough to the intersection that other people can see exactly where you plan to turn.



This is the left turn signal.



This is the right turn signal. Motorcyclists must use their left arm to signal a right turn. Cyclists may use either arm to signal a right turn.



- **be visible** — get in the habit of always using your turn signals even when your intention seems obvious (for example, when you are in a turning lane). Your turn signal will make you more visible to other road users. In some situations, you may choose to use a hand signal as well as turn signal lights to make yourself more visible to drivers.

This signal shows that you intend to stop.



- **mean what you say** — make sure that you cancel your signal after your manoeuvre, or turn your signal on again if necessary. Don't give the wrong message to other road users.

## Brake light



The brake light goes on when you apply either the front brake or the rear brake.

Your brake light tells the traffic behind you that you are slowing down. Help drivers behind notice you by flashing your brake light before you slow down. If you gently tap either your front brake lever or your rear brake pedal, you can activate the brake light without applying the brake. It's especially important to do this before:

- you slow down suddenly
- you slow down in a place where other road users wouldn't be expecting it.

### Horn

Be ready to use your horn to quickly get someone's attention.

Here are some situations where it's a good idea to use your horn:

- You are approaching an intersection at the same time as another vehicle. You haven't managed to make eye contact.
- You are passing someone who doesn't see you and begins to move into your lane.
- A driver in a parked car looks ready to pull out in front of you.
- A car starts to back out of a driveway and into your path.
- A pedestrian is about to step out in front of you and you can't stop in time.

Remember that your motorcycle's horn isn't as loud as a car horn. Don't rely on it — be prepared to brake or steer as well as honking your horn.

### Vehicle clues

The way you position your motorcycle in the lane can tell other road users what you intend to do. Make your intentions clear well ahead of performing a manoeuvre. For example, if you want to make a left turn, position yourself in the left portion of the left lane in good time so that drivers behind you can see you and know what you are doing.

You can tell a lot about what other vehicles are going to do by watching vehicle clues. If a vehicle moves over in the lane, that driver may be planning to change lanes or turn. When you see a parked vehicle with its wheels turned out, the driver may be planning to pull into traffic. Pay attention to these clues.

#### think about

A parked car starts to pull out just in front of you. How can you use your "do" skills — communication, speed control, steering and space margins — to avoid a crash?

## Using see-think-do

Riders in hazardous situations sometimes forget how to countersteer, and steer into the hazard instead of away from it. The way to avoid this is to give yourself plenty of time and space to react and practise the **see-think-do** strategy. Practise your skills until they are second nature, ride at a safe speed, look well ahead and stay alert. That way you should be able to see problems coming up, think of possible solutions and take actions that will keep you safe.

### in this chapter

- Sharing the road safely
- Pedestrians
- Cyclists
- Large vehicles
- School buses
- Public transit buses
- Emergency vehicles
- Emergency workers on roads
- Construction zones
- Other motorcycles
- Trains
- Horses

A key to safe riding is to make sure the space you plan to move into will be empty when you get there.

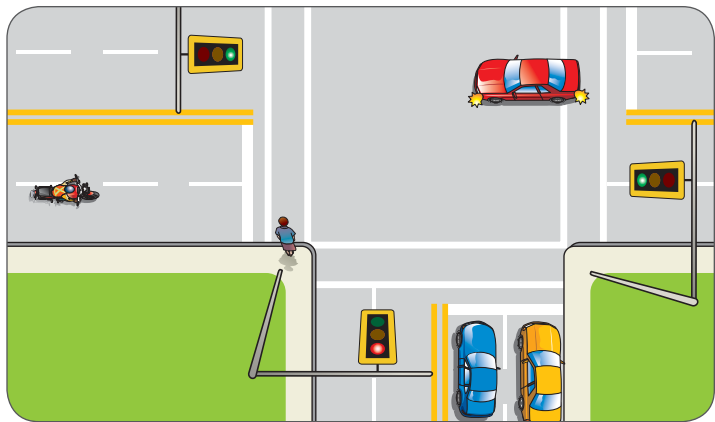
The last six chapters presented information that can help you develop your smart riding skills. The next four chapters suggest ways to apply this information to your riding. In this chapter, you will learn how to share the road safely with others.

## Sharing the road safely

### Thinking like a rider

*You slept in this morning and now you're afraid you'll be late for work. As you approach the last intersection before your office building you scan the intersection. You note that the light is green, but you think it is probably a stale green light. You also see a car stopped in the oncoming lane. The wheels are turned left; the driver is getting ready to turn. Does the driver see you? Will he wait for you? Suddenly the light turns yellow.*

### What should you do?



In this scene, there's a chance that both you and the driver of the left-turning vehicle will move into the same space at the same time. By law, that driver should wait for you. But drivers can completely miss seeing you or, if they do see you, may not realize how fast you are travelling or how close you are to them. Is it worth taking a chance?

The way to avoid crashes is to make sure that the space you plan to move into will be empty. To share the road safely with all road users, use your **see-think-do** skills.

### see

Use your observation skills. Scan the intersection from left to right and left again, looking for hazards. Don't start across an intersection without checking to make sure it's clear.

### think

When another road user is approaching the space you are planning to use, assess the risk and anticipate what the other person might do. Then choose the safest solution.

It's also important to know the right-of-way rules. When two or more road users want the same space, right-of-way rules tell you which road user should yield. But other road users make mistakes and do unexpected things. Other traffic may not know who should yield, or may not yield. If in doubt, always be ready to give the right-of-way.

To learn more about right-of-way rules, read **chapter 5, rules of the road**.

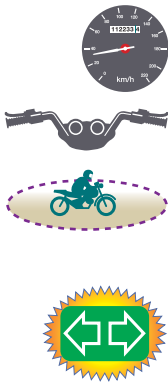
### do

**Speed control** — ride at a safe speed. That way you'll have time to stop if you need to.

**Steering** — keep control of your steering and your balance.

**Space margins** — if you keep well away from other road users, there will be less chance of space conflicts. You'll have room to stop or to steer around them if others start moving into your space. You will be more visible to other road users.

**Communication** — let other road users know what you are planning to do so they can react in time. Watch for communication from other road users.



## How to share the road

You share the roads with many different types of road users, and to do it safely, you need to use all your **see-think-do** skills. The next time you're stopped at a busy intersection, look around and count the different types of road users you can see. The following sections will highlight some strategies to help you safely share the road.

How many of these road users do you see every day?



## Pedestrians

### Thinking like a rider

*You're cruising along a multi-lane street scanning the traffic and watching the traffic lights at the next intersection. Suddenly, a man steps off the curb and starts crossing the street. There's traffic behind you. You're not sure that he has seen you. Does he know how fast you're going? Can you stop in time? Should you go around him?*

### What should you do?

### smart riding tip

You must always be prepared to stop if you see a pedestrian who is about to step out in front of you. However, don't encourage jaywalking (crossing between intersections) by stopping and inviting pedestrians to cross. The car behind you may not be expecting you to stop and may crash into you. Drivers in the other lanes may not see the pedestrians crossing in front of your motorcycle.

Pedestrians are among the most vulnerable of all road users, and you always need to watch out for them. Like all road users, pedestrians can be unpredictable. Many don't know how fast an oncoming motorcycle is moving and the distance it takes for a motorcycle to stop. They may step out onto the street without warning. Be extra careful at night when pedestrians are often hard to see.

### see

#### Scan at crosswalks and intersections:

- be aware of vision blocks. Don't pass if you see a vehicle ahead of you that has stopped at a crosswalk — it's illegal and unsafe. The driver may be stopped to let pedestrians cross the road.



- don't enter a crosswalk without checking that it's empty, even when the light is green. Someone may be trying to run across. People who find it difficult to cross the road quickly, like the elderly, people with disabilities and parents walking with young children, may still be in the crosswalk.
- watch for pedestrians on the cross street whenever you make a turn.

### warning!

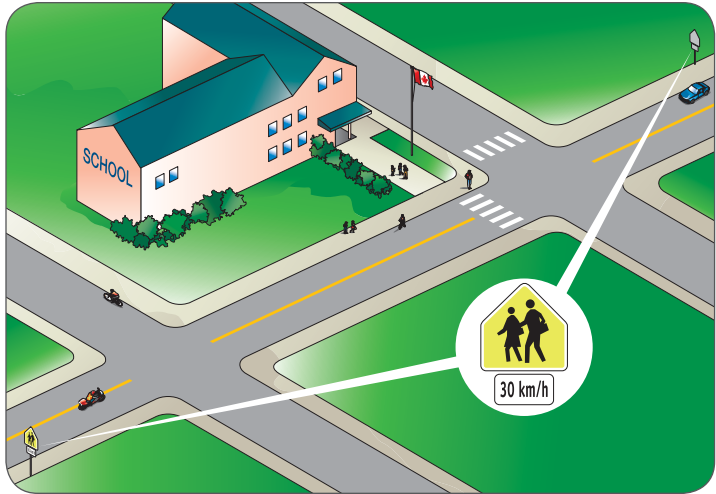
Crosswalks with flashing green lights are controlled by pedestrians. When you see a pedestrian standing near this type of crosswalk, you know that the person has probably pressed the button and the light is about to change. Slow down and be prepared to stop.

When you see a school zone sign with a 30 km/h posted speed, slow down to that speed. The speed limit is in effect between 8 a.m. and 4:30 p.m. on school days, or the hours shown on the sign. When you reach the back of the school zone sign on the other side of the street, you know that you have reached the end of the 30 km/h zone.

**Pay attention at school zones and playgrounds** — observe carefully when riding in school and playground zones. Small children are harder to see than adults and are more unpredictable.

If you're approaching a school zone at a time when children may be arriving, leaving or taking their lunch hour, look well ahead for school patrols or crossing supervisors — you must obey them at all times.

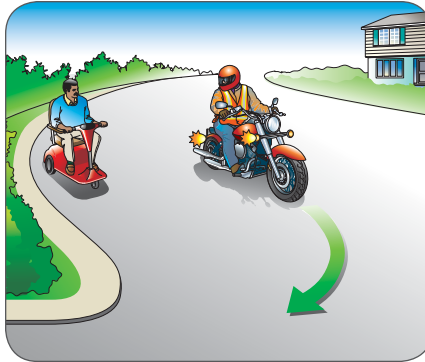
For details on speed limits for school and playground zones, see **chapter 4, signs, signals and road markings**.



**Observe carefully in residential areas** — in areas where people live, expect them to move in unpredictable ways. Watch for children playing. Remember, a ball or a hockey net can mean children are playing nearby.

**Watch for pedestrians with disabilities** — take extra care if you see a blind person. (They may be carrying a white cane or be accompanied by a guide dog.) Often, a visually impaired person will raise their cane when they are not sure they can cross the street safely. That is your signal to stop and give the person the right-of-way. Don't startle a blind person or a guide dog by racing your engine or honking your horn.

Watch for people in wheelchairs travelling along the side of the road, especially when you are planning to make a right turn.



People in motorized wheelchairs also share the roads. Technically, wheelchairs should be on the sidewalk, but not all roads have sidewalks. Sidewalks can also be difficult to access or too rough or too narrow for wheelchairs to travel on.

## think

**Know the rules** — you must yield to pedestrians:

- in marked crosswalks, if the pedestrian is close to your half of the road
- at intersections (pedestrians near your half of the road have the right-of-way even when there is no marked crosswalk)
- when entering a road from a driveway or alley.

It is always the rider's responsibility to avoid hitting a pedestrian.

## do

### Speed control and space margins

Slow down when you see a pedestrian who might enter your path, and give them plenty of room.



### Strategies: being a safe pedestrian

When you are riding, you need to observe carefully for pedestrians. When you are walking, you need to observe carefully for drivers and riders. You can make yourself safer when you are walking by remembering a few simple rules:

- Don't leave the curb unless you're sure that approaching vehicles on the cross-street have stopped or will stop.
- Watch for vehicles that are turning.
- Always hold a child's hand while crossing the street until he or she is old enough to understand safety rules.
- Don't start to cross if the traffic signal is flashing a warning (for example, an orange hand).
- Use crosswalks. Don't jaywalk.
- Always use the pedestrian crossing signal if there is one.



### fast fact

Bicyclists have to obey the same rules as other road users.

## Cyclists

### Thinking like a rider

*You're riding along a street with parked cars on either side and you're coming up to a cyclist. You can see that there's a large truck in the oncoming lane and that you, the cyclist and the truck will all be passing just where the two lanes narrow. You could accelerate and get past the cyclist before the truck reaches you. Or you could slow down and wait until the truck has passed before you go around the cyclist.*

### What should you do?

These days, more and more people are riding bicycles. Cyclists commute to work as well as ride for recreation, so you can expect to see them on the road at any time of the day or night. Be aware that bicycle riders have the same rights and responsibilities as motorcycle riders. Observe carefully at all times. Cyclists, like pedestrians, are vulnerable.

Be especially careful near children on bicycles. Children tend to be unaware of danger because they are used to having adults watch out for them. Children also have poor peripheral vision and often find it hard to judge the speed and distance of oncoming vehicles. They may not know the traffic rules or how much room motorcycles need to stop.

### see

**Shoulder check** — shoulder checking is important because bicycles are narrow and can easily be hidden in your blind spot. Make sure you shoulder check before you change road position, turn or pull away from the curb.

**Pay attention at night** — observe carefully, especially for bicycles coming in from side streets. Some cyclists may not have lights, reflectors or reflective gear.

**Scan at intersections** — be especially careful to observe at intersections:

- Shoulder check for bicycles before turning right.
- If you're riding straight through an intersection, watch out for cyclists waiting to turn left.
- Before you make a left turn, check carefully for oncoming cyclists.
- When you approach a place where a bicycle trail joins a road, check carefully for cyclists who may be crossing your path.
- Be aware that a cyclist riding along the through road could be approaching faster than you think.

## think

**Know the rules** — cyclists follow the same rules and regulations that you do:

- Yield to cyclists as you would to any other vehicle. If you have the right-of-way at an intersection, proceed if it is safe. A cyclist will expect you to follow the rules of the road.
- Be aware that cyclists don't always stay on the right. To make a left turn, for example, they need to move over to the left lane. If the lane is narrow or if there is some broken glass or a pothole on the right, a cyclist has the right to move out toward the middle for safety.
- Pay attention to bicycle lanes. For information on these, see **chapter 5, rules of the road**.

## do

### Space margins



**Allow following distance** — cyclists, like motorcyclists, need room to manoeuvre.

Allow plenty of following distance between you and a cyclist. You need to have space to avoid hitting a cyclist who falls. Cyclists who weave or wobble are probably inexperienced. Give them even more space.

**Allow side margins** — when you pass a cyclist, choose a lane position that allows plenty of room between you.

### Communication



**Recognize hand signals** — understand the hand signals that cyclists use. A cyclist may signal a right turn by extending the right arm straight out. For more information about hand signals, see the section on turn signals in **chapter 6, see-think-do**.

**Make eye contact** — a cyclist often relies on eye contact as a means of communication. Make eye contact if you can. She or he is probably trying to anticipate your next move.

**Avoid honking your horn** — don't honk your horn at a cyclist unless you need to give a warning. A loud honk could startle a cyclist and even cause a fall.

### Strategies: being a safe cyclist

If you're a cyclist, you're responsible for sharing the road in a way that keeps you and others safe.

**Be predictable** — follow the rules of the road.

**Be visible** —Bicycles are narrow, so you need to work at making yourself visible. Wear bright or reflective clothing, especially in the dark or in poor weather. Position yourself so drivers and riders can see you. Avoid riding in blind spots.

**Ride defensively** — think and look well ahead. Be assertive, but remember that a conflict between a cyclist and a motor vehicle usually results in injury to the cyclist.

**Ride legally** — in B.C., you must wear an approved bicycle helmet. If you ride at night, your bicycle must be equipped with a front white headlight visible at 150 metres, and have a rear red light and reflector.



## Large vehicles

### Thinking like a rider

*You're cruising down a freeway on the inside lane. Suddenly you notice your exit. You know that you'll have to quickly get over to the outside lane if you're going to make it. There's a large truck on your right. Will you be able to cut in front of it without slowing the driver down? Can the driver slow for you if he has to? What if you miss the exit?*

**What should you do?**

Large vehicles handle differently from smaller vehicles because of their size and weight. They take a lot of room to turn and stop. They create turbulence. They have big blind spots that make it hard for the driver to see small vehicles such as motorcycles. The main rule to follow around big vehicles is to give them lots of room.

### see

Large vehicles are easy to see, but they can block your vision of other traffic. Make sure you keep well back so that you can see oncoming traffic and oncoming traffic can see you.

## think

Think about the whole traffic scene. Where can you position your motorcycle for maximum visibility and safety?

## do

### Space margins

**Allow following distance** — a big vehicle can prevent you from seeing hazards ahead. You'll have a wider range of vision if you increase your following distance.

Large vehicles may throw spray that can reduce your vision. Their tires may throw up gravel that could hit you or your motorcycle. Staying well back will help prevent this.

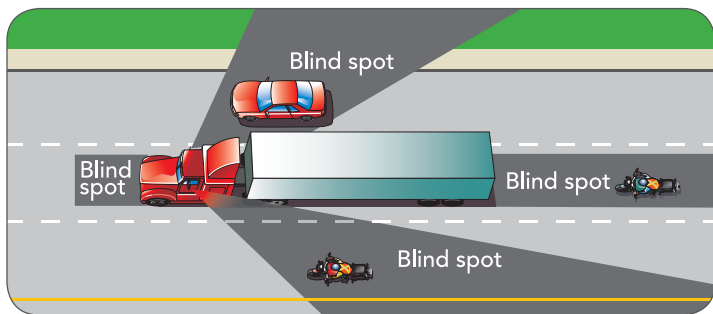
On the back of some vehicles, you will see this sign. It tells you that the vehicle will be moving slowly. Keep your distance, and pass only when you are certain it's safe.

**Stop well back** — if you're stopped facing uphill behind a truck, remember that a truck may roll backward when the driver releases the brake. Leave extra space in front of your motorcycle.

**Keep clear of blind spots** — there are large blind spots both behind and beside large vehicles. If you ride in these blind spots, the driver won't be able to see you. You know you're clear if you can see both mirrors on the truck or bus in front of you.



When riding near a large vehicle, think about whether the driver can see you. Avoid travelling in a blind spot.



Never try to sneak behind a truck if it is backing into a loading bay or out of a driveway because you'll enter one of the truck driver's blind spots and risk being hit.

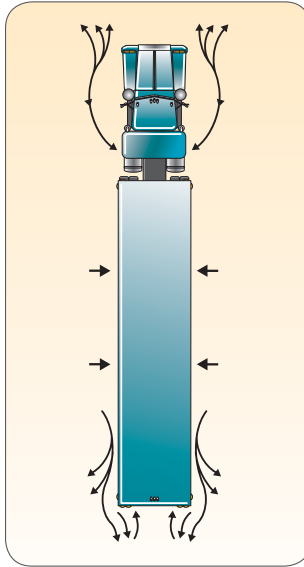
**Allow space when passing** — it takes a lot of distance to pass a truck. Remember that trucks are long — some pull two trailers. Don't pass unless you are sure you have plenty of clear space ahead.

If you pass a large vehicle, or change lanes in front of one, leave extra distance before you pull in. Big vehicles take a long time

to slow down. Make sure you can see the truck's headlights in your mirrors before you re-enter the lane, and maintain your speed once you get there.

If you see a truck starting to slow down well before a red light, never cut in front. Large vehicles require a long space to stop. If you move into that space you could be rear-ended.

Big vehicles create turbulence when they are travelling at high speeds. These arrows show how you can be pulled toward the vehicle or pushed away from it. Keep your distance.

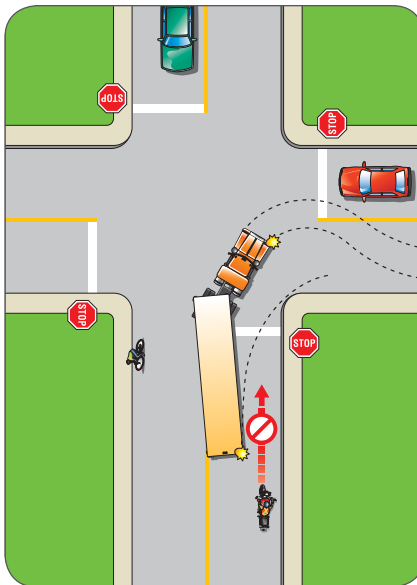


### Choose a safe lane position

— avoid turbulence from trucks by choosing a lane position that will give extra space between your motorcycle and the truck. Keep your hands firmly on the handlebars.

**Make room for turns** — big vehicles need a lot of room to turn. If you're between a truck and the curb as the truck is turning right, you could be squeezed.

Avoid being on the right of a large vehicle if there is a chance it might turn right.



You may also have a space problem if you are on the road that a large vehicle is turning onto. The driver may need to cross the centre line or cut a corner in order to complete the turn. Choose a lane position that allows plenty of distance between you and the truck. If you're riding in the left lane position, you may need to stop well before the stop line or back up to allow room for the truck to turn.



## Communication

**Read vehicle clues** — many large vehicles are equipped with engine retarders that slow the vehicle down without the use of brakes. Truck drivers also use their gears to slow down. This means that the truck or bus ahead of you could be slowing down even though the brake lights are not on. Look ahead and listen for a change in the truck's engine noise.

**Watch for signs that a large vehicle is about to back up** — a horn or beeper, four-way flashers or backup lights.

**Signal well ahead** — if you are riding in front of a large vehicle, signal in plenty of time before you slow down, turn or stop. Large vehicles need lots of time to slow down.



## School buses

### Thinking like a rider

*You're out for an early morning ride on your favourite country road. You notice a school bus up ahead signalling to pull over to the right. You can see children walking along the side of the road to meet the bus. Should you zip around the bus quickly so that you don't have to keep stopping? Is there time for you to get past? But what if a small child makes an unexpected move?*

**What should you do?**

### see

**Watch for signs** — a school bus that has stopped to let children on or off has lights at the top that flash alternately and sometimes a swing-out stop sign.



You must stop in either direction whenever you see flashing lights on a school bus.



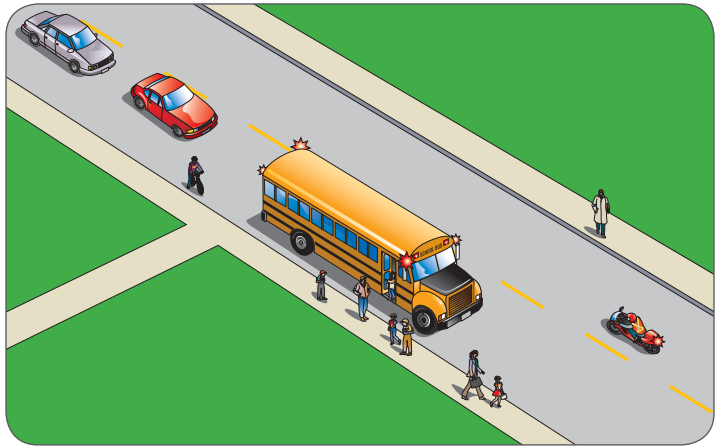


## think

**Know the rules** — when you see a school bus with alternating flashing red lights at the top, you must stop whether you are approaching it from the front or the rear. Vehicles in all lanes must stop.

## do

After stopping for a school bus, don't start moving again until the bus moves on or the driver signals that it's safe to go by turning off the lights and pulling in the stop sign.



## Public transit buses

### Thinking like a rider

*You're riding along the curb lane of a busy street. Just ahead, you can see a city bus signalling left to leave the bus stop and pull into your lane. You check your left mirror to see if you can pull over into the centre lane. There's no gap in the traffic. You could quickly pull around the bus, or you could slow down to let the bus pull out.*

**What should you do?**

## see

**Watch for buses that have stopped** — they may block your view of pedestrians about to cross the street or they may be about to pull into traffic.

## think

**Know the rules** — you must allow a public transit bus that is signalling and displaying a yield-to-bus sign to move out from the curb lane or a bus stop. This rule applies to all roads where the speed limit is 60 km/h or lower.





**do**

**Space margins and speed control**

If there is space, change lanes to let a bus pull out. If you can't change lanes, slow down and prepare to stop.



**Emergency vehicles**

Emergency vehicles include police cars, ambulances and fire trucks.



**Thinking like a rider**

*You're riding along a four-lane road filled with downtown traffic. You hear sirens. An ambulance is coming toward you. You think, "Maybe I can just pull over to the side but keep going along without stopping. That way I won't have to struggle to get back into this heavy traffic."*

**What should you do?**



**smart riding tip**

If you are stopped at an intersection and you are blocking the path of the emergency vehicle, you may have to turn the corner to get out of the way.

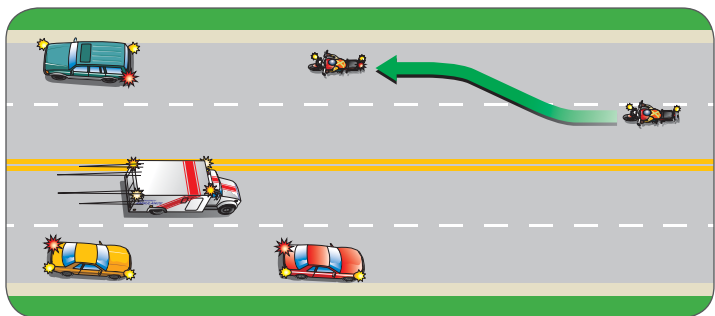
**see**

**Listen for sirens and watch for flashing lights** — look to see where the emergency vehicle is coming from. Once the emergency vehicle has passed, watch and listen because others may be coming.

**think**

**Know the rules** — emergency vehicles always have the right-of-way when their flashing lights and sirens are on. All traffic moving in both directions must stop. (Exception: If you're on a divided highway and the emergency vehicle is approaching on the other side of the median, you may not need to stop. Make sure that it would be impossible for the emergency vehicle to move onto your side of the highway.)

All vehicles on both sides of the road must pull over to leave a clear path whenever an emergency vehicle uses its siren and flashing lights.



It is illegal to drive over a fire hose.

**Clear a path** — don't block the path of emergency vehicles. Pull over to the right and stop. (Or to the left if you are riding in the left lane of a divided highway or a one-way street.) Do not stop in an intersection.



**do**

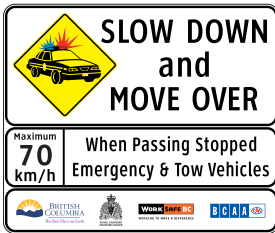
## Space margins

**Allow following distance** — when you are riding behind a fire truck, you must stay back at least 150 metres.



## Communication

**Signal** — use your turn signal to let the driver of the emergency vehicle know you have seen them and are pulling over.



## Emergency workers on roads

Slow down and leave plenty of room when you pass stopped emergency vehicles displaying red and/or blue or amber flashing lights.

**see**

Watch for flashing red and/or blue or amber lights or other signs that emergency workers are on the side of the road.

### fast fact

Failure to change lanes and/or slow down near a stopped emergency vehicle displaying flashing lights may result in a traffic violation and penalty points.

**think**

**Know the rules** — all traffic must slow down when approaching stopped emergency vehicles displaying flashing lights. (Exception: this rule doesn't apply if you are on a divided highway and approaching the emergency workers from the opposite direction.)

**do**

## Space margins and speed control

Slow down and leave space when passing emergency workers on roads. Change lanes if it is safe to do so.



## Construction zones

Road crews work throughout the year to maintain and improve our roads.

Despite construction zone signs and traffic control persons, crashes still occur in construction zones, mainly because some drivers don't pay attention.



### see

**Scan ahead** — look for construction zones ahead and be prepared to obey traffic control devices within the zone.

**Pay attention at night** — road construction doesn't just occur in the daytime. You need to pay extra attention and drive extra slowly through construction zones at night.

**Look around** — just because you don't immediately see traffic controllers, construction or workers in a construction zone doesn't mean they are not there. Be alert for traffic control persons, construction workers and equipment.

### think

**Know the rules** — you must obey the directions of traffic control persons and road construction signs from the start to the end of the construction zone. Remember, construction zone speed limits apply 24 hours a day when posted, regardless of the presence of workers.

**Think ahead** — if the construction zone has closed lanes, merge as soon as possible. This will help maintain traffic flow.

**Plan ahead** — expect delays, and plan for them by leaving early to reach your destination on time. Construction crews aren't there to personally inconvenience you but to improve the roads for everyone. Check radio, television and websites for the latest in traffic reports and updates to find out what is happening on the roads within your area, and along your intended route. Consider taking an alternate route.

### do

#### Space margins and speed control

**Slow down** — the road surface may be uneven or unpaved, so you need to slow down. You must obey construction zone speed limits. Traffic fines are double in construction zones.



**Stop when directed** — stop when directed to do so by traffic control persons or other traffic control devices while in a construction zone. In some construction zones, you may need to wait for a pilot car to escort you through the work zone.

**Allow following distance** — leave plenty of following distance between your motorcycle and the vehicle immediately ahead. Avoid changing lanes in a construction zone.

**Allow side margins** — leave space between you, the construction crews and their equipment in the construction zones.



## Other motorcycles

### Thinking like a rider

*You're heading out of the city, following behind three friends. You reach the last traffic light before the roads that will take you into the backcountry. Just as your friends clear the intersection, the light turns yellow. You realize that you don't know which road they will take next. Should you try to race the light or wait at the intersection and hope for the best?*

### What should you do?

Group riding is fun, and if you do it right, it can be safe for you and the traffic around you. While your speed and lane position are set by the group and not by you, riding in a group formation can use less road space and increase visibility.

### see

**Watch out for others** — put less experienced riders behind the leader, where more experienced riders can watch them. Keep track of the rider behind you by using your mirrors. If he or she falls behind, slow down. If everyone does the same, the group will stay together.

### think

**Plan ahead** — know your route, and have pre-arranged stopping points.

**Think for yourself** — don't ride with other riders who push you to ride unsafely. If you find yourself in this situation, leave the group as soon as possible.

When following other riders around curves and corners, don't assume that they are choosing a safe path. They could end up skidding off to the side.

Decide on a safe speed and path for yourself and stick to it.

### Strategies: group riding

**Keep it small** — if the group is larger than six, divide it into two or more small groups.

**Keep together** — if your group is split at a traffic light, it's a good idea for the front riders to pull over at a safe stopping place and wait.

**Plan ahead** — give signals well ahead so that everyone in the group has plenty of warning. Allow lots of time for manoeuvres.

**Know the route** — if all the members of the group have planned the route together, a rider who gets separated can catch up.

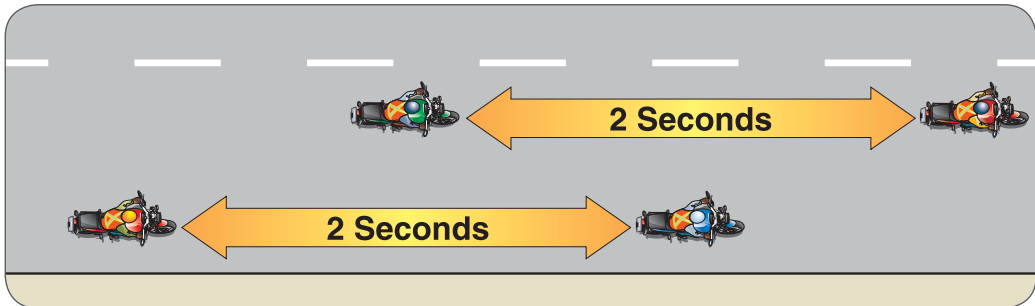
**Allow extra time** — it usually takes longer for a group of people to travel than for a single rider, especially when there are plenty of stops.

## do

### Speed control



**Keep a safe speed** — ride at a safe speed that is comfortable for the least experienced rider in your group. It isn't safe to push anyone in the group to ride at a speed that feels too fast.



When you ride in a group, ride in staggered formation. If the leader is riding in the left lane position, then the second rider stays slightly behind and rides in the right lane position. The rest of the group follows in this pattern. Remember — two seconds is the minimum safe following distance — increase following distance in less than ideal conditions.



### Space margins

**Ride in formation** — use a staggered formation on an open highway. You may need to ride single file on blind curves and hills.

### smart riding tip

When deciding whether to pass, use your judgment. Can the whole group pass safely? If not, you may decide to wait for a better opportunity.

**Pass safely** — keep the basic strategies for safe passing in mind:

- When it is safe, the leader should pull out and pass, maintaining the same left lane position once the pass is complete.
- Next, the second rider moves into the left position and watches for a safe chance to pass. This rider should move into the right lane position once the pass is complete. This maintains the staggered group formation.
- Keep up this pattern until everyone in the group has passed and the group has resumed a staggered formation. You may decide, after one or two of the group have passed, to wait for a safer time for the rest of the group to pass.

**Ride safely through intersections** — assess the intersection well ahead to decide what riding formation is safest:

- If you're riding straight through an intersection, you should normally maintain staggered formation. If stopped traffic to the right is reducing your space, you may have to form a single file on the left side of the lane.
- To turn, either remain in a staggered formation or form a single file, depending on the spacing of the group.



### Communication

**Communicate clearly** — work out signals before you start so that you can warn the riders behind you of problems ahead. But everyone should remember that they are each responsible for their own safety.

#### Strategies: passing another motorcyclist

You should pass in the same way that you would pass a car or truck by either:

- changing lanes, or
- choosing a safe and legal place to move into the oncoming lane of traffic to overtake the motorcyclist.

Refer to the rules for passing and changing lanes in **chapter 5, rules of the road** for more details.



## Trains

### Thinking like a rider

*You're stopped at a rural train crossing. You've already seen that there are no gates, only a railway crossing sign and a stop sign. You are feeling impatient — this train is taking a long time. You're planning to cross the tracks and get going as soon as the last car is past. As you wait, you notice that there is a second set of railway tracks, just visible under the wheels of the train.*

### What should you do?

Every year, people die or are seriously injured in collisions between vehicles and trains, so you need to be careful when approaching a railway crossing. One of the main causes of crashes involving a vehicle and a train is a driver or rider who doesn't wait to see if there is a second train hidden behind the first one. Often there is more than one track, and a second train may be coming.

Most trains require approximately two kilometres to stop — never try to beat a train.

### see

**Watch for clues** — there are lots of clues to warn you of a railway crossing ahead:

- **advance warning signs** — these signs alert you to an upcoming crossing, and tell you to look, listen and slow down because you may have to stop. They are usually posted in locations where you cannot see an upcoming railway crossing (for example, on hilly or curvy roads). An advisory speed sign below the advance warning sign may show that the safe road speed is less than the posted speed.
- **pavement markings** — at the approach to some railway crossings, you may find a painted "X" on the pavement. Some crossings also have flashing lights, a bell and gates. If the lights and bell are activated or the gate is down, it means a train is approaching.



You may not be able to see a train coming if visibility is poor, but you may hear a whistle. But remember that trains are not required to sound a whistle at every crossing.

**Observe carefully** — be aware that your eyes may mislead you. Trains often seem to be moving much slower than they really are. Passenger trains travel at up to 160 km/h in Canada.



Be especially careful at night. Half of all nighttime collisions between a vehicle and a train involve a vehicle hitting the side of a train because the vehicle driver didn't see it.

### smart riding tip

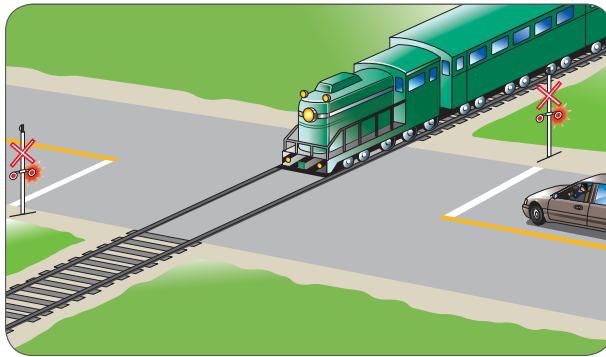
Where there is a railway crossing on the near side of an intersection displaying a red traffic light, do not stop on the tracks. Stop before the railway crossing unless there is room on the other side.

Stop no closer than five metres and not further than 15 metres from the nearest rail.

### think

**Know the rules** — trains always have right-of-way. They don't slow down for crossings.

If there is a gate down, you must stop and wait for it to go up before you cross the tracks. If flashing red lights are displayed at the crossing, you must stop. Move across the tracks only when it is safe. If a flag person directs you to stop, you must obey their directions. If you hear or see a train approaching the crossing, stop and do not proceed until it is safe.



### do

#### Speed control

**Travel at a safe speed** — if you're riding at night, keep to a speed that lets you stop within the area you can see with your headlight. You must be able to stop safely when you see the warning signs.



#### Space margins

**Allow following distance** — never get trapped on a crossing. When traffic is heavy, wait until you're sure you can get all the way across before moving onto the crossing.



For strategies to help you safely cross tracks, turn to **chapter 9, challenging riding conditions**.



## Horses

### see

**Scan ahead** — look for horses and riders.

### think

**Know the hazards** — horses can be startled by sudden movement or noise. The rider may not be able to control the horse.

### do

#### Space margins

**Slow** — slow down when you approach a horse and rider or horse and carriage. Allow plenty of following distance.

**Allow space when passing** — leave extra room when passing them.

**Pass carefully** — horses may be startled by sudden movement or noise. Avoid sounding your horn or revving your engine, and pass carefully and slowly.

**Prepare to stop** — if a rider is having trouble controlling their horse, stop. It's better to wait until the horse is back under the rider's control than to risk passing them.





## in this chapter

- Fitness to ride
  - seeing and hearing
  - assessing your health
  - staying awake
  - keeping focused
- Cellphones and other devices
- Dangerous emotions
- Impairment
  - facts about alcohol
  - facts about drugs
- Taking risks
- Peer pressure
- Passengers
  - carrying passengers
  - taking responsibility for passengers
- Aggression on the road
  - preventing aggression

## smart riding tip

Wearing proper hearing protection while riding is a good idea. This will help protect you against long-term hearing loss while still allowing you to hear critical sounds while riding.

In chapter 7, **sharing the road**, you learned how to safely share the road with other road users. This chapter outlines strategies you can use to handle situations that can have a negative influence on you and your riding.

## Fitness to ride

To be in control while riding, you need to be able to rely on the information that your eyes and ears pick up. You must be healthy, rested and focused.

## Seeing and hearing

### Thinking like a rider

*You're late for work so you start off on your bike quickly. Just as you get to the end of the street you remember that you've forgotten to put your glasses on. You feel in your jacket pocket for them. They're not there. Your licence says you must wear corrective lenses when you ride but it's not too far to work.*

### What should you do?

Your eyes are the single most important source of information you have when you ride. It's estimated that 80 per cent of all riding information comes through the eyes. That's one of the reasons your vision is screened before you get your licence. If you need corrective lenses, this condition will be marked on your licence. You can be fined if you ride without them.

Your sense of hearing also helps you gather information about the riding scene. You need to listen for horns, sirens and train whistles, as well as for unusual noises coming from your bike.

### Strategies: seeing and hearing effectively

To see and hear effectively while riding:

- Scan systematically as you ride.
- Use glasses or contact lenses if you need them.
- Use a faceshield or goggles to protect your eyes, especially if you are wearing contact lenses.

- Keep the volume of headsets and sound systems at reasonable levels.
- Check that your exhaust system is not so loud that it interferes with your hearing.

## Assessing your health

### Thinking like a rider

*You wake up with a cold and you feel awful. But you have to go to work so you've taken some cold medication. As you do your pre-trip check you notice that your vision is blurry, your head feels heavy and you're tired.*

**What should you do?**

Read labels before taking medications if you plan to ride.



May cause drowsiness.

Even a mild illness, like a cold or the flu, can impair alertness, so it is sometimes better to take the bus or get a friend to drive you if you are not feeling well. If you are taking any medications, read the label carefully. If the label says that the drug may cause drowsiness or dizziness, don't ride.

If you have a health condition that you think might impair your ability to ride, be sure to check with your doctor or pharmacist before getting on the bike.

## Staying awake

### Thinking like a rider

*You've been on the road all day. You've made stops every hour, but you're getting really tired. You were planning to travel another couple of hundred kilometres.*

**What should you do?**



Being tired is one of the leading causes of crashes. Fatigue affects all stages of the **see-think-do** strategy. It can cause you to miss seeing things, slow your thinking and lengthen your reaction time.

### Strategies: staying awake

To stay alert on your bike, especially for long journeys:

- Start out well rested.
- Plan your trip so that you don't ride too far in one day.
- Take breaks. Walk around and get some exercise.
- Stop and eat, but avoid heavy meals that will make you sleepy.
- Don't count on coffee, cola drinks and other stimulants to keep you awake. They don't make you more alert.

## Keeping focused

### Thinking like a rider

*You've been riding all morning, and most of the time it's been raining. Your feet are wet and your fingers are getting numb. You wish you had worn better gear. As you think about this, you find yourself wandering out of your lane position.*

***What's happening? What should you do about it?***

When you're riding, your mind and senses should be focused entirely on riding. Distractions can affect your hazard perception and your reaction time.

### Strategies: staying focused

To concentrate while riding:

- Make sure you wear the right gear. Being too cold can reduce your ability to focus.
- Pull over and tend to whatever is distracting you: inspect your bike to identify that strange noise, check your map for the best route or get out your warmer jacket.
- Tell passengers who want to talk too much that you need to give all your attention to controlling the motorcycle and watching traffic.
- Keep predicting what might happen and planning your moves.
- Keep your eyes moving. Don't get distracted by any one thing in the riding environment.

### crash fact

Cellphone use while driving is the number one cause of distracted driving. On average, about 117 people die each year in B.C. and 1,400 are sent to hospital because someone was not paying attention behind the wheel.

*Source: Addressing the Problem of Distracted Driving and its Impacts to Road Safety, BC Government, 2009*

## Cellphones and other devices

Research shows that using a cellphone or other electronic communication device while driving significantly increases the risk of crashing. Drivers are prohibited from operating or holding hand-held cellphones or other electronic devices.

## Dangerous emotions

### Thinking like a rider

*You're riding on a busy four-lane road heading for an appointment. Suddenly a car swerves immediately in front of you into your lane. You have to brake hard to avoid running into it. The car then speeds off and quickly changes to the left lane. You think, "What a fool!" You feel your anger rising.*

#### **What should you do?**

Riding can be a frustrating experience at times. How can you control your anger while riding?



Emotions are powerful forces that can interfere with the concentration you need for riding. When you're feeling angry, anxious or sad, you become less alert. Your thinking becomes unclear. Your safety and the safety of others is in danger.

At times you may become angry or impatient because of something in the riding environment. Crowded traffic conditions and high-speed freeway riding often cause stress. Being slowed by other traffic when you're in a hurry produces tension. Riders who are tense or stressed are less tolerant of the mistakes of other riders and road users.

Whatever the cause of your upset, it is important to look at your emotional fitness to ride. Sometimes it's best to stay off your bike.



### Strategies: controlling emotions

Here are some things you can do to help you stay calm and in control while riding:

- Keep learning. Analyze previous stressful riding situations you have experienced and figure out what you can do next time to be calmer and safer.
- Plan ahead. Increase your chances of staying calm by choosing a route that avoids crowded traffic conditions.
- Allow yourself plenty of time. Being in a hurry can cause you to become angry or frustrated. Realize that if you leave late, you'll arrive late.
- Think of your own safety and the safety of others. This can help you calm down.
- Be patient — remember that all road users make mistakes.
- Be extra courteous — switch your attention from yourself to others.
- Pull off the road and take a couple of moments to calm yourself.
- Be honest. Admitting to yourself exactly how you feel can often calm you.

## Impairment

### crash fact

Half of the people killed in motorcycle crashes have alcohol in their blood and, of those, two-thirds had only one or two drinks before the crash.

*Motorcycle Safety Foundation*

### Thinking like a rider

*You're at a party with a group of friends. You intend to leave soon, but a friend offers you a beer. You say, "No, I'm riding home pretty soon." He says, "Come on, it's only light beer."*



#### **What would you do?**

Riding is a complex activity that requires smart decision-making and excellent coordination. Research shows that drinking even a little alcohol affects both of these. Therefore, any impairment makes it impossible to **see-think-do** effectively.

## Facts about alcohol

Here are some ways that alcohol can interfere with seeing, thinking and doing.

Ability	Rider's symptoms	Effects on the rider
See	<ul style="list-style-type: none"> <li>tendency to stare</li> </ul>	<ul style="list-style-type: none"> <li>eyes cannot take in information quickly enough</li> </ul>
	<ul style="list-style-type: none"> <li>eyes lose reflex abilities</li> </ul>	<ul style="list-style-type: none"> <li>can be blinded by glare</li> </ul>
	<ul style="list-style-type: none"> <li>reduced coordination of images</li> </ul>	<ul style="list-style-type: none"> <li>sees double</li> </ul>
	<ul style="list-style-type: none"> <li>reduced depth perception</li> </ul>	<ul style="list-style-type: none"> <li>cannot judge distance and speed of other vehicles</li> </ul>
	<ul style="list-style-type: none"> <li>reduced peripheral vision</li> </ul>	<ul style="list-style-type: none"> <li>may not see hazards approaching from the side</li> </ul>
Think	<ul style="list-style-type: none"> <li>reasoning becomes unclear</li> <li>reduced concentration</li> <li>emotional state becomes unstable</li> <li>awareness is reduced</li> </ul>	<ul style="list-style-type: none"> <li>thinks mental ability is sharp; however, cannot make smart-riding decisions</li> </ul>
Do	<ul style="list-style-type: none"> <li>reduced muscle control</li> </ul>	<ul style="list-style-type: none"> <li>cannot coordinate steering and braking</li> </ul>
	<ul style="list-style-type: none"> <li>increased impulsiveness</li> </ul>	<ul style="list-style-type: none"> <li>takes greater risks by speeding or taking chances</li> </ul>
	<ul style="list-style-type: none"> <li>reduced coordination</li> </ul>	<ul style="list-style-type: none"> <li>over steers or under steers</li> <li>brakes too hard or not hard enough</li> </ul>
	<ul style="list-style-type: none"> <li>slowed reaction time</li> </ul>	<ul style="list-style-type: none"> <li>cannot make turns accurately</li> <li>cannot react to emergencies quickly</li> </ul>
	<ul style="list-style-type: none"> <li>balance is affected</li> </ul>	<ul style="list-style-type: none"> <li>can lose control over the bike's stability, especially at slow speeds</li> </ul>

Alcohol myth		Alcohol fact
Alcohol won't affect me as much if I drink coffee, have something to eat, or take a cold shower.		Only time can sober you up or lower your blood alcohol content (BAC). Contrary to popular belief — food, coffee, cold showers or exercise doesn't speed up the elimination of alcohol from your system. Transport Canada states that with a BAC of .08 it takes about six hours to completely process that alcohol and return to a BAC of zero.
Beer doesn't affect riding or driving as much as other alcoholic drinks do.		A glass of beer contains the same amount of alcohol as a glass of wine or an average cocktail. In some cases, even small amounts of alcohol can cause a rider or driver to be impaired.

### crash fact

**Q. What is the most common motorcycle crash that results in death?**

- A. The rider who has been drinking, can't make a curve, runs off the road and strikes an object. This most often happens on the weekend, late at night.

*Insurance Institute for Highway Safety, Arlington, VA*

### smart riding tip

If you are feeling impaired after taking a drug or medication, don't ride until the effect has worn off.

### smart riding tip

Always read the label of any medication you are taking to see if it can affect riding. If you are taking more than one medication, ask your pharmacist or doctor about their combined effects on riding.

## Facts about drugs

### Drugs and riding

Drugs and medications can impair riding. If you are taking medications or drugs, you need to know how they can affect your ability to ride safely. Drugs affect different people differently. If there is any doubt about safety, don't ride.

### Medications

Over-the-counter medicines for allergies, coughs, colds and nausea can cause:

- drowsiness
- inattentiveness.

Prescription drugs including sedatives, tranquilizers, painkillers and some antidepressants can affect:

- alertness
- concentration
- reaction time.

These effects can continue for many hours after you take the medicine.

### Protecting yourself from impairment

If you are taking any drugs or medications, read the package label or brochure to find out the effects on riding, or ask your doctor or pharmacist how the drug or medication may affect riding safety. If you're taking more than one medication, be sure to ask about their combined effects on riding.

If your doctor or pharmacist cautions you that a medication is likely to interfere with riding safety, pay attention to their advice. If you are feeling impaired after taking a medication, don't ride — arrange for alternate transportation until the effect has worn off.

### Illegal drugs

Recreational or street drugs such as speed, heroin, and cocaine have a wide variety of effects including those noted above, as well as:

- hallucinations
- altered perception
- feelings of invincibility
- lack of judgment.

## think about

Is it worth it to drink and ride?

- You could crash and you or your passenger could be killed or injured.
- You may spend time in jail.
- You could lose your licence.
- You may have to pay large fines.
- Your insurance may not pay for any injuries or damage you cause.
- Your motorcycle could be impounded.

## crash fact

A driver who combines alcohol and drugs is nine times more likely to have a crash than a sober driver.

*Australian study,  
O. Drummer, 1994*

Combining even a small amount of alcohol with drugs increases your risk of a crash.

Marijuana may cause a rider to:

- have difficulty following the movement of vehicles or pedestrians accurately
- misunderstand visual cues from the riding environment
- delay responses, especially in emergency situations.

## Drugs and alcohol

Many drugs will cause greatly increased impairment when combined with even small amounts of alcohol. **Chapter 11, your licence**, talks about some of the fines and charges for impaired riding.

### Strategies: protecting yourself from impairment

To get home safely:

- Arrange to have your bike secured in a safe place and take a taxi or bus home if you are impaired.
- If you know you will be drinking, leave your bike at home and arrange another way to travel.
- Refuse to be a passenger when the motorcyclist or driver is impaired.
- Take a stand. Don't let people who are impaired ride a motorcycle or drive a car. Someone may thank you later for holding onto their keys.
- Arrange a ride home for a friend who is impaired.
- Use positive peer pressure by getting friends to help ensure no one in your group rides while impaired.



## Taking risks

### Thinking like a rider

*You've just bought a powerful bike and you're riding alone on a quiet country road. There is no other traffic in sight. You come to a straight stretch, and you're tempted to see how fast your new bike can go.*

### What will you do?

### crash fact

- About 87 per cent of motorcycle collisions in B.C. happen on dry roads.
- About 79 per cent of motorcycle collisions happen in daylight.

*Traffic Collision Statistics: British Columbia (2007)*

How will you manage risk? Riders are different in the way they manage risk. You probably know riders who aren't sure what to do in difficult situations and who are nervous around other road users. These people lack confidence in their skills. And then there are overconfident riders — the ones who think they are much better riders than they really are. Both underconfident and overconfident riders need to learn more about riding and take more time to practise their skills.

A few people adopt a dangerous riding style and seek excitement through speeding and taking risks. These people are thrill seekers — they enjoy speeding, tailgating or passing unsafely.

What kind of riding style are you aiming for? Do you want to stay within your skill level? Do you think it is better to be cautious than to take chances? You are responsible for the kind of riding style you choose.

### How often do you take risks?

How often do you:	Always	Sometimes	Never
Shoulder check?			
Drive within the speed limit?			
Signal?			
Avoid drinking and riding?			
Leave good space margins?			

### Strategies: identifying your riding style

To identify your riding style:

- Ask someone you trust to give you some feedback on your riding skills and style.
- Analyze your style. If you have a close call, ask yourself why it happened and think of how you can ride more safely so that it won't happen again.
- When you watch a motorcycle chase scene in a movie, be critical. Ask yourself: *What message am I getting? Do I agree with the message? Will this message affect my riding style?*
- Do you find yourself always blaming other road users? Ask yourself: *Is it really their fault, or could it be me?*

## Peer pressure

### Thinking like a rider

*You've been riding for about four months and you are excited because a couple of friends have invited you out for a ride. They are more experienced than you are. The three of you speed up together and head for the highway. Once on the highway you quickly realize that your friends are taking the curves faster than you want to.*

**What should you do?**



It's hard to resist peer pressure. All of us want to belong, so we're sensitive to what others think of us. There are two kinds of peer pressure: positive and negative. Friends who persuade you to do the right thing because they care about you are using positive peer pressure. On the other hand, friends or acquaintances who encourage you to do something dangerous are exerting negative pressure on you.

It takes a lot of practice to learn how to resist peer pressure in a way that lets you keep your friends without putting yourself in danger.

### Strategies: handling negative peer pressure

Try using these four steps to help you resist negative peer pressure:

- 1. Identify the problem.** If you speed up, you're putting yourself in serious danger. If you don't speed up, you will fall behind your friends.
- 2. Think about the consequences.** If you choose to keep up, you could get into a crash and be injured. You could wreck your bike. On the other hand, you could lose face with your friends.
- 3. Identify alternatives.** What would happen if you rode at a safe speed and met up with them later?
- 4. Follow through.** Choose an alternative and take action. Put your safety first.

### warning!

You are not allowed to carry passengers with a Yukon motorcycle GDL learners license (Class 6-34)

## Passengers

### Thinking like a rider

*You finally have your full-privilege Class 6 licence. To celebrate, you're going out with two friends for a ride. But first, you have to pick up one of the friends and take him over to his sister's where he left his bike. Just before you leave the house, you start thinking about how your bike will handle with a passenger. Will it accelerate as quickly? How will it take the curves? How will the brakes respond? Will you have trouble because of the extra weight?*

**What should you do?**

## Carrying passengers

Whenever you carry a passenger, you'll need to make adjustments both to your riding techniques and to your motorcycle in order to compensate for the extra weight of the passenger.

Carrying a passenger will affect how your bike handles. You may have slower acceleration and need longer braking distances. Your turns may be disturbed because the passenger leans more than you expect. The balance of the bike may be off, especially at lower speeds.

Check the following to prepare your bike to take a passenger:

- tire pressure (check your owner's manual for specifications for carrying extra weight)
- suspension to handle extra weight
- headlamp aim, if necessary
- mirrors, after you and the passenger are seated on the bike.

### smart riding tip

Never carry a passenger unless you are experienced and confident of your riding skills. (Experts suggest you have about 2,500 kilometres of riding experience before carrying a passenger.)

## Taking responsibility for passengers

If you are carrying a passenger, you are responsible for his or her safety.



This passenger is sitting in a safe riding position and is wearing the right gear.



### smart riding tip

Make sure your passenger is wearing an approved helmet and protective clothing and footwear. Don't carry a passenger if they can't place their feet on the footpegs.

### Strategies: keeping passengers safe

- Make sure your passenger can safely sit on the motorcycle behind you and their feet can reach the motorcycle's footpegs or floorboards.
- Your passenger must wear an approved motorcycle helmet.
- Check that your passenger is wearing adequate protective, bright clothing.
- Tell your passenger to keep their feet on the footpegs and to sit still. Don't let your passenger dismount while the bike is moving.
- Avoid heavy braking and abrupt acceleration.
- Be prepared to ride at slower speeds, especially when turning or riding through curves.

### Strategies: being a safe passenger

- Always sit facing forward and astride the motorcycle.
- Keep both feet on the passenger footpegs.
- Hold onto the rider's waist or grab rail for stability and safety. Tighten your hold when the bike is about to stop or start or when the bike makes any sudden move.
- Keep your legs away from the hot exhaust system to avoid possible burns.
- Sit still and avoid turning around and looking behind, or leaning to the side to see ahead.
- Go with the lean of the motorcycle.
- Agree on a way to let the rider know if you are uncomfortable or need to stop, so the rider can pull over.

## Aggression on the road

### Thinking like a rider

*It's late at night and you are riding in an unfamiliar neighbourhood. A vehicle comes speeding up behind you and sits right on your tail. The driver starts flicking the headlights back and forth from high to low beam.*

**What should you do?**



It's often difficult to know what to do when faced with road users who are aggressive. Their lack of courtesy and bad driving habits can lead to crashes. Although extreme aggression, or road rage, is not common, mild aggression can escalate if you are not careful. How should you respond?

### Strategies: handling other drivers' aggression

When other drivers act aggressively:

- Respond with good manners — give the other road user plenty of room and the right-of-way.
- Never return aggression — avoid eye contact and don't gesture back. As a rider you are vulnerable. Keep away from erratic road users.
- Keep calm.
- If you're in a situation in which you feel threatened, get help. Ride to a location where there are plenty of people (for example, a shopping mall or police station).
- Don't go home if you are being followed.

### Preventing aggression

How can you make sure you don't increase the anger or frustration of other drivers and riders? If you use your smart riding skills, allow plenty of space and give others the right-of-way, you can help prevent situations that cause aggression.

### **Strategies: preventing aggression**

Help prevent drivers from becoming frustrated or angry:

- Don't park in spaces reserved for people with disabilities.
- Never use turning lanes or shoulders to get ahead of backed-up traffic.
- Don't split lanes.
- Don't race your engine unnecessarily.
- Loud noise causes stress and irritation. How quiet is your bike?
- Follow at a generous distance.
- Give up the right-of-way.
- Move over for merging traffic.
- Pull over and let the other road users go by if you're impeding traffic.
- Don't block passing lanes.
- Signal your intentions well before you move.
- Don't use your horn unnecessarily.





### in this chapter

- Reduced vision and visibility
  - fog and rain
  - glare and shadows
  - night riding
- Reduced traction
  - unpaved road surfaces
  - irregular road surfaces
  - railway tracks
  - slippery surfaces
  - road design
- Turbulence and crosswinds
- Carrying cargo

What makes this rider more visible?

**Chapter 8, personal strategies**, described useful strategies for handling personal situations that can negatively influence your riding. This chapter describes some weather, road and riding conditions that can challenge you as you ride. You will find practical tips on how to control these conditions to prevent emergencies from developing.

## Reduced vision and visibility

Some environmental conditions prevent you from seeing and being seen. Mist, fog and heavy rain limit visibility. Glare from the sun or a poorly aimed headlight can momentarily blind a motorcycle rider or driver. Restricted light conditions at dawn, dusk or nighttime make it difficult to see and be seen. You should be cautious when riding in any of these conditions — they are always more dangerous for motorcyclists than for drivers. In some weather conditions, such as heavy fog or snow, it's a smart riding decision to choose not to ride.



## Fog and rain

### Thinking like a rider

*It's been a sunny day, and you're riding along a highway near the ocean. Suddenly, you ride into a fog bank. You strain to see two seconds ahead, but you can't.*

**What should you do?**

### smart riding tip

If you have any doubts about your safety when visibility is limited, pull over and stop riding.

Weather conditions like fog and heavy rain interfere with your ability to see. If you can't see clearly ahead or behind, your information about the road scene is dangerously reduced. When you lose sight of the horizon, you may have trouble keeping your bike stable and upright because you lose your sense of where you are in relation to the road.

### Strategies: riding in rain, mist or fog

- Make yourself visible. Wear brightly coloured and reflective gear.
- Keep your faceshield, goggles and windshield clean.
- Use fog lights.
- Search and scan more frequently and more carefully.
- Slow down so that you can stop within the distance you can see ahead.
- Allow more following distance.
- Use the tail lights of the vehicle in front of you as a guide.
- Choose a lane position that will keep you away from oncoming traffic and parked cars.
- Pull well off the road if you have to park your bike. It may not always be safe to stay with a parked bike if there isn't much room on the shoulder.
- Use the low beam headlight when visibility is limited so that oncoming traffic can see you and you can see more clearly.

Low beam



Use the low beam headlight in fog or heavy rain, especially at night, for better vision.

High beam



Avoid using the high beam headlight because it reflects on the rain or fog and causes glare.

## Glare and shadows

### Thinking like a rider

*You're riding west on a twisty mountain highway. The sun is starting to set. You round a curve and are suddenly blinded by the sun.*

#### **What can you do?**

Changing light conditions can reduce your ability to see. Sun glare can momentarily blind you. Riding through tunnels on a bright sunny day can be especially dangerous for riders because of the extreme contrast between light and dark. Drivers can quickly take off their sunglasses when entering a tunnel, but riders can't. Glare doesn't only happen in the daytime; it can also happen at night when the lights of oncoming vehicles can blind you.

### smart riding tip

Look ahead and anticipate areas where glare and shadows are likely to interfere with your vision.

### Strategies: overcoming contrasting light conditions

- Keep your faceshield and windshield clean and in good condition.
- Use sunglasses during the daytime.
- If blinded by glare, look down and to the sides.
- If possible, scan well ahead when you enter a tunnel.
- Slow down when blinded by glare and before entering a tunnel.

## Night riding

### Thinking like a rider

*You're riding on a multi-lane highway at night. It's dark and there is heavy traffic. You wonder how visible you are. Should you change your lane position? You wish that you had remembered to wear your jacket with the reflective stripes.*

#### **What should you do?**

Riding at night, at early dawn or at dusk is a challenge for all riders. You have limited vision and others may not see you. You have difficulty judging distances. Other road users may not be able to pick out your single-beam headlight from the other lights in the scene.



### Strategies: riding at night

- Keep your windscreen and faceshield clean and in good condition. Scratched faceshields and goggles can distort or impede your vision.
- Don't use a tinted faceshield or goggles.
- Wear reflective gear.
- Be sure the headlight on your bike is clean and correctly adjusted.
- Use the headlight appropriately. (See **Using your headlight** below.)
- To avoid glare from oncoming lights, glance to the right edge of the road.
- Watch other vehicles. They can help you determine the boundaries of the road.
- Keep your eyes moving. Scan carefully for pedestrians, cyclists and animals.
- Slow down.
- Increase your following distance.
- Increase your space margins.
- Choose a lane position that will allow you to see and be seen.

### smart riding tip

If either the high or low beam headlight burns out, use the remaining beam to get you safely off the road.

### Using your headlight

Headlight use is required by law at all times when driving.

You must dim your headlight high beam when you are within 150 metres of another vehicle, whether you are meeting it or following it. If you have trouble judging distances, as most people do, dim your headlight early.

### Overriding the headlight

Be careful not to override your headlight at night, in fog or in rain. Overriding means you are not able to stop within the distance that you can see with the headlight. When you're riding through curves, your motorcycle is leaned over and the headlight illuminates less of the road. Ride slower through curves at night and don't override your headlight.

## Reduced traction

As a rider, you will come across a range of road conditions. Many of these are dangerous because they can cause your bike to lose traction. You can prevent losing traction by scanning well ahead. This will help you find good escape routes. If you can't avoid the problem, don't panic; slow down and avoid sudden movements. This will help you stay in control and allow you to use your **see-think-do** skills.

## Unpaved road surfaces

### Thinking like a rider

*You've just come around a curve when you see that the pavement ends and gravel stretches in front of you. When you ride onto the gravel, you feel the front wheel wandering and the back wheel feels unstable, too.*

**What should you do?**

What do you do when you are faced with dirt or sandy surfaces? How can you safely ride on a gravel road?



If you have to ride onto a rough surface, always try to slow down first.

### Strategies: handling rough road surfaces

- Watch for the warning signs that indicate rough road surfaces ahead.
- Keep your head and eyes up as you ride.
- Slow down gradually and smoothly by rolling off the throttle.
- Release the brakes just before riding onto gravel to prevent a lock-up.
- Maintain a steady speed.
- Brake gently on rough road surfaces.
- Keep the bike as upright as possible. Keep a firm grip on the handlebars.
- Avoid sudden moves.
- Leave extra stopping room.

### Strategies: riding off-road

If you plan to ride off-road, don't leave your safety habits at home. Wear a helmet and appropriate gear. Use your **see-think-do** skills and make sure your bike is in good mechanical condition. Also:

- Plan ahead. If you will be coming back at night and riding on public roads, you must have a headlight.
- Ride with a buddy.
- Make sure your bike meets legal requirements if you have to travel on public roads to get to the off-road site.

## Irregular road surfaces

### Thinking like a rider

*You can see construction just ahead. A new asphalt surface is being laid on the lane to your right, making it higher than the lane you're in. There is a car right behind you and you want to get out of the way.*

**What should you do?**

### smart riding tip

Use your **see-think-do** skills to anticipate irregular surfaces and slow down before reaching them.

In this scene, you may choose not to change lanes because of the different height levels. Be on constant watch for cracks, bumps, ledges, broken pavement, potholes and uneven pavement surfaces as you ride. You can sometimes avoid these surfaces by riding around them. If this isn't possible, you'll need to use strategies that will prevent you from losing traction.

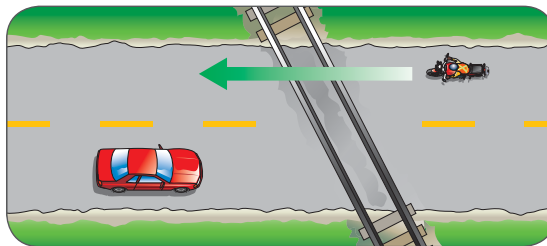
### Strategies: handling irregular surfaces

- Scan well ahead so that you have time to take action.
- Don't change direction abruptly.
- Keep your speed slow and steady.
- If pavement levels are uneven, as in a construction zone, approach anything higher than a couple of centimetres at an angle as close to 90 degrees as possible. This will prevent your wheels from catching on the lip.
- Don't worry if your bike weaves when you cross grooves in the road or bridge gratings — slow down and let the bike take its course.
- Use caution on wet wooden plank surfaces. They can be very slippery.
- When riding from one road surface level to a different level, rise off the seat, keeping your weight on the footpegs if possible.

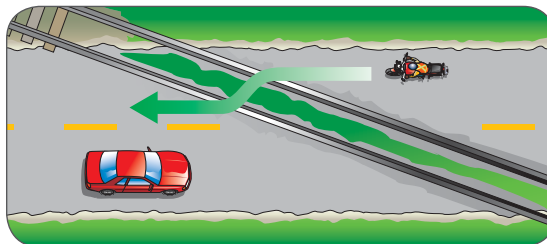
## Railway tracks

Railway tracks can jar your wheels or trap them and cause you to lose traction.

The best strategy for crossing railway tracks is to ride straight across them and stay within your lane.



If the track is angled too much and you think it could trap your wheels, slow down and angle your bike so that you cross as close as possible to a 90-degree angle (45 to 90 degrees is safe).



### smart riding tip

Plan ahead. Always position yourself so that you don't angle into approaching traffic when crossing train tracks.

### warning!

- **Black ice** is caused by moisture freezing on the road surface. Normally you can't see it. However, if the asphalt looks shiny and black instead of gray-white, be suspicious.
- **Shaded areas** may stay icy even after the sun has melted the ice on 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.
- **Wooden surfaces** wear unevenly and become slippery and dangerous with any frost, ice or wetness.

### smart riding tip

Watch for clues that the road may be slippery.

If you see ice or frost on the windshields of cars on or near the road, the roads may be slippery.

### Strategies: crossing tracks

- Keep yourself and the bike upright.
- If necessary, brake or change gears before you begin to cross.
- Anticipate how much traction is available on the track crossing. Wood and metal surfaces can be slippery.
- If the track runs parallel or nearly parallel to your path of travel, keep far enough away to prevent getting caught. Cross at a 45-degree angle and make a sharp, quick turn.
- If you must angle your bike to cross safely, move into position well ahead. Make sure you don't angle yourself into approaching traffic.

## Slippery surfaces

### Thinking like a rider

*You're riding in an industrial area of town. Many trucks and heavy equipment use the road, which is oily and dusty. It looks like it could rain at any minute. You start to worry about what the road will be like once the oil, dust and rain mix.*

#### **What should you do?**

Slippery roads can cause your motorcycle to lose traction and go down. Be cautious around hazards such as mud, wet leaves, painted road markings, deposits of oil and fuel, and sand and gravel on the road.

Rain makes the road surface slippery, too. This is especially true during the first half-hour or so of a rainfall that comes after a long dry spell. The rain mixes with the oil and dust on the road to create a slippery, oily film. This film washes away with continued rain.

### Strategies: handling slippery surfaces

- Scan well ahead to spot slippery surfaces while you still have time to take action. Painted road markings, tar patches and manhole covers can be dangerous.
- Watch where you put your feet when you stop. You don't want to lose grip by having your feet slip on oil, fuel or a painted road marking.
- Reduce your speed and don't make any sudden changes in speed.
- Leave more following distance than usual.
- If you must brake, allow twice the normal stopping distance. Brake early and apply gentle pressure to both brakes.
- Avoid the grease strip in the centre of the lane unless it's the only dry portion of your lane.
- Steer, brake and shift smoothly. Avoid sudden moves that could send the bike into a skid.
- Brake only when the bike is in an upright position.

### smart riding tip

To avoid hydroplaning, make sure your tires have adequate tread and are correctly inflated.

### warning!

Avoid going through standing water. You don't know what the water may be hiding.

### Snow and ice

Ice and snow are the most dangerous conditions for riding and you should avoid them. If you are caught unexpectedly in ice or snow and have no alternative but to ride, use extreme caution. Keep the motorcycle upright and go as slowly as possible. You may also need to skim your feet along the ground.

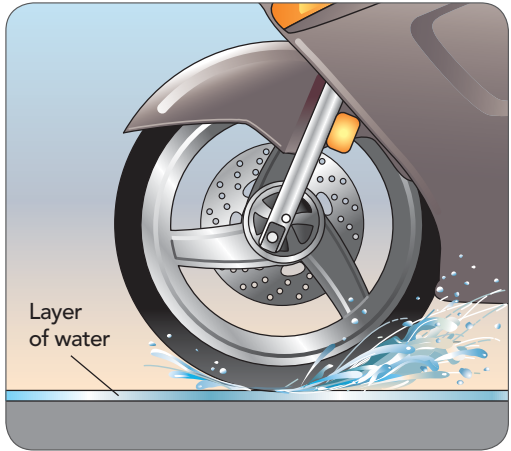
### Hydroplaning

Hydroplaning happens when tires lose contact with the road surface and float on a film of water. The tires slide on the water, and the rider instantly loses control of the steering and the brakes. You can tell if your vehicle is hydroplaning because the steering will suddenly become very light.

### Strategies: handling hydroplaning

- Reduce your speed, especially during heavy rain.
- If you start to hydroplane, roll off the throttle and avoid braking or turning.

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



## Road design

### Crowns

#### Thinking like a rider

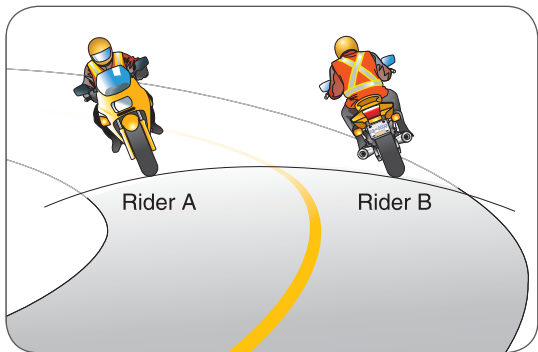
*You're on a twisty mountain highway. As you go around a sharp curve, you notice that your left footpeg is dangerously close to the pavement.*

#### What is happening?

Paved roads are not usually flat. Some are crowned — they have a slightly higher centre so that the water will run off to the sides. On straight stretches, crowning may cause your bike to drift off your intended path. If you look well ahead and make slight steering adjustments that may be necessary, you can prevent drifting.

If the road is crowned and curved, you need to be careful because you may be leaning into the crown. This gives you less margin for error. Your footpeg or side stand could drag or you could lose enough traction to fall.

Look at the angles in the illustration. Rider A has a larger angle between the road and the bike than Rider B has. Rider B needs to ride through the curve more slowly than Rider A.



## Banks

Curves are usually banked — shaped so that the inside edge of the curve is lower than the outside edge. Banking will help you make turns more precisely. But not all curves are banked, and similar curves may not be banked to the same degree. The solution is the same as for crowns — slow down before the curve.

## Hills

You can have the same problem when making a turn across the slope of a hill as on a crowned curve — the angle between your motorcycle and the road is reduced. When turning from a slope, slow down so that you can reduce the lean angle of the motorcycle and still keep in your intended path.

## Curves

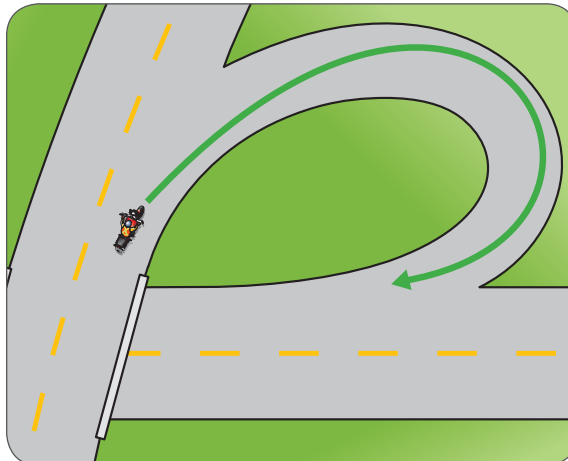
### Thinking like a rider

*You're riding on an unfamiliar road. You see a warning sign for a curve ahead and slow down. As you countersteer through the curve, you realize that you have misjudged the arc of the curve and you're heading off the road.*

### What should you do?

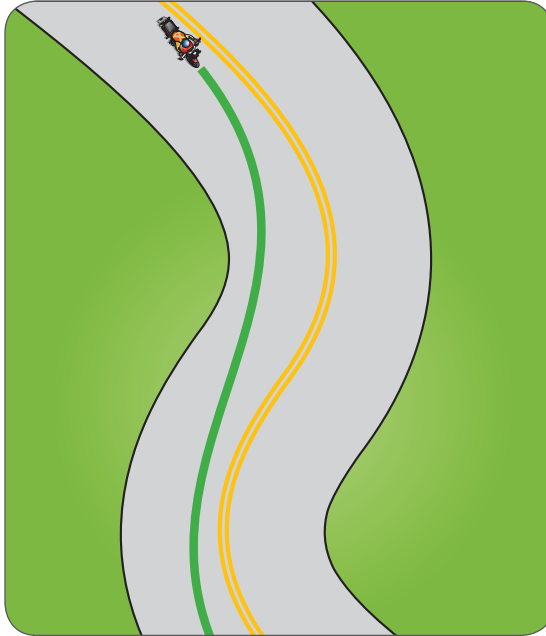
Not all curves run in a normal arc. If the shape of a curve changes, you have to be prepared to take action to compensate. Always pay attention to speed warning signs. They will give you an idea of the sharpness of the arc — the slower the speed on the sign, the sharper the arc of the curve is likely to be. If you misjudge the arc of a curve, look where you want to go and steer at a steady speed in that direction.

Decreasing-radius curve:  
This curve gets sharper as the turn progresses. Slow down before the turn, avoid braking once in the turn and countersteer or lean more.





Multiple curves: Be cautious about taking several curves. Slow down and countersteer through the curves first in one direction and then in the other.



### smart riding tip

Anticipate where crosswinds and turbulence could occur so that you can protect yourself against them.

If crosswinds are severe, stop riding.

## Turbulence and crosswinds

### Thinking like a rider

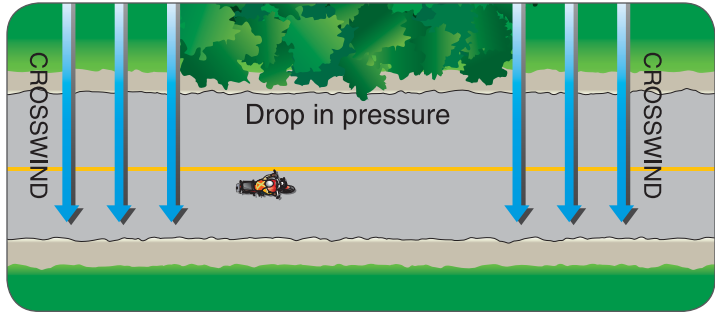
*You notice the warning signs for wind gusts just before you round the curve of a mountain road.*

### What should you do?

Motorcycles are small and relatively light. The force of the wind can be strong enough to push a motorcycle off its path of travel. Crosswinds can cause sudden, unexpected gusts of wind. Look for them in such places as the entrances and exits of tunnels and bridges, between gaps in tall buildings or on exposed roadways. Try to avoid riding in windy weather, but if you must, then be prepared to anticipate turbulence and crosswinds and to take appropriate action.

Watch out for turbulence from larger oncoming or passing vehicles. It can push you off your path. The faster large vehicles are moving, the more turbulence they make and the farther off your path they can push you. Also watch out for other vehicles that the turbulence may force into your path — small cars, bicycles, tall vehicles, campers and cars towing trailers.

Crosswinds can cause problems for you twice: once when they hit and once when they stop. On this road, the trees block the crosswinds. The rider will have to be ready for the changes in wind pressure.



### Strategies: dealing with turbulence and crosswinds

- Lean forward to reduce the size of your profile and your wind resistance.
- Keep a firm grip on the handlebars.
- Steer into the direction of the wind. For example, if the wind is coming from your left, then lean the bike to the left.
- Slow down.
- Choose a position in the centre of your lane so that you can move in either direction.
- Allow extra space on the side when a large truck or trailer is passing you.

## Carrying cargo

If you plan to carry cargo, make sure your bike is equipped with saddlebags, a luggage rack, a tank bag or mounted boxes. Be cautious. How you load your cargo, and how much of a load you are carrying, affects the stability and control of your motorcycle.

The triangle between the two axles and the rider's head is called the load triangle. A good rule of thumb is to keep cargo low and within the load triangle as much as possible. Check the balance of your cargo.



### **Strategies: making cargo stable**

- For maximum stability, carry cargo low and close to the centre of the bike, and distribute it evenly.
- Follow the weight restrictions for your motorcycle and make necessary adjustments to the suspension. Make sure that nothing is blocking the forks and shocks.
- Secure cargo tightly.
- Check that the tire pressure is correct.
- Check that the headlight is correctly aimed.
- Keep cargo away from hot areas of the bike.

### in this chapter

- Preparing for emergencies
- Collision avoidance
  - braking
  - steering
  - accelerating
  - combining avoidance manoeuvres
- Mechanical problems
  - flat tires
  - engine problems
  - headlight failure
  - wobbles
- Obstacles
  - animals
  - stationary obstacles
- At the scene of a crash...
  - you arrive at the scene of a crash
  - you are involved in a crash

### smart riding tip

When faced with an emergency, there is no fool-proof recipe for survival. The suggestions in this chapter are useful tips. To avoid getting into an emergency situation, remember to look and think ahead. If you find yourself using collision avoidance often, you have a problem with your **see-think-do** skills.

**Chapter 9, challenging riding conditions**, gave useful strategies to help you safely deal with the conditions that riders regularly face. This chapter gives you strategies to respond to emergencies that will occasionally happen. It also includes strategies to help you prevent emergencies from developing, and gives you the information you need if you are at the scene of a crash.

## Preparing for emergencies

No one really expects to be involved in an emergency, but you can be sure that at some time you will be faced with an emergency on the road. The best way to handle emergencies is to be prepared. One way you can prepare is by predicting what you would do. In this chapter, this is referred to as the “What if?” strategy. As you ride, constantly scan the riding environment, ask yourself what could happen and plan how you would react. When you use this strategy, you are pre-programming yourself to quickly and effectively respond to an emergency.

Always be alert and ride using the **see-think-do** strategy. If you are alert to what you observe and make good decisions based on your observations, you’ll usually be able to take a riding action before an emergency develops.

## Collision avoidance

You can usually avoid situations that call for quick emergency action by always looking ahead and predicting the riding scene. But there are some situations that you can’t avoid.

If you find yourself facing a road hazard or in danger of colliding with another road user, you can use three basic collision avoidance techniques: braking, steering or accelerating.

## Braking

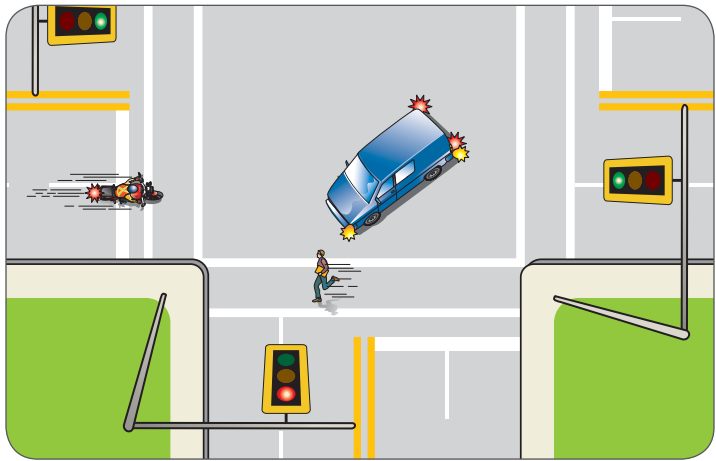
### Thinking like a rider

*You're riding straight through an intersection. The van in the approaching lane is making a left turn, but the driver has plenty of time to finish the turn before you reach the intersection. Suddenly, a pedestrian dashes into the crosswalk and the truck stops in front of you. Quickly, you check your mirrors. There is no one behind.*

**What should you do?**

### warning!

If either tire starts to whine or shudder when you are braking, ease up. You are about to lock up a wheel — this means that your wheel will stop turning and your bike will start to skid.



### smart riding tip

Learn to use ABS correctly by practising in a safe location on a flat paved dry surface free of debris. Accelerate to about 30 km/h. Then, using both front and rear brakes, brake hard enough for the ABS to apply. Do not release and then reapply 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.

Correctly using the brakes, particularly in an emergency situation like this one, can be difficult.

You need to apply both brakes smoothly, and quickly build pressure until you are at the threshold point where the wheels are almost locked up. This is sometimes called threshold braking. But if you apply too much brake, or if the road surface is less than ideal, you may skid or lose control.

### Anti-lock braking systems (ABS)

Some motorcycles are equipped with ABS to help prevent skidding when braking.

ABS does not allow you to ride faster and does not always allow you to stop sooner. On some surfaces, like gravel, the braking distance may be longer. Note that unlike ABS in cars, motorcycle ABS systems do not allow you to both brake and steer at the same time. But ABS can help prevent wheels from locking up on wet and slippery surfaces.

In an emergency situation, on a motorcycle equipped with ABS, apply continuous, firm, hard pressure to both front and rear brake levers. The computerized sensors automatically release and reapply the brakes to prevent the wheels from skidding.

### Strategies: avoiding a skid

Skids are a major cause of crashes. Skids happen when you run out of traction. (See the physics for riders section in **chapter 6, see-think-do.**) To avoid a skid:

- don't brake with too much force
- don't accelerate suddenly
- don't turn too sharply.

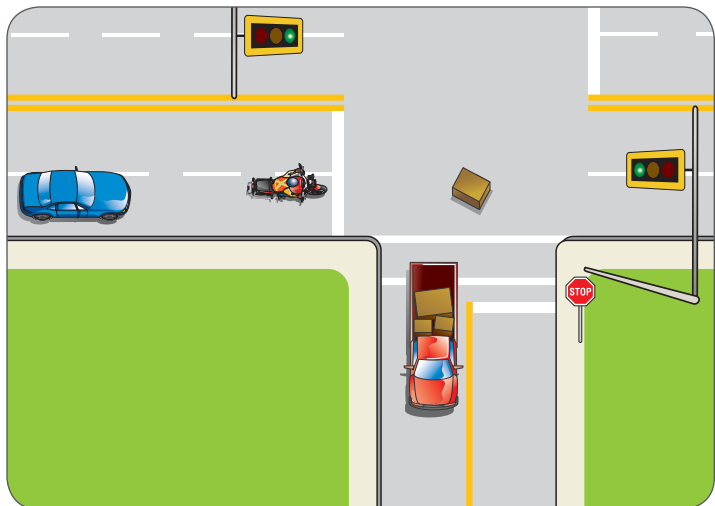
It's much easier to avoid a skid than to get out of one. Keep good speed and steering control, and you are less likely to skid.

## Steering

### Thinking like a rider

*You're riding straight through an intersection. The pickup truck in the approaching lane makes a left turn in front of you. Just as the driver completes the turn, a box falls out of the back of the truck into the middle of the intersection.*

**What should you do?**



Sometimes countersteering is a better solution than braking.

In a situation like this one, you may not have enough space to stop, but you may see that there is space to quickly steer around a problem. Using countersteering, you can quickly shift to one side or do two quick turns — steering to one side of the hazard and then back into your original path.

### warning!

Avoid braking when steering abruptly. This could cause you to skid and fall.

### Strategies: steering

To steer safely around an obstacle:

1. Look in the direction you want to go.
2. Apply firm pressure to the handlebar on the side to which you intend to turn.
3. To return to your original direction of travel, press on the other handlebar once you have cleared the hazard.

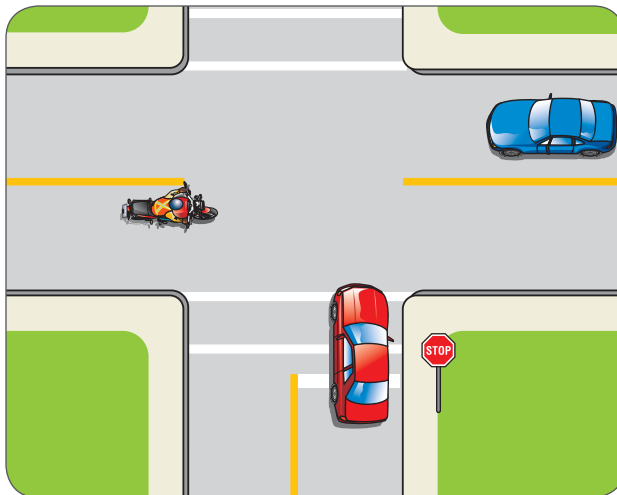
## Accelerating

### Thinking like a rider

*You're riding straight through an intersection. You have the right-of-way, and you can see a car waiting at the stop sign to the right. Suddenly, the car pulls forward, heading straight for the side of your bike. You can't steer to the left, because there's oncoming traffic in the other lane. You can't stop, because you will end up right in the driver's path.*

**What should you do?**

Sometimes accelerating will help you avoid a collision. Accelerate only if you can't brake or steer around.



In a scene like this, the only way to avoid a crash may be to speed up to get past the collision point before the other vehicle gets there. This is when it's extremely important to be in the correct gear. If you are in the correct gear for the situation, you will have all the power you need to accelerate instantly. See the section on speed control in **chapter 6, see-think-do**, for more information on gears.

### Strategies: using the "what if?" strategy

You will have to respond instantly when you're faced with a sudden emergency. You won't have time to go through a point-by-point thinking process. Prepare yourself for possible emergencies by using the "What if?" strategy.

As you ride along, look ahead and see what could possibly happen. Ask yourself: *What if ...?* (for example, *what if a box fell off that truck? what if that car ahead suddenly stopped?*) That way, if something unexpected happens, your mind will be prepared and your body will respond correctly.

Here are some questions you might ask when practising "What if?"

To decide whether to brake, ask:

- *Is the road surface good enough? Can I stop without skidding?*
- *Is there enough space in front to stop?*
- *Is there enough space behind to stop?*

To decide whether to steer around, ask:

- *Is there enough space? Will I end up in oncoming traffic?*
- *Is the road surface good enough? Could I lose traction and go down?*

To decide whether to accelerate, ask:

- *Do I have enough power to speed up in time?*
- *Is there a place to go? Is there enough space up ahead?*
- *Is this the safest option?*



## Combining avoidance manoeuvres

Often, the best option is to combine two of the basic manoeuvres. The main rule is **do one thing at a time**. If you brake and steer at the same time, you will probably skid. If you accelerate while steering sharply, you will need to lean more, and you may lose traction and fall.

## Mechanical problems

A motorcycle rider is more vulnerable than a car driver, so you need to keep your motorcycle well maintained and check it for safety every time you go out on the road. Even so, you can have problems with your vehicle. If you have any kind of motorcycle breakdown, pull well off the road and stop and deal with the problem.

### Flat tires

#### Thinking like a rider

*You're riding along a busy freeway when you notice that the steering suddenly feels heavy. You can hardly keep control. You realize that your front tire has gone flat.*

#### What should you do?

A flat tire is dangerous. It can cause the motorcycle to jerk or sway from side to side.

### smart riding tip

To avoid a flat, check your tires carefully before you ride. See **chapter 3, knowing your motorcycle**, for tips on checking tires, and watch where you're riding to avoid glass, nails or other debris that could cause a puncture.

#### Strategies: handling a flat tire

If you have a flat tire on the road:

- Ease off the throttle.
- Avoid braking if possible. But if you must brake, use the brake for the tire that isn't flat.
- Hold the handlebars firmly and keep the motorcycle upright.
- Shift your weight away from the flat tire.
- When the motorcycle slows, pull over to the side of the road and stop.

## Engine problems

### Thinking like a rider

*You're riding along a busy highway. All of a sudden, your motorcycle engine stops running.*

#### **What should you do?**

You never know when the engine may die. If the engine has seized, the rear wheel may lock up, causing a skid.

### Strategies: handling engine failure

If your engine ever fails:

- Immediately squeeze the clutch lever to disengage the engine from the transmission.
- 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, if your motorcycle is equipped with them.
- Set out flares or a warning triangle if it is dark or visibility is limited.
- Stay with your motorcycle.
- 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.

## Headlight failure

### Thinking like a rider

*You're riding along a curvy road at night when your headlight goes out and suddenly you can't see the road ahead.*

#### **What should you do?**

It is dangerous and illegal to ride at night without a headlight. If either the high or low beam burns out, use the remaining beam to illuminate the road ahead, and replace the failed light bulb as soon as possible.

### Strategies: handling headlight failure

If your headlight ever fails:

- Switch from low beam to high beam or vice versa to see if the other beam will work.
- Turn on the hazard lights if your motorcycle is equipped with these.
- If neither low or high beam will work, slow down, pull off the road and get help.

## Wobbles

### Thinking like a rider

*You're heading away for the weekend with all your gear loaded on the back of your motorcycle. As you take the first curve in the road, your front wheel and handle bars start to shake from side to side.*

#### **What should you do?**

Your motorcycle has developed a speed wobble. Most speed wobbles are the result of low tire pressure, incorrect loading, wheels that are bent or not properly aligned, accessories that aren't well mounted or the reaction of your motorcycle to a combination of wind, speed and road surface conditions. Sometimes this happens within a narrow speed range, and if you change speed, your motorcycle may come out of the wobble.

### Strategies: coping with wobbles

If your motorcycle begins to wobble, you should react immediately or the vibration could increase. Try these strategies:

- Grip the handlebars firmly to dampen the wobble. Go with the wobble while gradually slowing it down. Don't try to fight it.
- Adjust your speed to try to come out of the wobble.
- Do not apply the brakes — that could make it worse.
- Rise slightly off the seat to move your weight down to the footpegs. Keep your weight as far forward as possible. This will help make the bike more stable.
- Whether the wobble continues or stops, steer to the side of the road and stop. Examine your bike — wheels, load, tire pressure. Adjust as necessary.

## Obstacles

There are two main types of obstacles you may encounter while riding — moving and stationary. If you meet a moving obstacle such as an animal, you're never sure what it's going to do. This makes it more difficult to steer around it. Stationary obstacles are easier to deal with, but if they appear suddenly, you may have to decide quickly whether to steer around or go over them.

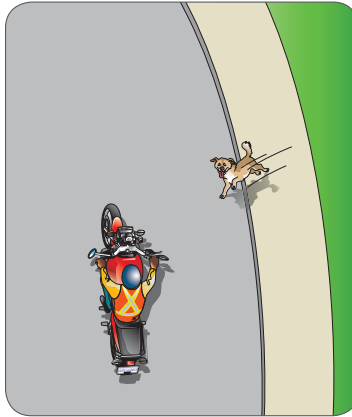
## Animals

### Thinking like a rider

*You're riding along a residential street at a moderate speed. A large dog barks and starts running toward you.*

**What should you do?**

If a dog runs toward you, slow down as you come close to it. Just before you reach the dog, steer away and accelerate.



Motorcycles seem to attract dogs. If you're not careful, you can become so concerned with trying to avoid the dog that you could ride into the path of a car.

In Yukon, 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 passenger.

### crash fact

About one in 25 crashes in B.C. are caused by wildlife collisions. In 2007, five people were killed and 449 people injured in collisions in which animals were a contributing factor.

*BC Traffic Collision Statistics, Police-attended injury and fatal collisions (2007)*

### Strategies: avoiding animals

To prevent a collision with an animal:

- Scan the sides of the roadway ahead for animals.
- Watch for animal crossing signs when riding through farming or wooded areas. Slow down in these areas.
- Be extra cautious around dusk and dawn. This is when animals move around to feed, and it is also harder for you to see them at these times.
- Remember that wild animals often move in herds. If you see one animal, there may be more.
- Take extra caution in spring and fall — vegetation growth in the ditches along the side of the road in spring is an attractive source of forage for many wildlife species, and in the fall, many species are on the move during mating season, causing an increased hazard.
- If you see an animal on or near the road, remember that sounding your horn may startle it and cause the animal to run out into your path.

## crash fact

Motorcyclists in Yukon face a high risk of being in a collision with wildlife on our long country roads.

### 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 motorcycle out of control.
- Leave a wide margin when you ride 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 brakes just before hitting the animal.

## Stationary obstacles

### Thinking like a rider

*You're heading across a bridge at rush hour and traffic is heavy. You're feeling uncomfortable because you have no escape route. Suddenly, a large plank drops off the pickup truck ahead and lands in front of you.*

**What should you do?**

There are times when you are not able to stop or steer around an obstacle, and the only choice is to go over it.



### Strategies: going over obstacles

If you have to ride over an obstacle, you'll need to have maximum balance and control of your bike:

- Slow down if possible.
- Approach in an upright position and try to strike the object head-on at a 90-degree angle.
- Grip the handlebars firmly.
- Lighten the front end of your bike just before hitting the obstacle by releasing the brakes and accelerating slightly.
- Rise slightly on the footpegs so that you can absorb the shock with your knees and elbows.
- Pull off the road when you can, and check your tires, rims and spokes for damage.

## At the scene of a crash

### Thinking like a rider

*You're riding along a country road. Suddenly you hear screeching brakes followed by the sound of a crash up ahead. You slow down, and around the next curve you see that the car that was in front of you has rear-ended a truck.*

**What should you do?**

### 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?

## You arrive at the scene of a crash

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

### Strategies: assistance at a crash scene

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

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

**smart riding tip**

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

**smart riding tip**

Stay alert and be prepared at all times to take appropriate action to avoid a crash.

## You are involved in a crash

### Legal responsibilities

You have certain legal responsibilities if:

- you are 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.
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 riders or 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.





**smart riding tip**

search motorcycle safety online to find other useful information concerning riding motorcycles.

## Licensing information

Contact the nearest Yukon Motor Vehicles office to get information on licensing classifications and requirements.

For general information call:

- In Whitehorse: 667-5315
- Toll Free throughout Yukon 1-800-661-0408 ext. 5315

## Booking road tests

- Contact your nearest Yukon Motor Vehicles office for information on booking road tests. Local contact information may be found on the back of this manual.

## Website addresses

- [www.hpw.mv.gov.yk.ca/mv/](http://www.hpw.mv.gov.yk.ca/mv/)

## Internet

Use the Internet to find out more information on riding. Here are a few keywords you might want to search:

- safe riding
- motorcycle safety
- traffic signs
- motorcycle gear
- motorcycle clubs
- motorcycle fitness
- road rage
- motorcycle emergencies
- riding education
- motorcycle facts



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## Examiners' tips — Class 6 road test

Here are some tips for passing these tests:

- Make sure you're familiar with the motorcycle you are using and how it handles. Make sure it can pass a safety inspection and that all lights work, the horn works, and it has valid insurance and vehicle registration. Also make sure the controls are adjusted for you.
- Keep your eyes moving to watch for hazards.
- Avoid staring at objects. Instead, look where you want to go.
- Ride in a safe lane position.
- Keep to posted speed limits. Don't try to keep up with speeding traffic.
- Watch for school zones and playgrounds. Speeding through school zones and playgrounds is a common reason for riders to fail their test.
- Make full stops for stop signs, and stop in the correct position.
- When it's safe to move out, pull out slowly, scanning the intersection.
- Practise stopping and starting on hills.
- When turning right, shoulder check to the right to ensure there are no cyclists, pedestrians or other road users heading straight through the intersection and into your path.
- Mirror check and shoulder check whenever you change lanes or direction.
- Keep a safe distance from other vehicles around you.
- Scan intersections before riding through, even if the light is green when you approach.
- Develop the habit of looking for potential hazards. Study the list of hazardous situations in this guide and call them out to the examiner during the hazard perception part of the road test. For example, many drivers have failed to call out blind driveways during their tests.



## Licensing information

Contact your nearest Yukon Motor Vehicles office to get information on licence classifications and requirements.

For general information call:

- Whitehorse, 667-5315
- toll-free throughout Yukon: 1-800-661-0408, ext. 5315

## Booking road tests

- Whitehorse, 667-5315
- other communities, contact the territorial agents or territorial representatives

### Yukon Territorial Agents

Dawson City Liquor Store, 993-5348

Faro Liquor Store, 994-2724

Haines Junction Liquor Store, 634-2201

Mayo Liquor Store, 996-2276

Watson Lake Liquor Store, 536-7311

### Yukon Territorial Representatives

Carmacks Community Housing Office, 863-6411

Carcross Community Housing Office, 821-4281

Teslin Community Housing Office, 390-2024

Old Crow, VGFN Office, 966-3261

Ross River Community Housing Office, 969-2347

## Website addresses

- Visit Motor Vehicles, [www.hpw.gov.yk.ca/mv](http://www.hpw.gov.yk.ca/mv)
- Road Safety information, [www.hpw.gov.yk.ca](http://www.hpw.gov.yk.ca)
- Yukon road report, [www.511yukon.ca](http://www.511yukon.ca)