



# the rider's safety handbook



**THINK!**

**ROAD  
SAFETY**



Government of  
South Australia

This handbook is a guide to **safe motorcycle riding technique**.

It includes the key road rules for motorcycle riders but it is not an interpretation of the law.

For more information about the road rules and licence requirements for motorcycle riders:

- visit the MyLicence website [www.mylicence.sa.gov.au](http://www.mylicence.sa.gov.au)
- refer to *The Driver's Handbook*, which can be downloaded from the MyLicence website or purchased from Service SA Customer Service Centres and newsagents.

Other resources for motorcycle riders:

- Rider Safe motorcycle training (MR230 pamphlet) available from Service SA Customer Service Centres
- Rider Safe Returning Rider Course (MR234 pamphlet) available from Service SA Customer Service Centres
- Rider Safe motorcycle training course [www.mylicence.sa.gov.au/my-motorcycle-licence/rider-safe-training](http://www.mylicence.sa.gov.au/my-motorcycle-licence/rider-safe-training)
- A list of learner approved motorcycles can be found on [www.service.sa.gov.au](http://www.service.sa.gov.au)
- The Good Gear Guide for Motorcycle and Scooter Riders [www.infrastructure.gov.au/media-centre/publications/good-gear-guide-motorcycle-and-scooter-riders](http://www.infrastructure.gov.au/media-centre/publications/good-gear-guide-motorcycle-and-scooter-riders)

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The Department for Infrastructure and Transport thanks the New South Wales Roads and Maritime Services for permission to reprint material from their *Motorcycle riders' handbook*.

# ride to survive

Motorcyclists have a higher risk of death or serious injury than all other road users, mainly because they are much less protected than other vehicle drivers.

Motorcyclists involved in crashes tend to sustain multiple injuries to the head, chest and legs, either from direct contact with solid objects or as a result of crash forces.

Motorcyclists have four disadvantages that affect their safety compared to other vehicle drivers:

**vulnerability** – motorcycles offer minimal protection

**instability** – two-wheeled motorcycles are less stable than four-wheeled vehicles and more susceptible to slippery road conditions

**low visibility** – motorcycles are less likely to be seen by other road users because of their relatively small size and low threat in the traffic environment

**risk-taking behaviour** – motorcyclists who speed, ride aggressively and fail to obey road rules increase their crash risk.

This handbook describes the various skills needed for **safe motorcycle riding**. It provides details about **good riding technique**, which will enable you to stay alert, ride defensively and cope with hazards. It also includes the key road rules for riders.

**You are responsible for your own safety on the road.** It is up to you to practise, maintain and further develop your safe riding skills. You also need to wear appropriate protective gear and know your own and your motorcycle's capabilities and limitations.

Enjoy your riding, but above all **ride to survive**.

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# introduction

## WHEN ARE MOTORCYCLE RIDERS MOST AT RISK?

Statistics indicate that serious casualty crashes involving motorcyclists in South Australia:

- are more likely to occur in metropolitan Adelaide
- are mostly single vehicle crashes
- occur more frequently on Saturdays & Sundays
- are more likely to occur if the rider is under the influence of alcohol or illegal drugs
- are more likely to occur if the rider does not have a motorcycle licence.

Research also shows:

- Riders using sports motorcycles are more likely to be involved in serious injury crashes than riders on other types of motorcycle. Sports motorcycles are typically ridden at higher than average speeds, which reduces the time available to spot, interpret and react to a hazard, and increases the potential number and severity of injuries.
- A large number of fatal motorcycle crashes occur on motorcycles that have been borrowed. Every motorcycle handles differently and it is easy to make mistakes on an unfamiliar motorcycle.
- Riding at night, particularly on country roads, is considerably more dangerous for motorcyclists than other road users. The risks of hitting an animal, misjudging a curve or not seeing a change in road surface are all increased at night.

The incidence of motorcycle death and serious injury in South Australia has increased in recent years as a proportion of all road serious casualties, while all road user trauma has generally decreased, motorcyclist casualties are reducing at a slower rate.

## FIRST-TIME RIDERS

The minimum age a person may gain a motorcycle learner's permit is 18 years. Some exemptions are available for people aged under 18 if they live in a prescribed locality (i.e. regional South Australia) or if they are the holder of a provisional licence. For more information refer to [www.mylicence.sa.gov.au](http://www.mylicence.sa.gov.au)

When learning to ride a motorcycle, start on very quiet streets that you know well. Start off riding in daylight. Only ride at night once you have riding experience and feel confident about controlling the motorcycle.

If you are under the age of 25 years, you must not ride between midnight and 5am, regardless of whether you already hold a driver's licence for another class unless you meet the exemption criteria which can be found at [www.mylicence.sa.gov.au/gls/exemptions](http://www.mylicence.sa.gov.au/gls/exemptions)

Talk to other riders to tap into their knowledge and experience.

You must not carry a passenger either as a pillion or in a side car. This includes a person acting as a Qualified Supervising Driver.

You must not tow a trailer.

You must hold your motorcycle learner's permit for a minimum period of 12 months, regardless of your age and regardless of whether you already hold a licence.



You must not ride a motorcycle unless you have zero blood alcohol concentration (BAC). This restriction applies irrespective of whether you hold a full licence.

Rider Safe training courses cover the skills needed for safe on road riding.

The Basic Rider Safe training course must be successfully undertaken before you can obtain a motorcycle learner's permit. If you reside more than 100 km from a Rider Safe training centre, you are exempt from undertaking the Basic and Advanced courses.

# 1 preparing to ride

Riding a motorcycle puts you at a higher crash risk compared to driving other road vehicles, and if you are involved in a crash the chances of being injured are very high. Well-prepared riders can reduce their crash risk.

## Concentration

Your survival depends on your full concentration on the road.

Factors that can limit your ability to concentrate include:

- fatigue
- alcohol
- drugs.

Your mood also can affect your ability to concentrate. If you are angry or stressed, for example, you may be less safety conscious than when you are relaxed.

If you can't concentrate fully, don't ride.

## FATIGUE

Riding a motorcycle is much more tiring than driving a car.

Many people associate fatigue with falling asleep at the controls, but a lapse in concentration is as dangerous for motorcyclists.

Indicators that you are suffering from fatigue and a lapse in concentration include:

- arriving at a corner more quickly than you expected
- running wide on a corner
- rough gear changes
- failing to see a sign
- daydreaming
- yawning and a dry mouth
- stiff joints (neck, knees and wrists).



Tips to help manage fatigue:

- Stop about every one and a half hours or every 150 kilometres - even if you don't feel tired.
- Drink plenty of water to keep hydrated.
- Avoid too much coffee and sweet soft drinks.
- Do not drink alcohol.
- Eat small amounts frequently—simple foods like fruit, nuts, a muesli bar or a little chocolate.
- Avoid fatty foods and large meals before or during a ride.
- In winter, dress to protect yourself from the cold—a drop in your body's core temperature makes you less alert and slows decision-making and reaction times—but don't make yourself too warm.

**If you feel fatigued, don't ride.**



Riders can become **dehydrated quickly**, particularly in hot weather and when riding over long distances. Dehydration can increase fatigue, which can reduce your level of concentration, impede your judgment and slow your reaction times.



# 1 preparing to ride

## ALCOHOL

Alcohol increases your risk on the road by adversely affecting reflexes, coordination, depth perception and judgements about risk-taking behaviour. These effects are compounded by the lack of protection and stability associated with riding a motorcycle.

It's not just your own mistakes that are dangerous when you drink; you are less able to react properly to other people's mistakes as well.

The legal blood alcohol concentration (BAC) limit for full licence holders of licence class R is 0.05 grams of alcohol in every 100 millilitres of blood. However full, probationary or provisional licence holders of licence class R-Date are restricted to zero BAC.

**If you drink, don't ride.**



All learner, provisional and holders of an R-Date licence classification, irrespective of whether you hold a full licence are restricted to zero blood alcohol concentration.

## DRUGS

Many drugs—both legal and illegal—can affect your ability to ride a motorcycle safely. Drug driving is a major contributor to road deaths in South Australia.

Some prescription and over-the-counter medications such as cold or allergy tablets can leave you weak, dizzy, drowsy or slow to react in an emergency. Check with your doctor or pharmacist and read the label to find out if the medication will affect your riding capability.

**If you take a drug or medication that can affect your riding, don't ride.**



Police conduct random roadside saliva tests to detect the presence of THC (cannabis), Methylamphetamine (speed) and MDMA (ecstasy).

## Protective gear

### HELMETS

The most essential item of protection for a motorcyclist is a helmet. The law requires all motorcyclists and their passengers (including sidecar passengers) to wear an approved motorcycle helmet that meets either the Australian or European standard for helmets and is in good repair and proper working order and condition.



### CHOOSING A HELMET

Helmets are available in many different makes and styles.

There are two main types: full face and open face. Full-face helmets have a chin panel and an integrated visor that offer better face and eye protection than open-face helmets. Around half of all impacts to the head in motorcycle crashes occur to the face. Full-face helmets also offer better wind and sun protection. They do not impair peripheral vision.

Light coloured helmets are generally cooler in summer than dark helmets, and brightly coloured helmets are more likely to be seen by other drivers.



Make sure the helmet you buy is new and is the right fit for your head. **Never buy a second-hand helmet.**

# 1 preparing to ride

## MAKING SURE A HELMET FITS YOU PROPERLY

Helmet sizes vary among manufacturers and models. Most are sold in S, M, L or XL sizes. The best way to find the right size is to try several on and follows these steps:

### 1. Put the helmet on:

- Hold the helmet by the chin straps. The opening of the helmet should face you with the front pointing down.
- Put your thumbs on the inside of the straps, balancing the helmet with your fingertips.
- Spread the sides of the helmet apart slightly and slip it down over your head using the chin straps.
- Be sure it sits squarely on your head. It shouldn't be tilted back on your head like a hat.
- It should fit firmly and may even feel a bit too tight until it is in place correctly.

### 2. Before fastening the straps, run these checks:

- The cheek pads should touch your cheeks without pressing uncomfortably.
- There should be no gaps between your temples and the brow pads.
- If the helmet has a neck roll, it shouldn't push the helmet away from the back of your neck.
- On full-face helmets, press on the chin piece towards your face. The helmet or face shield should not touch your nose or chin. If it does, the helmet is too small.

### 3. Fasten the straps, then run these checks:

- Move the helmet from side to side and up and down with your hands. If it fits properly, your skin should move as the helmet is moved. You should feel a slight, even pressure all over your head.
- A new helmet should be as tight as you can comfortably wear it. Helmets tend to loosen up over time as the comfort liner compresses with use. If your helmet is too large, it will move around when you least want it to; it can let in noise and wind; and worst of all, it may come off in a crash.
- With your head straight, try rolling the helmet forward off your head. You should not be able to pull it off. If you can, the helmet is too big.

**4.** Take off the helmet and run these checks:

- Look for pressure points on your head or face—indicated by sore places and red marks—which can be uncomfortable and cause a headache during a long ride. If the helmet is exerting any pressure points, try the next largest size or a different brand.

**5.** If you are still unsure about the fit, put the helmet back on and wear it around the store for a while.

For more information on helmets, including protection and comfort ratings, visit the Consumer Rating and Safety of Helmets website [www.crash.org.au](http://www.crash.org.au).

## TAKING CARE OF YOUR HELMET

Replace your helmet:

- after a crash or a significant impact
- if it becomes loose fitting
- if the straps become worn.

Clean your helmet only with mild soapy water, as some chemicals and cleaners may weaken the shell.

# 1 preparing to ride

## EYE PROTECTION

Only helmet visors and goggles can properly protect your eyes from wind, dust, rain, insects and stones thrown up by other vehicles.

Motorcycle screens (fairings) do not provide adequate protection for the eyes—you need to wear a visor or goggles as well.

Visors and goggles should be:

- shatterproof, as required under Australian Standard AS 1609
- equipped with clear lenses for use at night
- clean and unscratched.

You might also consider buying a visor equipped with a demister.



## GLOVES

Purpose-made gloves are the second most important item of safety gear for motorcyclists after a helmet. Hands often touch down first during a crash, and are likely to be seriously injured even at low speeds if a rider is not wearing gloves.



Choose motorcycle gloves that have:

- a strengthened palm area shaped for riding
- knuckle protection
- a fastener such as zipper or Velcro around the wrist to prevent them from sliding off
- a gauntlet that overlaps the jacket sleeve.

# 1 preparing to ride

## JACKETS AND PANTS

Wearing good quality protective clothing that is specifically designed for motorcycle use and made by a reputable manufacturer can significantly reduce injury in a crash, particularly abrasions and lacerations. Motorcycle protective clothing aims to prevent abrasion and provide impact protection to exposed areas such as elbows and knees.



Human skin is very susceptible to abrasion from sliding friction. Without protective clothing, it is likely that a rider sliding on bitumen will lose approximately 1mm of flesh for every 2km/h the rider is travelling over 40km/h. Sliding on bitumen can also abrade bones, which can result in fatal infections. Even when the skin is fully covered by protective clothing, abrasion injuries can still occur in the event of a crash.



You have a better chance of being seen by other road users if your protective clothing is brightly coloured. Research shows that motorcyclists are less likely to be involved in a motorcycle crash when they are wearing high-visibility or fluorescent clothing.

Clothes that are purpose-made for motorcycle riding not only give you better protection than ordinary clothes in the event of a crash, but they are generally more comfortable to wear while you ride.



Choose a jacket and pants that:

- are tailored for a riding position
- completely cover your arms, legs and body
- are secure around wrist, waist and ankles to prevent sliding up and exposing skin
- provide impact and abrasion protection for your back, shoulders, elbows, hips and knees
- are highly resistant to abrasion and tearing.



# 1 preparing to ride

## MOTORCYCLE AIRBAG JACKETS

Airbag jackets give excellent core body protection in most crash situations.

They typically have two airbags: one that pops out of the collar to protect neck, shoulders and collarbones; and a larger one that pops out of the jacket body to protect the entire torso, front and back. When the rider falls off a bike in a crash, an anchoring cable connecting the jacket to the bike frame separates, activating a CO<sup>2</sup> cartridge that inflates the airbags in around 100 milliseconds (one tenth of a second).



## FOOTWEAR

Purpose-made motorcycle boots can help prevent your feet and ankles from being crushed during a crash.

Choose boots that have:

- a strengthened instep (between the ball of the foot and the heel)
- ankle protection
- shin protection
- a fastener such as zipper or Velcro around the leg to prevent the boot from sliding off
- a high boot style to overlap the pants
- a gear change cover to prevent wear.

At a minimum, wear a rugged work or combat style boot with good grip, tight ankle support and a strong sole.



## OTHER PROTECTIVE ITEMS

You might also consider buying:

- a back protector to protect your spine in a crash.
- a kidney belt to support your lower back and reduce fatigue while riding.

# 2 safe riding

Riding a motorcycle is never risk free, but you should aim to ride 'low risk'. A low-risk rider has good observation, speed control, road positioning, gap selection and hazard perception skills.

Your skills will gradually build with practice and experience as you ride in different conditions and learn to detect and handle various hazardous situations.

## Basic riding techniques

The key to good riding technique is smoothness, and the key to smoothness is good preparation, perception and practice.

### RIDING POSTURE

When you first get a motorcycle, take the time to adjust the controls to suit your height and build. Correct riding posture reduces fatigue and improves your control of the motorcycle.

To achieve the correct riding posture:

1. Sit well forward.
2. Keep your head up and point your chin in your direction of travel.
3. Relax your arms and place minimal weight on your wrists.
4. Keep your back relaxed and support your weight with your stomach muscles.
5. Grip the motorcycle firmly with your legs and knees.



In curves, point your chin through the turn and scan the road with your eyes.

## Observation

The road environment is constantly changing. This calls for high levels of observation by the rider.

### SCANNING

The key to good observation is scanning. Keep your eyes moving constantly, looking at the environment around you:

- in the distance
- at the road surface
- to your left and right
- at your mirrors and instruments.



Before moving off from traffic lights, check in all directions to make sure the traffic has stopped.

### MIRRORS

Check your mirrors every few seconds so you always know what is behind you. In particular check your mirrors:

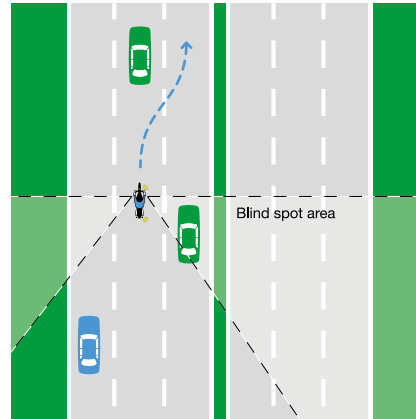
- before changing your speed or road position
- when preparing to turn or change lanes, especially if you plan to turn where others may not expect it, such as at laneways, driveways and side streets
- when you are stopped behind another vehicle.

# 2 safe riding

## HEAD CHECKS

Like car drivers, motorcycle riders have ‘blind spots’ — the road areas slightly behind you to your left and right that cannot be seen in your mirrors.

Always do a head check, by turning your head and looking over your shoulder on both sides to see the blind spots, just before you change your position on the road (make a turn, exit a roundabout, move off or change lanes). A head check is the only sure way to see if any vehicles are in your blind spots.



Check blind spots before changing your road position.



Always do a head check before turning right into a side street or driveway in case a following vehicle has not seen your indicator and is overtaking you.

## Speed control

Motorcyclists need to be always prepared in case something unexpected occurs. The faster you ride, the less time you have to react and respond, and the greater are your chances of crashing—and of serious injury and death if you do crash.

Reducing your speed is the best way to give yourself space and time to react and respond to potential hazards.

## CRASH AVOIDANCE SPACE

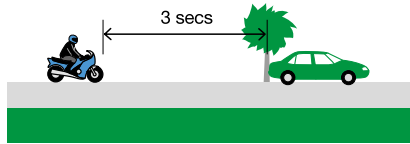
Low-risk riders manage their speed to maintain a ‘crash avoidance space’ in front of their motorcycle. The size of the space is determined by the rider’s reaction time and response time.

A rider who is fit, concentrating and alert needs at least **one and a half seconds to react and one and a half seconds to respond** to a sudden and unexpected change in conditions.

Therefore, you need a minimum of three seconds to react and respond to a potentially hazardous situation.

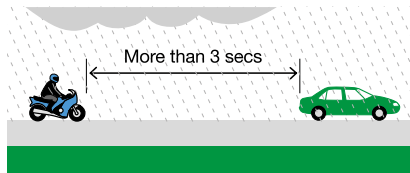
Calculate a **three-second crash avoidance space** when following another vehicle, by using this technique:

1. As the rear of the vehicle in front passes a stationary object at the side of the road, such as a power pole, tree or sign, start a three-second count ('one thousand and one, one thousand and two, one thousand and three').
2. If you pass the stationary object before you finish counting, you are following too closely. Your crash avoidance space is not large enough.
3. Slow down and repeat the count again until you attain the full three-second crash avoidance space.



Stay at least 3 secs behind the vehicle ahead.

When driving in poor conditions, such as in rain, at night and on gravel roads, you may need to increase your crash avoidance space to four or more seconds.



Increase following distance in poor conditions.

It is difficult to maintain a crash avoidance space behind you, as that space controlled by the driver or rider behind you.

However, if a vehicle is travelling too closely behind you, you can slow down slightly to increase the space available in front of you. This will allow you to brake more gradually if you encounter a hazard, which will allow the following vehicle more time to stop as well.



When you stop behind another vehicle, leave at least one and a half motorcycle lengths between your front wheel and the back of the vehicle in case the vehicle rolls back or you need to ride around it. Apply the brake but remain in first gear. Watch for any vehicles approaching from behind and be ready to move off if necessary to avoid being hit.

# 2 safe riding

## SAFE SPEED

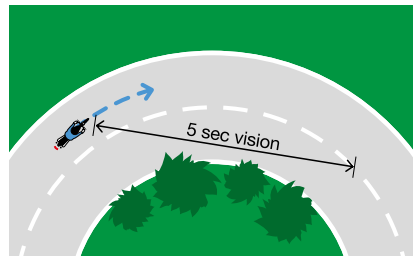
Adjust your speed for the road conditions and your ability to see the road ahead.

Slow down if your vision is reduced by:

- a curve in the road
- a blind corner
- a blocked intersection
- a crest
- poor weather conditions.

To react properly, you need to see at least five seconds ahead. Calculate a **five-second vision** in a curve, for example, use this technique:

1. Pick a fixed point at the side of the oncoming lane as it comes into view, such as a power pole, tree or sign, and start a five-second count ('one thousand and one ... one thousand and five').
2. If your motorcycle reaches the chosen point before you finish counting, you are riding too fast for the vision conditions.
3. Slow down and repeat the count again until you attain the full five-second vision.



Slow down if you cannot see 5 secs ahead.



Riding above the speed limit is both dangerous and unlawful. Riding under the speed limit also can be dangerous if you do not adjust your speed to match the road and traffic conditions.



## Road positioning

Traffic and road situations are constantly changing; therefore your safest position on the road constantly changes accordingly. Low-risk riders actively manage their road position and aim to be in the right place all the time.

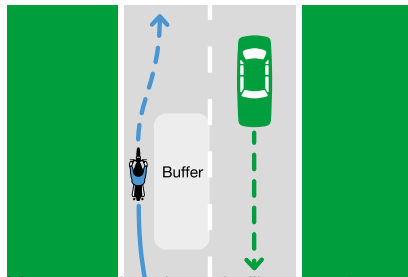


Choose to ride where you can best maintain visibility to other vehicle operators.

## CONSIDER SPACE, SURFACE AND SIGHT

### SPACE

Motorcycle riders have very little to protect them in a crash. The more space you can create around you and the greater your distance from other vehicles and pedestrians the better. This is referred to as 'buffering'. Buffering not only moves you away from potential hazards but also increases the likelihood of you being seen by other road users.

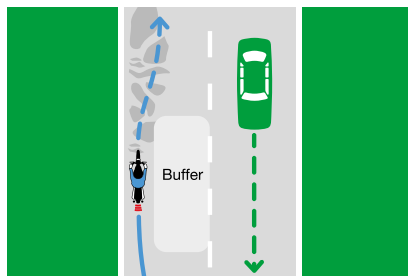


Move away from hazards, like oncoming cars.

### SURFACE

A relatively small change in road position can result in a significant change in the quality of road surface. Variations in road surface can seriously affect a motorcycle's balance and stability, brake effectiveness and the distances needed to slow and stop.

Motorcycle riders need to watch for poor surfaces, including paint, oil, water, sand, gravel, pot holes and metal plates, and be ready to adjust their riding.



If you need to ride on a poor surface in order to maintain a buffer, slow down.

# 2 safe riding

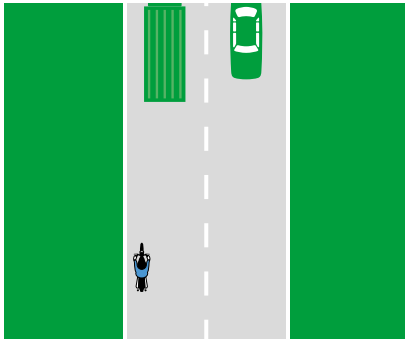
Sometimes it's not possible to avoid riding on a poor surface. For example, you may want to be in the left side of your lane to allow a safe buffer from an oncoming vehicle, but the left side of the road may be bumpy and broken up. If you need to ride on a poor surface to buffer yourself from a hazard, just slow down.

## SIGHT

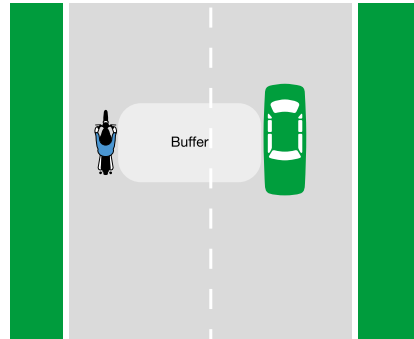
A good road position allows you to see further and get more information about what is happening up ahead. Generally the right side of the lane provides good vision up the road, to the sides and behind you. However, it becomes a dangerous road position when there is oncoming traffic. Choose a road position that provides good vision without compromising your buffer from hazards, particularly when following large vehicles or taking left bends.



If you need to ride on a poor surface in order to maintain a buffer, slow down.



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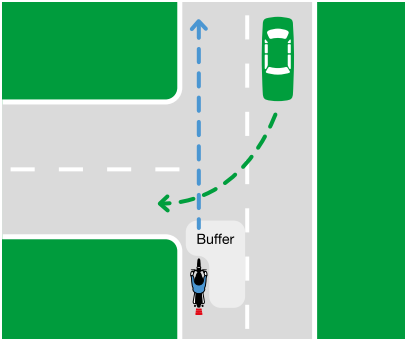


If you need to ride on a poor surface in order to maintain a buffer, slow down.

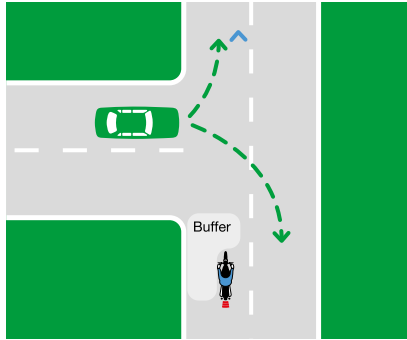


Avoid the oil trail left on roads by other vehicles as it can reduce your traction, particularly in wet weather.

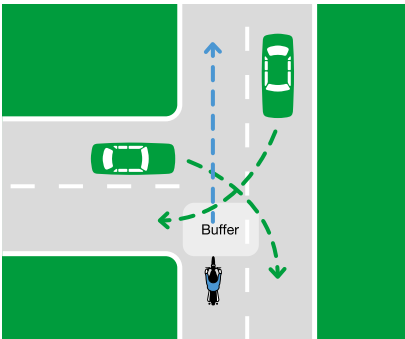
## EXAMPLES OF BUFFERING



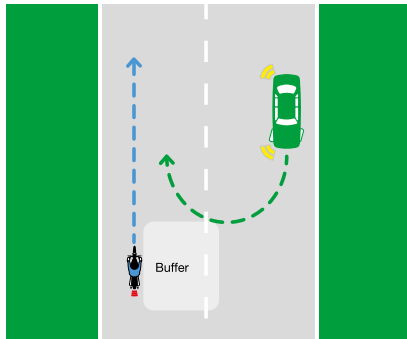
Slow down and buffer when a vehicle could turn across your path.



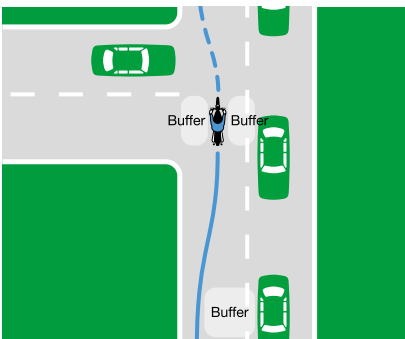
Slow down and buffer when a vehicle could turn across your path or enter the lane you are in.



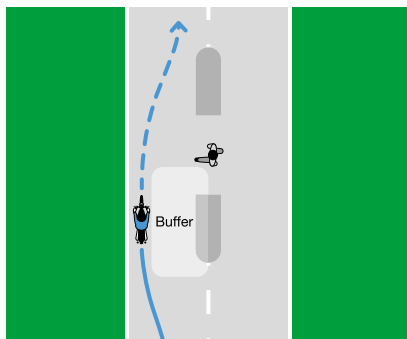
Buffer both vehicles and slow down.



You may need to buffer hazards even when they are on the other side of the road.

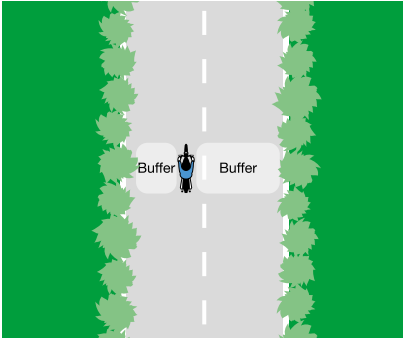


In busy traffic you may be in the left side of the lane for most of the time only moving right to buffer vehicles in side streets.



Buffer all hazards including pedestrians.

# 2 safe riding

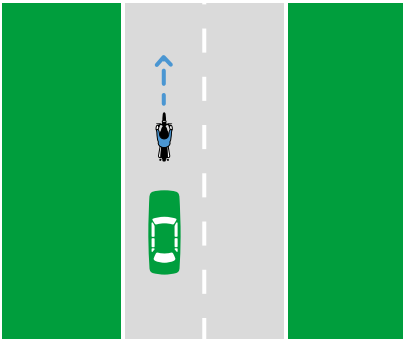


On country roads staying on the right side of your lane can provide space from wildlife and improve vision. however, you must remember to buffer oncoming vehicles and be in the correct position for crests and curves.

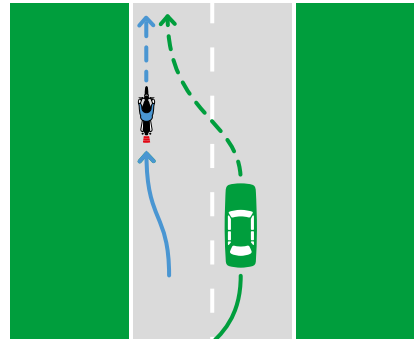


A motorcycle rider can legally use any part of their lane.

## VEHICLES FOLLOWING

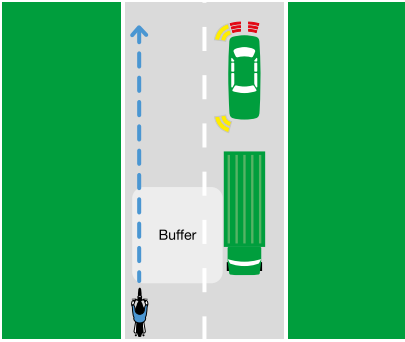


If vehicle is following close behind it is sometimes better to select the middle of the lane.



Maintain a buffer from vehicles as they pass you.

## VISION

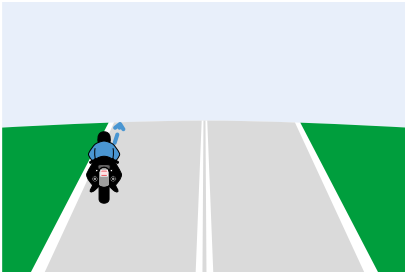


Buffering can improve your vision and make it easier for others to see you.

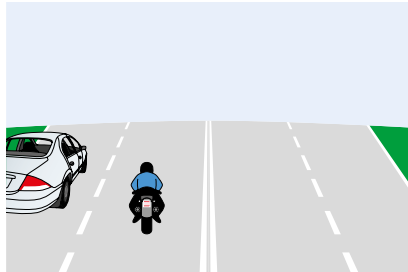


The further back you follow other vehicles the better you can see around them.

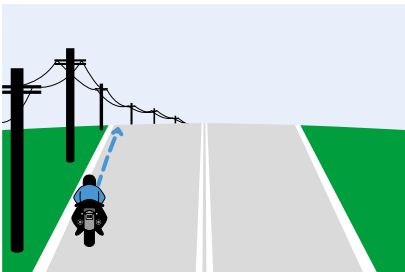
## BLIND CRESTS



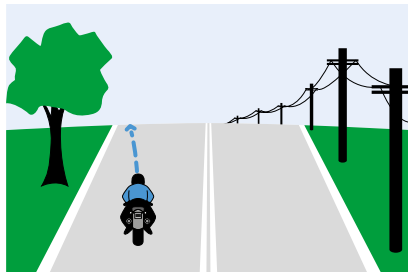
Approaching blind crests create a buffer from possible oncoming traffic.



If there is possibility of multiple hazards, slow down and buffer both sides.



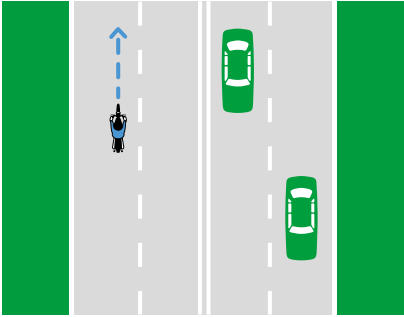
Approaching blind crests look for clues as to where the road goes. Slow down and select a road position to suit.



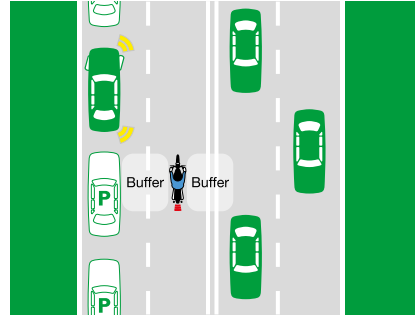
Approaching blind crests look for clues as to where the road goes. Slow down and select a road position to suit.

# 2 safe riding

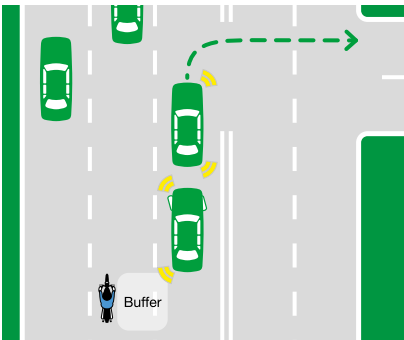
## MULTI-LANED ROADS



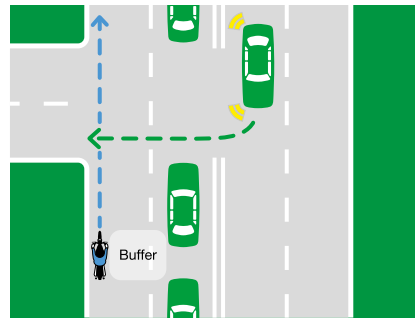
On multi-laned roads, reduce the risk of a head on crash by choosing a lane away from the oncoming traffic.



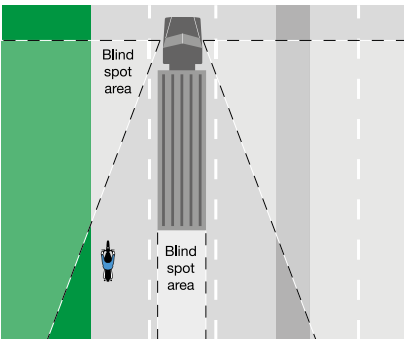
Buffer both parked and oncoming vehicles.



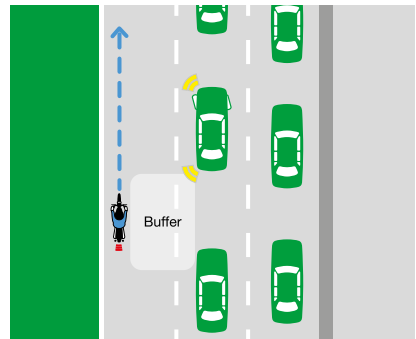
Create a buffer from turning vehicles in case not all the vehicles are turning.



Slow down and buffer slow moving or stopped traffic; they may be blocking the view of a turning vehicle.

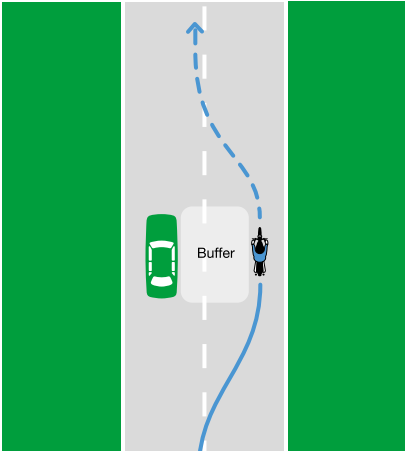


Do not ride beside other vehicles or in their blind spots.

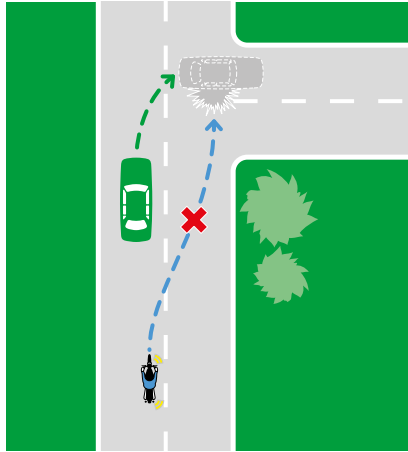


When using BUS or TRANSIT LANES keep a buffer from the other traffic in case they change lanes to make a turn.

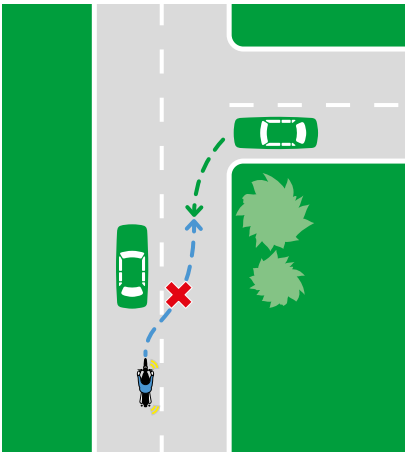
## OVERTAKING



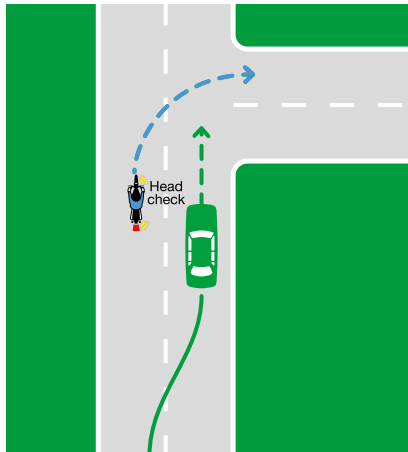
When overtaking create a buffer from the vehicle you are passing.



Before overtaking a slow moving vehicle check for side streets and driveways they may be turning into.



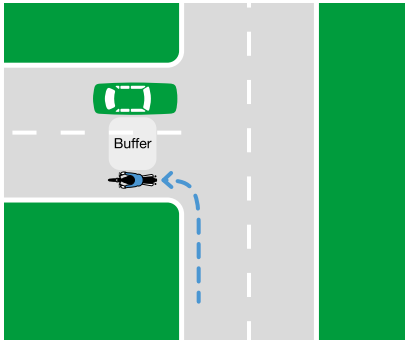
Before overtaking check for side streets and concealed driveways, particularly in country areas.



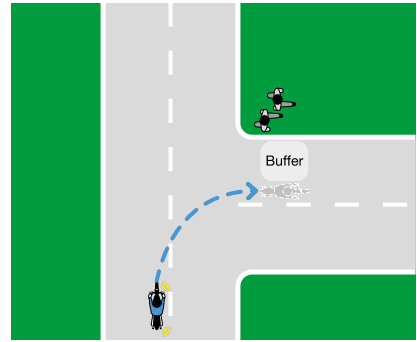
Before turning into a street or driveway, perform a head check for vehicles that may be overtaking you.

# 2 safe riding

## URNS AT INTERSECTIONS



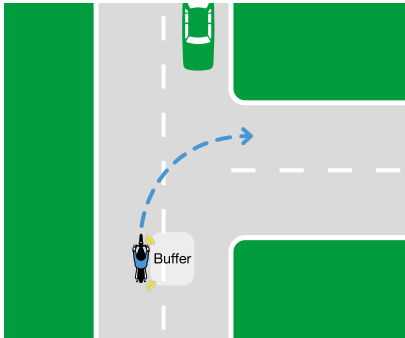
When turning left from a single lane, start the turn as near as practicable to the far left side of the road. Buffer hazards as you exit the turn.



Maintain a buffer from oncoming traffic while you are waiting to turn right.



When turning left or right you must give way to any pedestrians crossing the road into which you are turning.



When turning right from a single lane, start the turn as near as practicable to the far right of the lane or middle of the road, buffering hazards as you exit the turn.



## POSITION YOURSELF TO BE VISIBLE

Motorcyclists often experience near hits or collisions with cars. Usually the car driver apologises and says, “sorry mate I didn’t see you”. Motorcycles are relatively small objects on the road, and it’s not always easy for car drivers to see them. As a result it is important to get into a position on the road that will give other road users the best chance of seeing you and thereby avoiding a crash.

While you may be able to clearly see a car ahead, the driver may not see you, or can only see a small portion of you, due to:

- a lack of attention
- obstacles such as parked cars, stobie poles, signs, wheelie bins or vegetation
- equipment in the car such as GPS devices, mobile phone holders and the pillars between windows.

Think about whether a driver can see you and adjust your road position to maximise your visibility. If you are following or alongside a vehicle, make sure you can be seen by the driver in their rear vision and side mirrors.

You have a better chance of being seen by other road users if you wear brightly-coloured protective clothing and helmet.



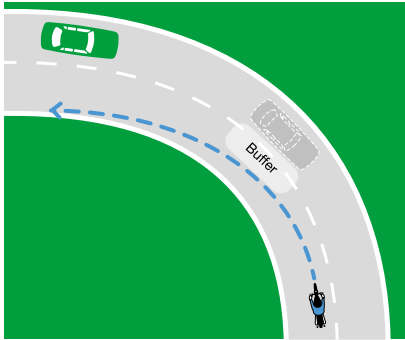
Don't rely on other road users to look out for you, and don't assume they will see you even if you are wearing high visibility clothing.

# 2 safe riding

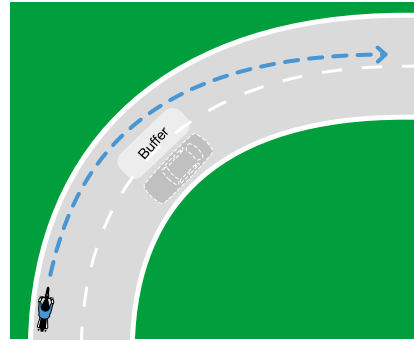
## POSITIONING FOR CURVES AND BENDS

- Plan to start curves and bends wide (for maximum vision).
- Plan to finish them in tight (to get your speed right and leave room for errors).
- Keep away from the head-on zone (where on-coming vehicles are most likely to cross the centre line).

Taking curves and bends this way will slow you down a little on the approach but will allow you to accelerate out much earlier, when you have a clear view.



On blind left curves slow down and begin to move left as vision becomes limited.



On right curves slow down and keep to the left until you see the road is clear of oncoming traffic.

Make sure braking is done prior to negotiating the bend so that the motorcycle is under control, particularly during inclement weather.

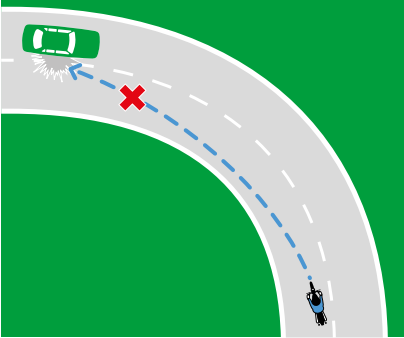
## THE DANGER OF EXITING WIDE

Many riders try to straighten out of turns too quickly, resulting in the motorcycle running too wide on the exit. This is dangerous as it allows no room for error: if the curve tightens up or changes direction, the rider needs to work harder to complete the turn. Furthermore, it greatly increases the risk of a head-on collision on right curves.

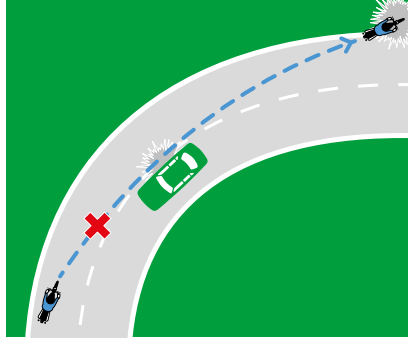
When a rider exits a curve wide there is no room for error.



Many crashes happen because riders run wide on the exit of a turn.



Exiting wide can result in a crash.



Turning in too early can result in a head-on collision or a crash on the exit of the curve.

# 2 safe riding

## PLANNING A SERIES OF CURVES

Link a series of curves together by starting each curve wide and planning to finish it in tight. A tight exit puts you in the right position to enter the next curve.

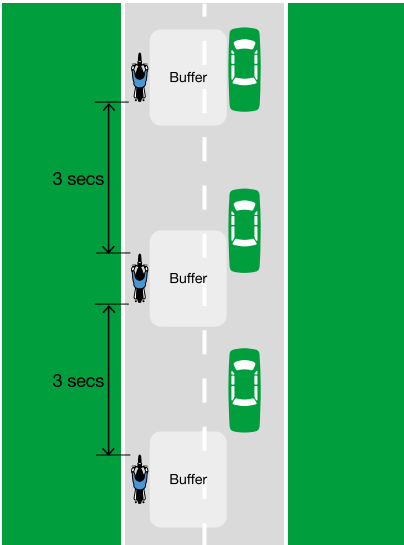


Planning to finish in tight will position you for the next curve.

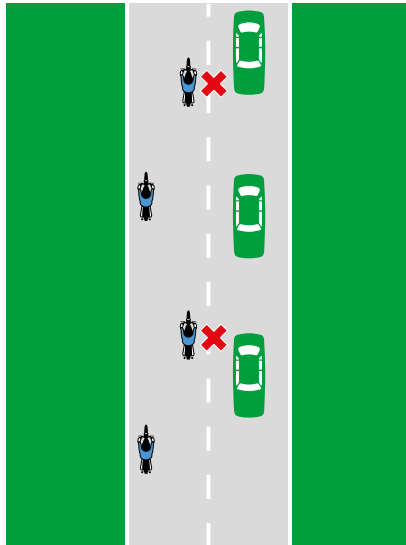


Remember to create a buffer when you see an oncoming vehicle.

## RIDING IN GROUPS



Riding 'single file' allows every rider to buffer hazards and if a 3 second following distance is maintained, vision is less affected.



Riding 'staggered file' can be dangerous. Riders are unable to buffer hazards and vision is reduced by the other motorcycles in the group.

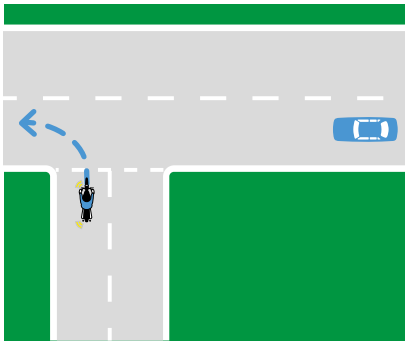
# 2 safe riding

## Gap selection

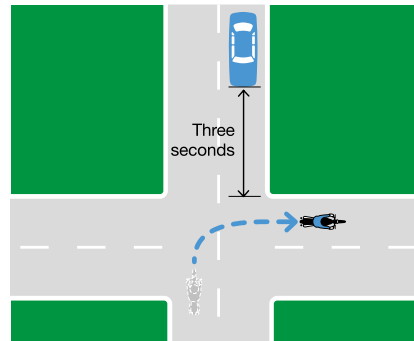
Selecting a safe gap is a critical skill to safe riding.

A safe gap is one that enables you to turn, overtake, change lanes or cross an intersection without affecting the crash avoidance space of other road users, or forcing them to change their speed or position.

- When turning across traffic, select a gap that allows your motorcycle to be clear of the road or intersection by at least three seconds before the approaching vehicle arrives.
- When changing lanes or joining a traffic stream, select a gap that allows you to reach the traffic speed before the approaching vehicles are within three seconds of your motorcycle.
- When overtaking, select a safe gap between your motorcycle and the vehicle you are overtaking AND a safe gap between your motorcycle and the oncoming vehicle.



Choose a gap so other vehicles are not forced to change speed or road positioning.



Be clear of the intersection for 3 seconds before other vehicles arrive.



Before overtaking, do a head check to make sure that someone isn't trying to overtake you at the same time.

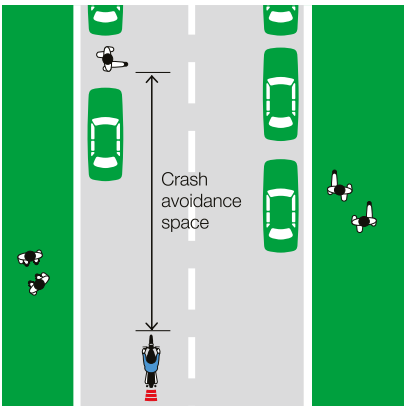
## Hazard perception and response

Good hazard perception and response is essential to safe riding.

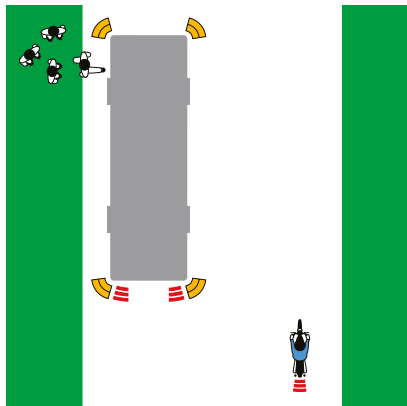
A hazard is anything that could enter your crash avoidance space, such as a vehicle exiting a side street without giving way, or an approaching vehicle that turns without warning across your path.

Low-risk motorcyclists learn to mentally estimate a three-second crash avoidance space in front of their motorcycle and respond to a potential hazard by:

- slowing down (and being prepared to stop by 'setting up' or covering the brakes)
- moving away, buffering or changing lanes.



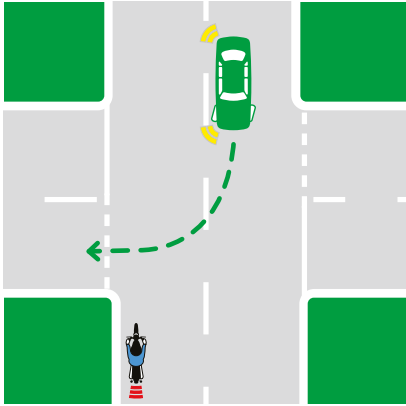
Respond before reaching the hazard.



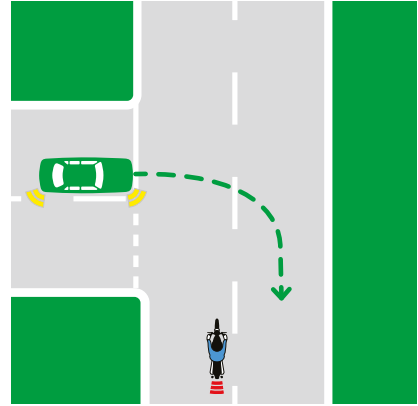
Respond when something can enter your crash avoidance space.

# 2 safe riding

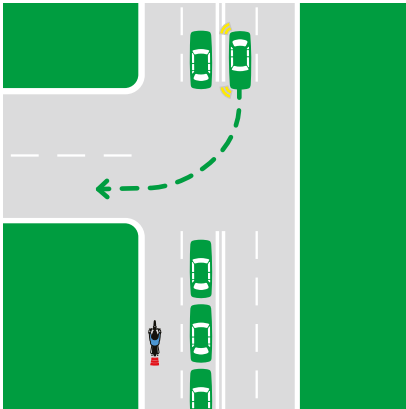
## EXAMPLES OF SITUATIONS THAT REQUIRE A RESPONSE



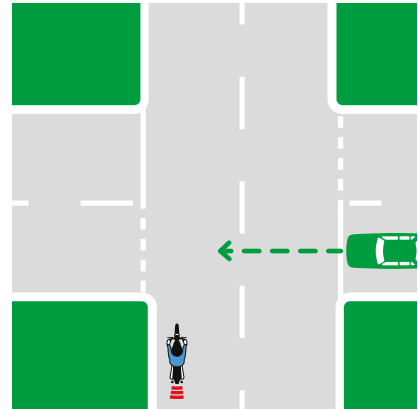
A vehicle waiting to turn in front of your path.



A vehicle waiting to pull out from the left side.



Stopped traffic obscuring vision at an intersection.



A vehicle to pull out from the right side.



## BRAKING TECHNIQUE

Emergency braking is the most important control skill needed to avoid a crash. Braking too hard can destabilise a motorcycle, leading to the front or rear wheel locking and causing the bike to overturn or slide, particularly on wet or gravel roads. Alternatively, not braking hard enough can result in failing to avoid a crash.

Correct braking is done in two stages:

1. Put light pressure on the brake levers and pause (this is called 'setting up the brakes')
2. Progressively apply the necessary braking pressure (this is called 'squeezing the brakes').

Two-stage braking reduces the likelihood of skidding and gives you better control.

If the front wheel begins to skid due to incorrect braking, quickly release the front brake and reapply gently. If the rear wheel skids, release the rear brake gently and reapply gently.

When releasing the brakes, ease them off gently to maintain the stability of the motorcycle. This is particularly important when entering curves.

The key to avoiding a crash is anticipation and motorcycle control skills. Anticipation will develop with time and experience. Invest time in practising the correct braking technique.



Applying the front brake in a curve can make the motorcycle run wide.

## ANTI-LOCK BRAKING SYSTEM (ABS)

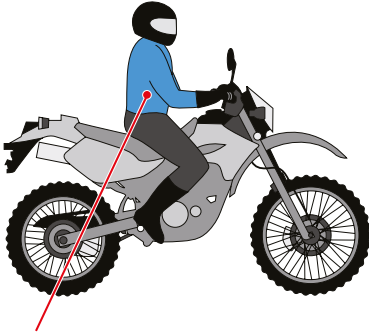
Motorcycles equipped with ABS have important safety benefits and are highly recommended. The ABS prevents a motorcycle's wheels from locking due to hard braking or slippery conditions, by momentarily reducing the brake pressure applied by the rider and allowing the wheels to continue rotating.

Research by the Centre of Automotive Safety Research, University of Adelaide showed that ABS could reduce the overall stopping distance of a motorcycle by up to 17 percent.

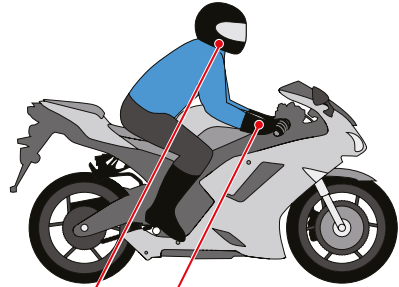
Motorcycle safety technology features such as Anti-lock Braking Systems, Motorcycle Stability Control and Traction Control systems can all help the rider maintain control in potentially high crash risk situations.

# 2 safe riding

## THE FIVE KEY POINTS OF RIDING POSTURE APPLY TO ALL TYPES OF MOTORCYCLES

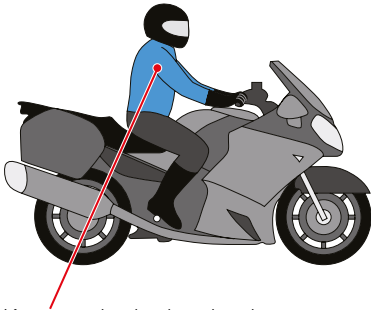


Sit well forward.

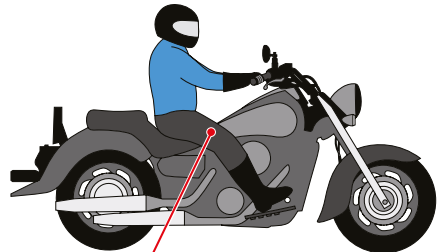


Keep your head up and point your chin in your direction of travel.

Relax your arms and place minimal weight on your wrists.



Keep your back relaxed and support your weight with your stomach muscles.



Grip the motorcycle firmly with your legs and knees.

## STEERING TECHNIQUE

Handle bar pressure, body weight and changes in speed all have an effect on a motorcycle's direction of travel. Good riders use a combination of these inputs to achieve smooth and precise turns.

### HANDLE BAR PRESSURE

A motorcycle can be steered by direct steering or counter steering. With direct steering, the motorcycle goes in the direction to which the handle bars are turned. With counter steering, the motorcycle goes in the opposite direction to which the handle bars are turned; for example, a

slight forward pressure on the left handle bar will make the motorcycle turn left. Direct steering is only used for very low speed turns, U-turns, turns at intersections, etc. Counter steering has more effect as speed increases.

## BODY WEIGHT

A rider's body weight and posture have a significant effect on a turning motorcycle. Leaning with the motorcycle in a curve allows the motorcycle to stay more upright, thereby giving the tyres better grip and the motorcycle greater ground clearance. With low speed turns leaning away from the turn can help balance the motorcycle.



## EFFECT OF SPEED

The faster a motorcycle is travelling the harder it is to turn. Reducing speed before turning is essential. Wait until the motorcycle begins to straighten before accelerating. Accelerating through a turn will stand a motorcycle up and too much acceleration will make the motorcycle run wide.

During very low speed turns such as U-turns, gentle use of the throttle, clutch and rear brake will help you control speed and stay in a tight turning circle.

# 3 motorcycle roadworthiness

A roadworthy motorcycle meets the standards required by law. If you have any questions about the standards that apply to your motorcycle, contact the department's vehicle standards area on 1300 882 248.

## Registration

Your motorcycle must by law be registered.

There are severe penalties for riding an unregistered motorcycle. In addition, compulsory third party insurance is not valid when a motorcycle is unregistered, which means the rider could be held personally liable for financial compensation to any person injured as a result of a crash.

## Number plates

The number plates on the motorcycle you ride or own must be:

- issued by the department
- in alignment with the registration papers
- displayed on the rear of the motorcycle
- clearly visible from a distance of 18 metres
- clearly readable - not dirty, worn or damaged
- mounted so that the bottom edge of the plate is at least 300mm above ground level.

The rear number plate must have a light so that it is clearly visible at night.

It is an offence to:

- obscure any part of your number plate
- alter a number plate in any way
- attach a number plate to any vehicle other than the one to which it is registered
- use a number plate cover that prevents the plate being visible or photographed at any angle.

## Checking your motorcycle

Check your motorcycle's roadworthiness before you ride and at regular intervals.

### CONTROLS

Adjust the controls of the motorcycle so they are right for you. You should be able to reach all the controls easily without being cramped.

### LIGHTS

Make sure that your lights - including headlights, brake lights and flashing turn indicators all work, are clean and can be clearly seen. (Motorcycles manufactured before September 1981 are not required to have indicators.)

Do not ride a motorcycle at night if the lights are not working.

### MIRRORS

Adjust the mirrors so that you have a good view to the rear and sides. Make sure that your mirrors are clean.

All motorcycles made after June 1975 must have a rear vision mirror fitted to each side; all other motorcycles must have a right side mirror. Mirrors must not project more than 150mm beyond the widest part of the motorcycle.

### TYRES

The motorcycle's tyres must be in good condition and have a tread at least 1.5 mm deep. The tyres must not be re-grooved, unless they were manufactured to be re-grooved.

The sidewalls of the tyres should not have any cracks or bumps. If your tyres wear unevenly there may be a problem with the steering or suspension.

Tyre pressures are critical to a motorcycle's handling. Keep the tyres inflated to the pressure recommended by the manufacturer or they may overheat and fail. Under-inflated tyres significantly increase the risk of crashing.

# 4 road rules for motorcycle riders

Motorcycle riders must hold a current motorcycle licence and the motorcycle must have current registration.

Riders must adhere to the same road rules as cars, trucks and other motor vehicles, as described in *The Driver's Handbook*.

In addition, there are several rules that apply specifically to motorcycle riders.

## WHEN RIDING

The motorcycle rider must:

- sit astride the rider's seat facing forward
- wear a correctly fitted and securely fastened approved motorcycle helmet
- keep at least one hand on the handlebars
- keep both feet on the foot pegs designed for rider use.

## HELMETS

Motorcycle and motor trike riders and their passengers (including sidecar passengers) in South Australia must wear an approved motorcycle helmet that meets either the Australian Standard (AS 1698-1988 and AS/NZS 1698:2006) or European (ECE 22.05) standard motorcycle helmet and is in good repair and proper working order and condition. The helmet must be properly fitted and securely fastened and must be marked with an official standards mark certifying compliance with the relevant standard. motorcycle riders must refer to the instructions for their particular make and model of helmet to determine the suitability for attachments.



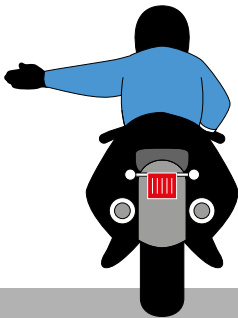
## KEEPING LEFT

Generally, vehicles travelling on a single lane road must drive as near as practicable to the far left side of the road. However, due to the importance of lane positioning for motorcycle rider safety, this rule does not apply to motorcycles. Motorcycle riders can legally travel in any part of the lane.

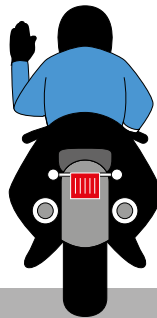
## HAND SIGNALS

Motorcycle riders can use hand signals for stopping, slowing or turning. Hand signals can improve rider safety when bright light conditions make it difficult for the motorcycle's brake and indicator lights to be seen.

- To signal for stopping or slowing, extend either arm horizontally and bent at a right angle with a flat palm.
- To signal for turning, extend a straight arm with flat palm pointing in the direction of the turn.



You are turning left.



You are stopping or slowing down.

# 4 road rules for motorcycle riders

## CARRYING PASSENGERS

Passengers carried on a moving motor trike or motorcycle (not in a sidecar) must:

- sit astride the motorcycle pillion seat facing forward
- keep both feet on the footrests for use by the pillion passenger
- wear a correctly fitted and securely fastened approved motorcycle helmet
- be eight years of age or older.
- not interfere with the rider's control of the motorcycle or distract the rider.

The motorcycle rider must not ride with more than one passenger (excluding sidecar passengers) on the motorcycle.

Learner riders must not carry a passenger either as a pillion or in a sidecar. This includes a person acting as a Qualified Supervising Driver.

Passengers carried in a sidecar must:

- wear a correctly fitted and securely fastened approved motorcycle helmet
- remain seated.

The motorcycle rider must not ride with more passengers than the sidecar is designed and approved to carry.

Children under eight are allowed to travel in a sidecar.



## **CARRYING LOADS**

Motorcycles and motor trikes are not designed to carry large loads. Consult your motorcycle manual to find out the total weight your vehicle is designed to carry, including rider and pillion.

Use a combination of panniers or saddlebags, tank bags and seat bags to balance the weight of your load. Keep the load:

- **Low** – Ideally with the use of panniers or on the seat. If a load is too high it may unbalance your motorcycle. Avoid carrying heavy or unwieldy loads on your back.
- **Forward** – Place your load above or in front of the rear axle as anything behind the rear axle can potentially have a serious effect on motorcycle handling.
- **Balanced** – Fill panniers evenly or strap heavier loads onto the seat.
- **Secure** – Pack the load as above or strap it carefully to the motorcycle. A loose load or strap could catch in the rear wheel or chain and cause a crash. Extreme care should be taken when using straps equipped with hooks as they are a major cause of eye loss.

The width of your loaded motorcycle must not exceed one metre maximum. Nothing in the load should project out from the motorcycle in a way that is likely to injure pedestrians, or to obstruct or damage another vehicle (or anything else, including the road surface).

## **TOWING AND BEING TOWED**

When a motorcycle is being towed by another vehicle using a towline (chain, rope, fabric, strap or wire), the distance between the two vehicles must not exceed 2.5 metres.

When the towline is longer than 2 metres, you must attach a white or brightly coloured flag, piece of cloth or other similar material to the line as a warning.

Learner riders must not tow a trailer.

## MOTORCYCLE PARKING

Parking rules and restrictions apply to all vehicles including motorcycles. However, a motorcycle may park at an angle.

A motorcycle is generally more stable when parked facing up a slope.

It is recommended that a motorcycle is parked with the rear tyre facing into the curb. This will position the front of the machine facing up the slope (or camber) of the road for added stability and allow the rider to mount the machine and search the road for approaching vehicles and hazards before entering the traffic flow.



## OTHER ROAD RULES

Motorcycle riders are allowed:

- to not wear a helmet when pushing a motorcycle if the engine is not operating and it is safe to do so (for example, to allow filling up at petrol stations)
- to stand up on the footrest or footrests if it is safe to do so
- to remove a foot from a footrest (not both feet at the same time) if it is safe to do so.

## LANE FILTERING

Lane filtering is permitted in South Australia.

Motorcycle lane filtering is only allowed when safe to do so by experienced motorcycle licence holders. L or P1 riders, or moped riders who only hold a car licence are not allowed to lane filter.

Lane filtering is not allowed at speeds greater than 30km/h, in school zones, in special purpose lanes (such as bike lanes and bus lanes) or next to the kerb or parked vehicles. Motorcyclists must comply with all road rules and heavy penalties apply for unlawful lane filtering.



For more information about the road rules and related penalties in South Australia, refer to The Driver's Handbook or visit the MyLicence website [www.myllicence.sa.gov.au](http://www.myllicence.sa.gov.au).

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