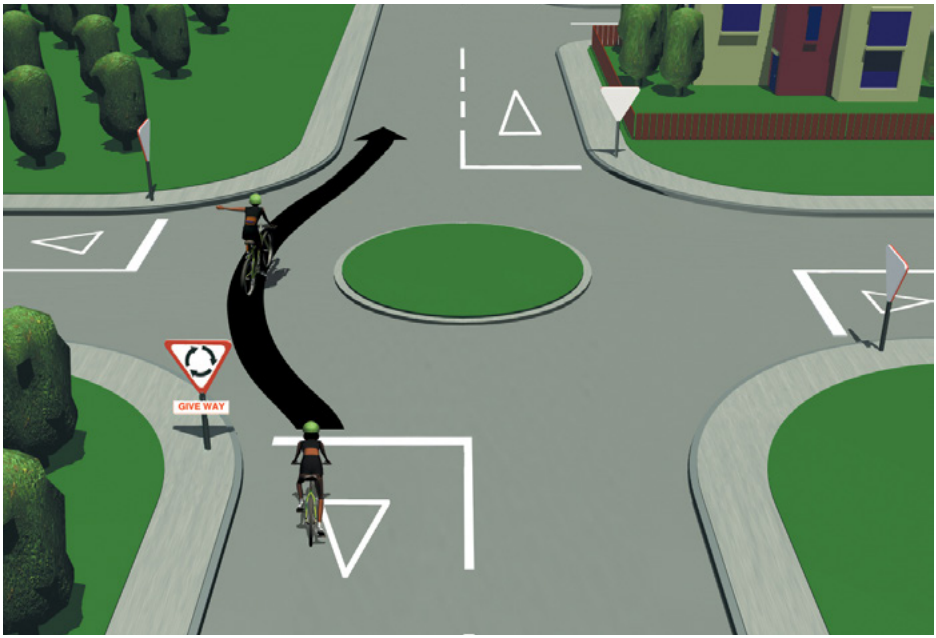
NZ TRANSPORT AGENCY
WAKA KOTAHI

The official New Zealand code for cyclists



The official New Zealand code for cyclists
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The NZ Transport Agency has endeavoured to ensure the material in this document is technically accurate and reflects legal requirements. However, the document does not override governing legislation. The Transport Agency does not accept liability for any consequences arising from the use of this document. If the user of this document is unsure whether the material is correct, they should make direct reference to the relevant legislation and contact the Transport Agency.

The official New Zealand code for cyclists

This document explains cycle related rules using plain English. For the precise wording of laws you should refer to the various acts, regulations and rules which are in effect. These include:

- Land Transport Act 1998
- Land Transport Rule (Road User) Rule 2004
- Land Transport Rule: Traffic Control Devices 2004
- Land Transport Rule: Vehicle Standards Compliance 2002
- Land Transport Rule: Tyres and Wheels 2001
- Land Transport Rule: Vehicle Dimension and Mass 2002
- Land Transport Rule: Vehicle Lighting 2004
- Land Transport Rule: Vehicle Equipment 2004

To view acts, regulations and rules go to: www.legislation.govt.nz or www.nzta.govt.nz/about-us/about-the-nz-transport-agency/our-organisation/our-legal-framework/.

The law refers to 'cycles' which includes bicycles (bikes) and tricycles. In this document the word 'cycle' has been used broadly to refer to both bicycles and tricycles. The words 'bicycle' (and occasionally 'bike') or 'tricycle' have also been used to refer to specific types of cycles.

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Contents

Introduction

Cycling is a great way to get around and a sport enjoyed by more than a million New Zealanders.

If only three in 100 people took up cycling instead of driving, New Zealand would save more than $1 billion per year! Cycling is the pollution solution that improves your health, increases your productivity at school or work, and enhances the safety of your community.

Every time you ride, you have an opportunity to contribute to a cycle friendly culture. It is important to ride with courtesy and respect for all other cyclists and motorists. Make sure you are visible at all times and clearly show your intentions. Thank other road users when you can. For example, let them know you are happy they waited for you by waving, smiling, or giving them a 'thumbs up'. This will make sharing the road easier for everyone.

Practise your skills, take care of your bike, follow this code and enjoy a lifetime of cycling through beautiful New Zealand.

Document layout

There are three sections in this guide:

- The cycling section.
- The signs section.
- The equipment section.

Other available information for cyclists

There is a wealth of information available for cyclists. For information on:

- advocacy and research – see www.can.org.nz
- cycling news and events – see www.bikenz.org.nz
- NZ government cycling resources and initiatives – see www.nzta.govt.nz and www.bikewise.co.nz
- local cycling – see your local and regional council web pages.

ABOUT CYCLING

This section covers:

- Learning to ride.
- Rules.
- Cyclist responsibilities.
- Cycling in different situations.
- Cycling through intersections.
- What to do if there is a crash.

LEARNING TO RIDE

Basic skills[1]

The basic skills to learn first are:

- how to hold the handlebars
- stopping and braking
- getting on and off the bicycle without help
- beginning to pedal
- balance
- cycling in a straight line
- steering the bicycle.

These skills should be learned in a smooth flat area where there is no traffic.

1 This topic has been based on information contained within *Cyclecraft – the complete guide to safe and enjoyable cycling for adults and children*, written by John Franklin. For more information, the reader should refer to this book. It can be purchased online or ordered through bookstores.

HOW TO HOLD THE HANDLEBARS

Straight handlebars

Straight handlebars normally only have one or two positions where you can put your hands. Grip the handlebars firmly, but not too tightly and place your fingers over the brakes, so that you are ready to apply them if you need to.

Holding straight handlebars

Dropped handlebars

There are four ways to hold drop handlebars. Practice them all and make sure you can move between the positions easily.

This is the normal position to use in traffic. From this position you can reach the brake levers easily and by sitting up you can see everything happening around you.

This position can be used when there are no hazards. From this position it is easy to slip your hands to the brakes when needed.

This position reduces wind resistance and is useful when you want to ride fast or are cycling against a strong headwind.

This position can relieve pressure on the hands, but it is generally not recommended because you don't have quick access to the brake levers. The position should only be used by experienced cyclists on quiet roads when there are no hazards.

STOPPING AND BRAKING

Most bicycles have two brakes, one at the front and the other at the back. The recommended way to stop is to apply both brakes firmly but not too quickly.

Each of the brakes has a different effect so you should practice braking so you get to know how the brakes work on your bicycle.

Practise the following exercises running with the bicycle next to you.

Right (front) brake

1. Stand to the left of the bicycle and hold the handlebars with both hands over the brake levers.
2. Angle your bicycle slightly in towards you (this will stop the pedal of the bicycle hitting your leg).
3. Run forward with the bicycle for a few metres.
4. Apply the right (front) brake.

The bicycle should stop very quickly, but the rear wheel may jump off the ground.

Brake control practice exercise

Left (rear) brake

1. Repeat steps 1–3 above.
2. Apply the left (rear) brake.

The bicycle should stop more slowly with both wheels on the ground.

Both brakes

1. Repeat steps 1–3 above.
2. Apply both brakes.

The bicycle should stop quickly with both wheels on the ground.

Controlling the stop

1. Repeat the above exercise a few times but vary how quickly and firmly you pull the brake levers.

Work out how much to squeeze the brakes to make the bicycle stop quickly, but without skidding.

If you apply the brakes too firmly you may go over the handlebars.

GETTING ON AND OFF THE BICYCLE WITHOUT HELP

Getting on

1. To get on the bicycle, stand to the left of the bicycle.
2. Hold the handlebars with both hands and pull the brake levers.

Getting on the bicycle

3. If your bicycle has a low top tube – step your right leg over the tube. If your bicycle has a high top tube – swing your right leg over the seat. Leaning your bike towards you makes it easier to get on.
4. Continue to hold the handlebars and brakes, keep your left foot on the ground and put your right foot on the pedal.
5. Move the right pedal backwards with your foot (counter-clockwise) until it is slightly forward of its highest position (the 2 o'clock position).
6. Keeping your left foot on the ground and the right foot on the pedal, sit on the seat. You will find it easier to keep stable in this position if your bicycle is leaning a little to the left. This position also means that if you get onto the bike by the roadside you will be leaning away from traffic.

Foot position

Start off position

Getting off

1. Pull the brake levers and keep them on until you are off the bicycle.
2. When the bicycle is stationary, put your left foot on the ground (you may have to lean to the left to do this) then slide forward off the seat.
3. Swing your right leg over the bicycle seat or step over the bicycle.

Beginning to pedal

Before getting on the bicycle you should make sure it is in a low gear (if it has gears). You can do this by lifting the back wheel off the ground and manually turning the pedals as you move the gear levers.

Once you are on the bicycle and sitting in the seat, you should check your right foot is slightly forward of its highest position.

To start pedalling you will need to release the brakes (but keep your fingers over the brakes), then push down on the pedal with your right foot.

Balance

Practice balance in a large, clear, flat area.

- A helper should hold the back of the bicycle for you, either by the seat post or by a carrier, if one is fitted, or
- The helper can also hold the cyclist around the waist.

This will allow you to control the handlebars and brakes but will help stop the bicycle and prevent falls.

As you gain competence, the helper should loosen the hold on the bicycle and then gradually move their hand away altogether. The following tips may help.

- A couple of strong pushes on the pedals to start with will get the bicycle going and will help make balancing easier.
- Fix your eyes on a distant point (try not to look down).
- Don't worry about steering a straight line initially.
- If you start to tilt to the left, steer left slightly – if tilting to the right, steer right.
- Try to keep your body relaxed.

Cycling in a straight line

Cycling in a straight line is helped by pedalling smoothly. To practice cycling in a straight line you should try to follow a marked straight line on the ground. Good cyclists will wobble less than 2.5 centimetres.

Steering the bicycle

It is important to be able to steer the bicycle very accurately, as you will need to avoid stones and potholes. Practice by marking two lines on the ground with chalk and cycling between the lines repeatedly, making sure that neither your front or rear wheel touches the lines. The lines should be no wider than 15 centimetres apart.

Learning to steer the bike exercise

CYCLIST SKILLS TRAINING

Learning to ride a bicycle takes lots of practice so you should consider taking a course. Courses vary and cover a range of skills depending on who they are designed for. If you are interested in taking a course, contact your local council, bike club or bike shop to find a local training provider.

The NZ Transport Agency, Bike NZ and CAN have recently developed national guidelines for cyclist skills training.

The training is separated into three grades of learning.

- Grade 1 – Beginner: Skills for full cycle control in non-traffic environments.
- Grade 2 – Intermediate: Skills to cycle in a variety of traffic environments.
- Grade 3 – Advanced: Skills to cycle confidently in all traffic environments.

Grade 1 – Beginner

If you are a beginner cyclist, learn to cycle in a safe place off the road. Beginners need to learn about their bicycle and how to control it. You should learn to:

- do a bicycle check
- do a helmet check
- understand the legal requirements and safety equipment for bicycles
- get on and off the bicycle without help
- start off and pedal without help
- stop quickly and with control
- steer the bicycle and manoeuvre safely to avoid objects
- look behind
- signal (stop, left, right)
- use the gears.

Grade 2 – Intermediate

Grade 2 cyclists need to learn skills to ride safely in a variety of traffic situations. Practice needs to take place on quiet roads. You should learn to:

- do all of the grade 1 skills
- understand road signs and the road rules
- start from the side of the road (kerb)
- stop on the side of the road (kerb)
- ride along the road
- pass a parked or slower moving vehicle
- travel straight through controlled and uncontrolled intersections
- turn left – at controlled and uncontrolled intersections
- turn right – at controlled and uncontrolled intersections
- use cycle lanes (optional)
- use shared paths (optional)
- ride through single lane roundabouts (optional)
- ride through traffic signals (optional).

Grade 3 – Advanced

Grade 3 cyclists need to learn to ride safely in all traffic situations. Practice in a variety of traffic situations. You should learn to:

- do all of the grade 1 and 2 skills
- use multi-laned roundabouts
- use intersections with traffic signals
- turn in and out of multi-laned roads
- overtake to the start of the queue
- recognise hazards and be an assertive, but also safe and confident cyclist
- share the road with other users
- ride in high-speed traffic environments (rural)

- do hook turns (optional)
- ride in groups (optional).

If you are interested in more information on the Transport Agency cyclist skills training programme see: www.nzta.govt.nz/safety/walking-and-cycling/cycling/.

More advanced and specialised cycling skills

As you get more proficient you may want to start cycling more and explore the wider range of cycling opportunities on offer. Whether you're interested in cycling for transport, recreation or sport, on or off road, there is a wealth of information and experience available to help you. Ensuring you are better prepared through learning more advanced or specific skills, having a bike and equipment matched to the type of cycling and learning from the experience of other cyclists, will help ensure an enjoyable experience. For further information on cycling, helpful advice, events, finding a local club or cycle shop, go to www.bikenz.org.nz and www.can.org.nz.

RULES

Before cycling on the road you must know the road rules. They apply to cyclists as well as those using motor vehicles. The rules help to prevent crashes and reduce risk of injury.

Equipment rules

- Cycle helmets must: be worn; meet an approved standard and be securely fastened (see pages 70–73).
- Cycles must have brakes and reflectors (see page 74).
- Cycle lights must be on when it's dim or dark (see page 74).
- Doubling is not allowed unless there is a special seat called a pillion fitted and there are footrests for the passenger. The legs of small children must be protected from the wheels. Passengers must wear cycle helmets.
- Cycles can tow a specially designed cycle trailer but must not be fitted with a sidecar.

Behaviour rules

- Always ride as near as you can to the left side of the road. If you are holding back traffic you must move as far as possible to the left side of the road to allow traffic to pass, as soon as you can. However, you do need to cycle in a sensible position on the road to keep safe. See page 21 for more information.
- Two cyclists can ride next to each other but should take into account the keep left rule and not hold back traffic. Three or more people cycling next to each other is illegal, except in the case of a road race that has been given traffic management approval from a road controlling authority.
- Ride in single file when passing vehicles.
- Use hand signals to show other road users what you are doing (see page 23).
- When cycling behind other cyclists and vehicles you must be able to stop, keeping clear of the vehicle in front, if it stops suddenly. It is recommended you keep at least two seconds behind (see page 25).
- You are only allowed to cycle on the footpath if you are:
  - delivering newspapers or mail, or
  - you are riding a small wheeled recreational device that has a wheel diameter of less than 355 millimetres (typically tricycles or small children's bicycles).
- Don't park your cycle so that it blocks paths or driveways.
- It is illegal for a cyclist to be towed on their cycle.
- Loads need to be secure, must not touch the ground and mustn't extend more than one metre out in front of or behind the wheels, or more than half metre on either side.
- You must obey all signs and signals.
- You must obey the give way rules (see page 43) and give way at pedestrian crossings.
- You must obey local bylaws (these often cover cycles and parks).
- Give way to emergency vehicles when their sirens are on or when lights are flashing. It is a good idea to pull over to the kerb and stop.

CYCLIST RESPONSIBILITIES

Your responsibilities as a cyclist are to:

- use the correct lane
- keep left
- pass other vehicles safely
- use hand signals
- be safe and courteous when cycling in groups
- share the road and paths
- expect hazards and ride to avoid them.

Use the correct lane

Before reaching an intersection, or when turning, you need to get into the correct lane. Inexperienced cyclists may choose to stop and get off in a safe place before reaching busy intersections and walk their cycle to where they want to go.

Keep left

Road rules state that road users should keep as 'near as practicable' to the left side of the roadway. This means that you should keep left, but not to the extent that it compromises your safety.

- Ride in a position where you have a good view, and where other road users can see you. Cycling in a straight line (ie not swerving in and out) will help other road users predict your movements.
- Never ride so closely to the kerb or edge of the road that you are in danger of cycling into the kerb or off the road.

Taking the lane

There are some situations where you may want to move more toward the centre of lane in order to keep yourself safe. This is called 'taking the lane'. If you do have to move further out, remember to find a gap, signal your intentions, do a quick shoulder check and move across when it is safe.

After taking the lane you should move back towards the left side of the road as soon as it is safe to do. Please ride with courtesy and respect for all other road users making sure you are visible at all times and clearly showing your intentions. This will make sharing the road easier for everyone.

Some situations where it is important to take the lane are:

- **On approaching a roundabout**: You need to take the lane as if you were a car so you are in the best position to be clearly seen by all users on or approaching the roundabout. This will also help prevent drivers from passing you, or crossing your path. Once out of the roundabout move back to the left side of the road when it is safe to do so. In a situation such as this, you may see a sharrow marking (see page 62 for an example) on the road.
- **Turning right at an intersection**: You will need to take the lane as if you were a car when turning right at an intersection so that so you are in the best position to be clearly seen by all users on or approaching the intersection. Once across the intersection move back to the left side of the road when it is safe to do so.

Some situations where it is acceptable to take the lane are:

- **When the road is narrow**: If the road is too narrow to safely allow vehicles to pass, you are in danger of being run off the road or hit by a passing car. Once you have taken the lane try to ride as quickly and safely as you can and allow the following traffic to pass when the road widens. In a situation such as this, you may see a sharrow marking (see page 62 for an example) on the road.

- **When cars are parked on the left side of the road**: Never ride in the 'door zone' when cycling passed parked cars. Allow at least one metre between you and a parked car. The 'door zone' is the space into which doors can open unexpectedly in front of you. Once you have passed the parked cars and it is safe to do so, move left to allow the following traffic to pass. In a situation such as this, you may see a sharrow marking (see page 62 for an example) on the road.

- **Turning left at an intersection**: In some cases, on a left-hand turn you may need to 'take the lane' to avoid cars parked on the left-hand side, or to avoid being cut off on the corner by a vehicle also turning left.

The 'car door zone

Pass other vehicles safely

When passing moving or stationary vehicles, always check behind and signal your intentions. Always pass on the right unless lanes allow passing on the left, or when other vehicles are turning right. Hang back if you see a truck turning left, because cyclists are often not seen by truck drivers.

When riding past queues of stationary or slow moving vehicles, your visibility will be reduced and turning cars may not see you. Slow down and be particularly careful when there is a gap in the queue – the driver leaving the gap may have left it for a turning vehicle.

USE HAND SIGNALS

Hand signals must be used at least three seconds before:

- moving into traffic
- stopping
- turning left
- turning right
- moving from a lane.

Turning left

Slowing down or stopping

Turning right, passing or pulling out

Roundabouts

You must use hand signals before reaching a roundabout and at the roundabout. Once you are in the roundabout you may need both hands on the handlebars to keep control of the cycle, so it is okay to only indicate when you are able. For more information on indicating at roundabouts see page 53.

There are also other situations where it will be difficult to use hand signals because you may need both hands on the handlebars, eg on very rough roads or in strong winds. In these cases, consider whether you should stop and get off in a safe place and walk your cycle to where you want to go.

HAND SIGNAL PROCEDURE

1. Well before you need to signal, check behind to see when a good time to move or stop would be (keep both your hands on the handlebars).

2. Do the hand signal while slowly counting 'one-thousand and one; one-thousand and two; one-thousand and three'. Then return your hand to the handlebars.
3. Check that other road users have seen you and understand your hand signal. Then carefully make your move, or stop. If you are able to make eye contact with other road users, this will help to ensure that they have seen you.

Be safe and courteous when cycling in groups

GENERAL CONSIDERATIONS FOR GROUP CYCLING

Group cycling can be a very enjoyable experience provided you know how to ride in groups. The 'rules' that should be followed are listed below:

- Each cyclist should know the route and where the next stopping/meeting place is (meeting places should not be too close to intersections).
- There must never be more than two cyclists cycling next to one another. When the road is narrow or vehicles cannot pass, everyone should cycle in single file.

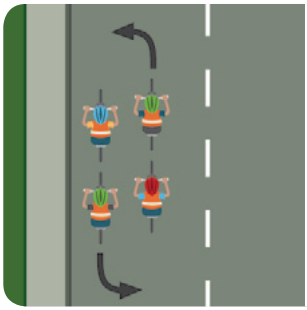
THE TWO SECOND RULE

Under normal conditions, the two-second rule is an easy way to make sure you have allowed enough following distance between your cycle and the vehicle in front, no matter what speed you're travelling at.

To check if you are travelling two seconds behind the vehicle in front:

- watch the vehicle in front of you pass a road marking or other feature on or off the road
- as it passes the marking, start counting 'one thousand and one, one thousand and two'
- if you pass the marking before you finish saying those eight words, you are following too closely – slow down, pick another marking and repeat the words to make sure you have increased your following distance.

- Pass other moving cyclists and motor vehicles on the right, if they are in the same lane as you.
- Everyone should communicate. Let others know that you are passing, stopping, slowing down or turning. Hazards need to be pointed out to cyclists behind. If a motor vehicle driver is having difficulties passing the group, the cyclists at the back should let the cyclists at the front know.



Sudden braking or swerving are common causes of crashes in bunches. Group rides work best when riders communicate hazards and rotate smoothly.

- When following a vehicle, you must have enough clear space to stop, should the vehicle in front stop suddenly. The exception is where cyclists are participating in council-approved cycle events that allow cyclists to closely follow one another (typically referred to as 'drafting' or 'paceline cycling'). When riding closely, any sudden movements by any cyclist in the paceline can result in serious crashes. A good way to tell if you are leaving a safe distance between you and the cyclist in front is to use the two second rule, described in the box on page 25.
- Everyone should ride smoothly with no sudden stops, starts or turns. If something unexpected happens, you should try your best to continue cycling smoothly and at the same time let the rest of the group know that a stop is needed.
- Advanced cyclists entering events may wish to practice their drafting skills. This skill takes time to master and should only be learnt with other experienced riders present. Your local cycling club or shop may offer courses or provide group rides with other experienced riders.

ADULTS CYCLING WITH CHILDREN

When cycling with young children, adults should either lead or be at the back of the group, depending on the children's experience and the number of adults. If there is just one adult to supervise a group of young inexperienced riders, riding at the back of the group is best. Where there are two adults, one should lead and the other can observe and protect the group from behind.

Adults should make sure the group doesn't get too spread out and should ensure that when turning at intersections the whole group can make the move safely. Depending on the ability of the children, adults may decide that the group needs to stop in a safe place, get off and walk their cycles across difficult intersections.

Using roads and paths

Wherever you ride, you are sharing space with other road users. Understanding and respecting the needs of other users ensures everyone is safe and comfortable while they are on the road or on paths.

SHARING WITH MOTOR VEHICLES

Be alert and ride safely.

- Use cycle lanes and cycle paths if they are available.
- Keep to the left side of the road when practicable (see keep left and taking the road on page 21 for more information).
- Ride in a straight line. If you have to swerve to avoid something, try to do a quick shoulder check and not to veer too far off line.
- Obey road rules, signs and signals.
- Only ride next to another cyclist if it safe to do so, otherwise ride in single file. It is illegal for three or more cyclists to ride next to one another.
- Always ride so that you can control your cycle and are able to stop suddenly if you have to.
- Try to be as visible as possible. Use lights when it's dim or dark and consider wearing reflective clothing.

- Be aware that drivers of other vehicles may not be able to see you if you are in their 'blind spot.' Cyclists know if they are in a blind spot if they can't see the driver's eyes in the vehicle's rear view mirrors.
- If an ambulance, fire engine or police car has its siren on, you should move off the road or as far to the left as possible. Watch for motor vehicles that are also trying to move out of the way.
- Thank other road users when you can. For example, let them know you are happy they waited for you by waving, smiling, or giving them a 'thumbs up'.
- Respect other road users and be courteous. When it's appropriate, wait for them, give them space or wave them through.

Wearing bright clothing makes you more visible

- Be ready for the unexpected – ride defensively. The most common mistakes people driving cars, trucks or buses, make are:
  - not giving way
  - passing you and then turning left straight in front of you
  - coming from the opposite direction and turning right in front of you
  - driving too close to you when they are overtaking
  - opening their doors wide enough to hit you when you are cycling past
  - not checking properly before coming out of driveways or parking places

- cutting corners
- driving too fast for the conditions
- trying to be nice by letting you turn at times when it's not necessarily safe for you to make the turn. If this happens don't make a move until you can see that the way is clear in all the lanes you need to cross. Wave them on if you want to.

- Stay alert – look out for buses and trucks and recognise that they may not be able to see you and may stop often. Be sure to wait for the right moment to pass.
- Don't weave through traffic as this makes it harder for trucks and buses to see you.
- Never cycle up the left side of a truck or bus turning left as these vehicles often have large blind spots where drivers cannot see you.
- Take up a visible position at lights – three metres out in front and not by the left kerb or very close to trucks or buses.
- Remember that when turning, the trailer of a long vehicle will track inside the path of the cab.

Emergency stop for a car pulling out

HELPFUL HINTS FOR CYCLING DEFENSIVELY IN TRAFFIC

- Where possible, communicate with drivers. Make eye contact and signal intentions clearly.
- Look for the presence of people inside a parked car – a door may open or the car may move off.
- When a vehicle is stationary, look for brake lights or exhaust fumes – this is a sign that the car has started and may be about to leave.
- Look for indicator lights on vehicles – but be careful not to rely on them – wait to see if the car's speed reduces or it changes direction.
- At side roads and intersections, look at the angle of other vehicles' front wheels – this may give you an idea about what direction they might be about to head in.
- Before checking behind you, check that the forward path is clear.
- Listen for changes to the pitch of a vehicle's engine. Learn to recognise the sounds of accelerating, braking, and changing gear.
- Look for shadows on the road, reflections in shop windows and vehicle lights at night to give clues about hazards.
- When riding past queues of vehicles, your visibility will be reduced and turning cars may not see you. Slow down and be particularly careful when there is a gap in the queue – the driver leaving the gap may have left it for a turning vehicle.
- In the rain or other low light conditions:
  - wear reflective clothing and use your lights
  - ride slowly and keep the bicycle upright especially on corners
  - brake slowly and smoothly using both brakes
  - avoid surface water, drains and rough surfaces.

Based on information from *Cyclecraft – the complete guide to safe and enjoyable cycling for adults and children*, written by John Franklin.

What drivers would like cyclists to know

- Drivers expect cyclists to obey the road rules and to be courteous, ie using hand signals and not cycling through red traffic signals.
- Because cars travel fast it can be difficult to stop them quickly and safely – so responding to hazards on the road is normally harder for the driver of a motor vehicle than for a cyclist.
- Unpredictable cycling behaviour can be unsettling – try not to swerve or change direction suddenly.
- Drivers can feel delayed by cyclists.

SHARING WITH PEDESTRIANS

- Where there are a lot of pedestrians, slow down and be prepared to stop quickly.
- Be careful when cycling past parked vehicles or stopped buses, as pedestrians may suddenly appear.
- Slow down and be ready to stop for any pedestrians on, or stepping onto, a crossing. See page 36 for more information on legal stopping requirements at different types of pedestrian crossings.
- If you want to use a pedestrian crossing to cross the road you must get off your cycle and walk. The exception is at crossings with special traffic signals for cyclists – here you may cycle across the crossing when the signal shows a green cycle symbol. See page 38 for more information on these types of crossings.
- Shared paths (paths that allow pedestrians and cyclists) have their own set of rules – for more information on these, see page 31.

What pedestrians would like cyclists to know

- If you are on a footpath with your cycle you should be walking with it, unless you are delivering mail or are cycling a wheeled recreation device that has a wheel diameter less than 355 millimetres (normally a tricycle or small child's bicycle).

Children may be hard to spot behind vehicles and may behave unexpectedly

- Pedestrians often can't hear cyclists approaching, especially from behind or to the side. Call out politely or use a bell if you have one.
- Children, especially those under the age of nine, may have poor road skills. Be very careful when cycling near them.
- Until children reach 15 years their vision is not fully developed. This limits their ability to see easily to their sides and can mean they may not see you until you are in their direct line of vision.
- Children have trouble judging the speed of moving cyclists, so they may try to cross the road even if they do see you.
- Some people may have disabilities that prevent them from reacting or moving quickly.

SHARED PATHS

It is normally illegal to ride on footpaths, unless delivering mail or when cycling a wheeled recreational device that has a wheel diameter less than 355 millimetres (normally a tricycle or small child's bicycle), but some councils have created shared paths that both cyclists and pedestrians can use.

Sometimes the shared path is sign posted to let you know what type of user has priority, and in this case, you need to give way to the user who has priority. When a shared path does not have priority signs, you should give way to the slower user. However, if you encounter a horse on a

shared path it is sensible to give way to the horse, as they are easily startled.

All users on shared paths are required by law to use shared paths fairly and safely, and to try and not hold anyone up.

If you are riding on a shared path you should:

- keep left
- let pedestrians know you are there by politely calling out or ringing a bell when you are approaching from behind them
- pass on the right, when possible – unless the pedestrians are on the right in which case pass them in the safest way you see fit
- ride defensively and cycle at a speed that does not put others at risk. E-bikes should be in the lowest power setting
- cruise by other users with a metre's gap, so as not to startle them
- look out for traffic going in and out of driveways – vehicles from driveways do need to give way to those on the shared path, but often drivers may not expect fast traffic on the shared path
- be careful at intersections and give way to motor vehicles if you need to.

Expect hazards and ride to avoid them

Being a safe cyclist means being aware of hazards and being prepared for them. In this section we have listed hazards you may encounter while cycling. Read these lists and think about:

- where and when you might encounter these hazards
- what might happen
- what you would do if any one of these hazards occurred suddenly
- how you might avoid the hazards.

Plan your trip with the hazards you might encounter in mind. When cycling, continuously check for hazards.

Consider taking a cyclist skills course. Research has shown that after training, cyclists have five times fewer injuries than non-trained cyclists.

ROAD SURFACE HAZARDS

- Debris – gravel, rocks, leaves etc.
- Things that have been thrown or dropped on the road.
- Glass.
- Oil leaks from cars.
- Drains without covers, or covers with grills parallel to your direction of travel.
- Deep gutters.
- Roads with a steep side slope.
- Railway lines.
- Potholes and uneven road surfaces particularly on the side of the road.
- Gaps or steep ridges between the tarseal and the gutter.
- Sudden patches of gravelled road.
- Metal plates in wet weather.
- Shiny tarseal in wet weather.
- Paint markings in wet weather.

Roadworks, uneven surfaces and metal plates can all be hazardous in certain situations

- Paint markings, reflectors and rumble strips that have very thick sides.
- Some road features, such as built-out sections of footpath that narrow the road and assist pedestrians crossing.

ANIMAL HAZARDS

- Animals sometimes run out onto the road.
- Some dogs chase cyclists. In this situation, it may be appropriate to stop and place your cycle between yourself and the dog.

The unpredictable movement of animals

OTHER ROAD USERS' HAZARDS

- Pedestrians can step onto the road without looking.
- People in parked vehicles may open their doors suddenly in front of cyclists.
- Sometimes drivers may not look for, or expect, a cyclist and in some cases they may not see you even when they do look because you are in their 'blind spot'. You can tell if you are in a vehicle's blind spot if you cannot see the driver's face in the vehicle's rear-view mirrors.
- Vehicles often reverse out of driveways quickly.

Motor vehicle reversing from driveway

- Vehicles often pull out in front of cyclists. Pay careful attention to buses around bus stops.
- Large vehicles turning can be a hazard. They are bigger, so they need more room to turn.
- Large vehicles passing at high speed can create wind which can make it difficult to control your bicycle.

WEATHER HAZARDS

- Gusts of wind.
- Sun glare – when the sun is bright and low on the horizon, drivers may not be able to see you. If the sun is low in the sky, either in the morning or the evening, drivers driving towards the sun may not be able to see you because of glare.
- Rain, ice, or snow, make roads wet and slippery and make it hard to see and be seen.

CYCLISTS' OWN BEHAVIOUR

Cyclists must not:

- text or talk on a mobile phone while cycling (see page 77).

Cyclists also need to avoid:

- drinking alcohol or using illegal substances before or while cycling
- cycling too fast for the conditions
- using portable music players (it helps to be able to hear traffic when cycling).

Texting while cycling is illegal

CYCLING IN DIFFERENT SITUATIONS

Using cycle lanes and cycling in bus lanes

Where there are cycle lanes, you should use them. However, at times you may need to move further out into the road (if the lane is too close to the sides of parked cars or because of rubbish, or uneven road surfaces). You should also leave the cycle lane well before an intersection to join a different lane to turn right or left.

You may use a bus lane, as long as there isn't a 'buses only' sign. You should be considerate of buses – the size of a bus means bus drivers often can't see cyclists.

Vehicles turning left may need to cross bus or cycle lanes. The law states that they must give way to all vehicles using the lanes. But you still need to be careful if a vehicle is turning left just ahead of you as the driver may not see you, or may wrongly guess your speed.

Using different types of pedestrian crossings

Marked pedestrian (zebra) crossings with no raised traffic islands

Stop and give way to pedestrians on any part of the crossing, or who are obviously waiting to cross it.

Marked pedestrian (zebra) crossings with raised traffic islands

Stop and give way to pedestrians on your half of the road.

School patrol crossing on a marked pedestrian (zebra) crossing

Stop when a sign is being held out and wait until both signs are withdrawn.

Kea crossing – a temporary school patrol crossing outside a school that is not on a marked pedestrian (zebra) crossing

Stop when the sign is being held out and wait until both signs are withdrawn.

Courtesy crossings – usually made of bricks or paving and are often raised above the level of the road

These are not official pedestrian crossings, but be polite and stop for pedestrians waiting to cross on them.

Kea crossing

Courtesy crossing

Shared crossing

Using shared pedestrian and cycle crossings

Normally cyclists using pedestrian crossings need to get off their cycles and walk across. However, some special crossings are designed for both pedestrians and cyclists. These crossings have a set of red, yellow and green signals that display bicycle symbols in addition to the normal pedestrian signals. You are allowed to cycle across when the bicycle symbol is green, which may or may not be when pedestrians cross. Pedestrians must only cross when the pedestrian symbol is green.

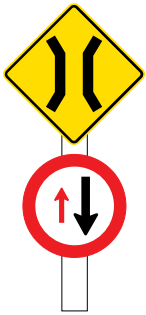
Crossing railway lines

When you are approaching railway crossings you should slow down and be ready to stop. If the crossing has bells, lights or barrier arms then you will need to wait until the bells and lights have stopped and the barrier has lifted out of the way. Some railway crossings don't have bells, lights or barriers, so look as far as you can up and down the railway line to check whether trains are coming.

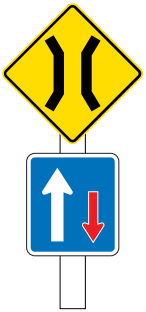
To avoid your cycle's wheels getting stuck in railway lines or slipping in wet conditions, try to cross the lines at a right angle (or as close as possible to a right angle).

Using one-lane bridges

Some bridges are one way only. The following signs tell you what you should do.



Give way to all vehicles coming towards you



Vehicles travelling towards you should give way unless they are already on the bridge

CYCLING THROUGH INTERSECTIONS

General information for using intersections

CYCLING STRAIGHT THROUGH AT AN INTERSECTION

Approach

1. If there is a cycle lane use it.
2. If there is a lane that vehicles use for travelling straight through, look behind and when it's safe, signal intentions and move into the lane for traffic travelling straight ahead. If there is a continuous stream of fast flowing traffic that makes this unsafe, it will be safest to ride just to the left of this lane.

At the intersection

3. Obey all signs, signals or markings and use the give way rules (see page 43).
4. Cycle in a straight line, maintain your speed, but be ready to stop if you need to.

After the intersection

5. When you are through the intersection, check behind and return to the left.

TURNING LEFT AT AN INTERSECTION

Approach

1. Keep left throughout the manoeuvre.
2. Signal left for at least three seconds before you reach the intersection. Return your hand to the handlebar before turning.
3. On some left turns, you may want to 'take the lane' by moving into the centre of the lane, as you would if you were a car, to avoid being cut off by a vehicle on the corner. Be sure to check behind and signal your intentions.

At the intersection

4. Slow down at the intersection and look right and ahead. If necessary, stop.
5. Obey all signs, signals and markings and use the give way rules.
6. If there is nothing coming, turn when clear, keeping to the left.

TURNING RIGHT AT AN INTERSECTION

Approach

1. Start looking behind well before the intersection to find a gap.
2. Signal right for at least three seconds before you move to the right. Return your right hand to the handlebar. Do a quick check behind.
3. When there is space for you to do it safely, signal your intentions and move towards the centre line or into the right turning lane.

At the intersection

4. Slow down at the intersection. Look right, left, right and ahead. If necessary, stop.
5. Obey all signs, signals or markings and use the give way rules.
6. If there is nothing coming, turn when clear. Do not cut the corner.

After the intersection

7. Move to the left after turning.

IMPORTANT

Turning right at some intersections can be difficult. It is okay to find a safe place to stop prior to the intersection, get off your cycle and walk across the intersection. If there are pedestrian crossings walk your cycle across them. The other alternative is to do a hook turn.

Doing hook turns

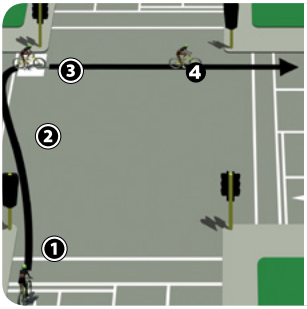
A hook turn is a different way for cyclists to turn right at an intersection. This means that you can stay on the left side of the road at all times and mean that you don't need to move across traffic to turn right.

Hook turns can be done at any intersection, except at intersections that have signs banning hook turns. At some intersections there may be special marked areas to stop in at the half way turning point. It should be noted that hook turns can be done at intersections with or without the marked stopping area.

This sign may be placed ahead of an intersection where a hook turn is recommended.

HOW TO DO A HOOK TURN

1. Keep in the cycle lane, the left lane or the left most lane that goes straight ahead.
2. Cycle across the intersection when the way is clear or the traffic signal, for going straight ahead, turns green.
3. Stop in the marked area of road just before the footpath. If there is not a marked place, stop ahead of the lane for the direction you wish to travel in. When choosing a place to stop be mindful of:
   - crossing pedestrians
   - traffic behind you that is travelling straight ahead
   - traffic that will want to turn left from the second arm of the intersection.
4. Wait until the way is clear, or the traffic signals on the other side of the road turn green and then cycle across the intersection keeping left.



Hook turn

Intersections not controlled by signs and signals

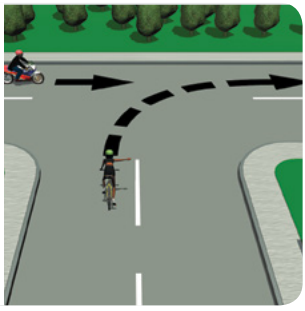
At intersections where vehicles are not controlled by give way signs, stop signs, roundabouts or traffic signals to tell you who has to give way, road users need to use the 'give way rules'.

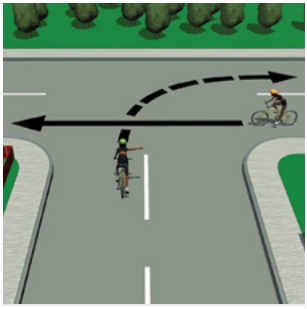
TWO VEHICLES COMING TOWARDS EACH OTHER AND TURNING RIGHT

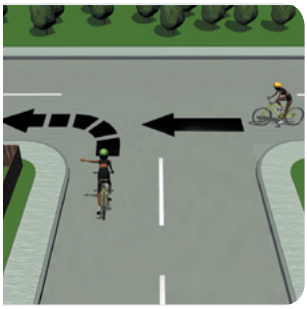
When two vehicles are coming towards each other and both are turning right, no one should have to give way. This is because normally neither will cross the other's path, so both vehicles can turn safely. However, be careful if the other vehicle is a large truck or bus as they may need more room to make the turn.

TURNING WHEN OTHERS ARE NOT

You are turning, so you must give way to vehicles not turning.

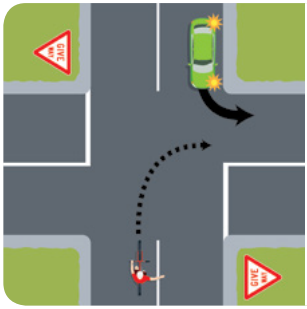






TURNING RIGHT

If you are turning right, you must give way to vehicles coming towards you, including those that are turning left.



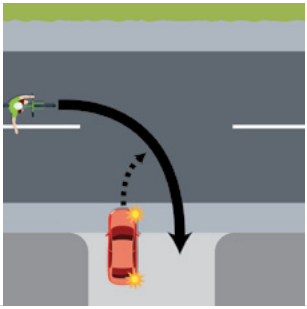
WHAT ARE THE GIVE WAY RULES

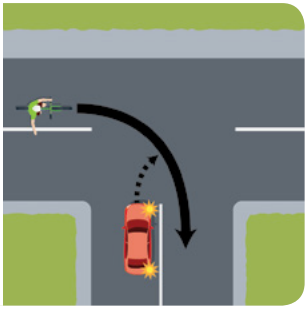
- Road users should obey all road signs and traffic signals.
- If you are turning, give way to all vehicles not turning. Note: If you are leaving the path of a marked centre line, you are deemed to be turning and must give way to vehicles that are following the centre line.
- If you are turning right, give way to vehicles coming towards you that are turning left (applies where both vehicles are facing no signs or signals or where both vehicles are facing the same signs or signals).

  At a T-intersection, all traffic from a terminating road (bottom of the T) has to give way to all traffic on a continuing road (top of the T).
- In all other situations, give way to all vehicles coming from your right, eg at crossroads controlled by traffic signals, when the signals have failed and all approaches have a flashing yellow light.

TURNING RIGHT AT A T-INTERSECTION

At a T-intersection, all traffic on a terminating road (bottom of the T) must give way to all traffic on the continuing road (top of the T). This also applies if the bottom of the T is a driveway.





A driveway

LEAVING THE PATH OF THE CENTRE LINE AT AN INTERSECTION

If you are leaving the path of a marked centre line at an intersection, you must give way to vehicles following the centre line. This is because vehicles leaving the path of the centre line are legally turning (even though sometimes they might actually be going in a straight line) and the give way rules apply.

HELPFUL HINT

If you are turning, give way to all vehicles not turning.

Intersections with stop and give way signs

At a stop sign you must come to a complete stop in a position where vehicles coming from all directions can be seen. Look for vehicles approaching from all directions and move ahead only when the way is clear. If another vehicle is also stopped at a stop sign, then use the give way rules. Don't forget, at a cross intersection, check straight ahead as well as right and left.

At a give way sign, slow down and be ready to stop. Give way to all other vehicles except those that have stopped at a stop sign. If you and another vehicle are coming towards each other and you are both at give way signs, use the give way rules. You must not go until it is safe for you and all other traffic.

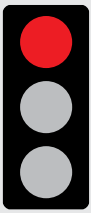
IMPORTANT

The same give way laws apply to cyclists and motorists. But cyclists still need to take care, in case other people don't stop or slow down. Try to get an idea of what other people are going to do. Have a good look around and try to make eye contact with the road users that should be giving way to you, so you can check that they have seen you.

TRAFFIC SIGNAL CONTROLLED INTERSECTIONS

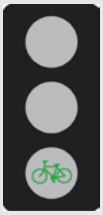
The following rules apply at an intersection controlled by traffic signals (also known as traffic lights):

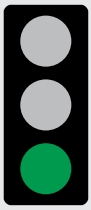
- A red signal means stop.



- A yellow signal means stop, unless you are so close to the intersection that you can't stop safely. A yellow signal indicates that the lights will soon turn red.

- A green signal means you can go, provided it's safe and:
  - if you are turning right, you give way to vehicles coming towards you that are going straight through or turning left
  - you give way to pedestrians crossing the road. This includes riders of mobility devices and wheeled recreational devices.



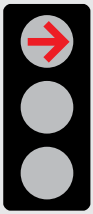


- A flashing yellow signal means the traffic signals are not working. In this case you must apply the give way rules including giving way to traffic approaching from your right if you are both turning or both going straight through.

ARROW TRAFFIC SIGNALS

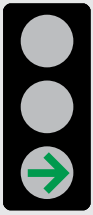
When arrows are displayed on traffic signals, they apply to vehicles going in the direction the arrow is pointing. For example:

- A red arrow means you must stop if you are travelling in the direction the arrow is pointing.



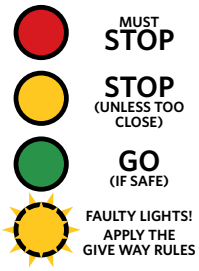
- A yellow arrow means you must stop if you are travelling in the direction the arrow is pointing, unless you are so close to the intersection that you can't stop safely.

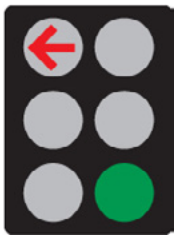
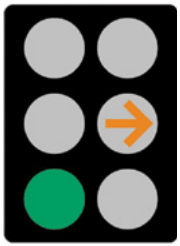
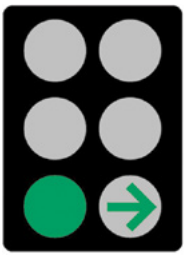
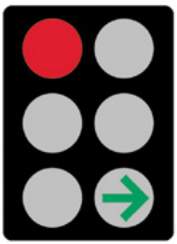
- A green arrow means you can go if you are travelling in the direction the arrow is pointing, provided it is safe.



READING THE TRAFFIC SIGNALS

The following examples will help you to get to know what traffic signals and arrows mean.



	LEFT TURNING	STRAIGHT AHEAD	RIGHT TURNING
	Must STOP	GO (if safe)	GO, but must give way to oncoming traffic, including left-turning traffic, and pedestrians
	GO, but must give way to pedestrians crossing the road	GO (if safe)	Must STOP (if safe)
	GO, but must give way to pedestrians crossing the road	GO (if safe)	GO – oncoming traffic should stop
	Must STOP	Must STOP	GO – oncoming traffic should stop

GIVING WAY WHEN THERE ARE FLASHING LIGHTS

Red flashing lights can be found in various places including near railway crossings, fire stations and ambulance stations. When you see red flashing lights you must stop and stay stopped until they stop flashing.

Yellow flashing lights are found at roadworks. You can continue cycling, but you must be careful.

Using intersections with traffic signals

The key thing when approaching traffic signals is to check you are in the correct lane, and be ready to stop, give way or go.

If there is a queue of traffic waiting at the intersection, you will need to decide whether you stay where you are in the queue or whether it is possible to get to the front of the queue safely. Drivers in queues will have their view restricted by other vehicles, so you will need to be very wary of passing motor vehicles as they may change lanes unexpectedly.

USING ADVANCED STOPPING PLACES AT INTERSECTIONS WITH TRAFFIC SIGNALS

Some intersections with traffic signals have places where you can stop your cycle ahead of the other traffic waiting at the intersection. Use these places because they will help make you more visible to other traffic. However, if there is no traffic waiting behind you at the traffic signals, you may not get a green signal. The following section gives more information about vehicle detectors at traffic signals.

Cyclist waiting at an advanced stopping place

A driver approaching an intersection must not enter a cycle lane if the driver's intended passage or exit is blocked by stationary traffic so that the driver will obstruct the cycle lane.

USING VEHICLE DETECTORS AT TRAFFIC SIGNALS

All intersections with traffic signals have vehicle detectors set in the road surface just before the intersection's white stop lines. When a vehicle is on top of the detector, a 'message' is sent to the traffic signal controller to 'tell it' you are waiting. Sometimes cycles aren't detected because they are smaller than other vehicles on the road. Here are a few ways to improve your chances of being detected:

Position your cycle over the vehicle detectors at traffic signals

- If there is traffic around, try to time your arrival at the signals with a larger vehicle that will trigger the detectors for you, or wait for the arrival of a larger vehicle.
- If there is no traffic around, look for the tell tale signs of the detector's location (tar filled saw cuts near the stop lines) and stop your cycle directly over any one of the tar cuts running in the same direction as you are riding.

Tar filled saw cuts – the tell tale signs of detectors

- If you have been waiting for a while, no larger vehicles have arrived and you can't see the vehicle detector, re-position your cycle so that you can press the pedestrian crossing button. You may be able to do this from the road, in which case you will be able to cross by cycling (you will need to give way to any pedestrians). Where you need to cross the road from the footpath, you will need to get off and walk.

Note: When you know your cycling routes better, you will get to know where the vehicle detectors are and whether they work for you.

Using cycle detectors

Cycle lanes or roads that have a lot of cyclists may have a special detector at intersections with traffic signals or crossing points. This detector is designed to be sensitive enough to pick up the presence of cyclists. The location of the detector is marked on the road surface either with three or more diamonds in a line or an arrow and is positioned where cyclists would normally stop. You should stop your cycle directly over the markings when waiting for green signals at crossing points.

Diamonds in a line indicate cycle detectors

Roundabouts are another type of controlled intersection. Roundabouts can be difficult for cyclists, especially when there is a lot of traffic.

CYCLING STRAIGHT THROUGH AT A ROUNDABOUT

- When cycling straight through a roundabout intersection get into the correct lane. If you need to change lanes before the roundabout you must indicate for at least three seconds – do a quick check and signal your intentions before making your move.
- When you are at the roundabout you need to give way to vehicles already on the roundabout or entering the roundabout from a road to your right. When clear, move into the roundabout.
- Ride around the roundabout in the middle of the lane, not around the inner or outer edge.
- When you pass the exit before the one you want to leave from, check behind you and if you can indicate safely, indicate left.

IMPORTANT

At roundabouts, look out for vehicles that:

- may have to change lanes to exit
- may not be able to stay in their lane because they are:
  - large (for example, buses)
  - travelling too fast.

TURNING LEFT AT A ROUNDABOUT

- When turning left at a roundabout, you may need to 'take the lane' – move to the centre of the lane as you would in a car to avoid being cut off by a vehicle on the corner. Be sure to check behind and signal your intentions.
- When approaching the roundabout indicate to show that you are turning left.
- When you are at the roundabout you should continue indicating left and give way to vehicles already on the roundabout or entering the roundabout from a road to your right.
- When clear move into the roundabout, and continue indicating left if you are able.
- Maintain a position to the left of the left hand lane.

TURNING RIGHT AT A ROUNDABOUT

- When turning right at a roundabout get into the correct lane. In most cases you will need to move into the right hand lane. Before making your move, indicate for at least three seconds and do a quick shoulder check.
- When you are at the roundabout you need to indicate that you are turning right and give way to vehicles already on the roundabout or entering the roundabout from a road to your right. When clear move into the roundabout.
- When you are on the roundabout, try to continue indicating right if you are able, or indicate occasionally while you ride around the roundabout – this will let drivers waiting to enter the roundabout know your intentions. Ride in the middle of the lane, not around the inner or outer edge.
- When you pass the exit before the one you want to leave from, check behind you and if you can indicate safely, indicate left.

MULTI-LANED ROUNDABOUTS

Be careful to get in the correct lane to start with. Be assertive, and if practical, signal intentions clearly. Multi-laned roundabouts are difficult, so in some situations it may be easier to take a route that will avoid the roundabout altogether.

Cycling in a rural environment

- Cycling in a rural environment can involve sharing the road with very fast traffic, often where there is very little road shoulder.
- Cycle with no more than two abreast. Ride single file on corners, hills and roads with less than 200 metres visibility.
- Be aware of potential hazards – approaching vehicles, pedestrians, animals, potholes, intersections, one lane bridges and loose gravel can all be hazardous.
- Follow the road rules, use hand signals and keep to the left. If you are holding up a flow of traffic, pull over to let them pass.
- Wear an approved helmet and consider high visibility clothing.
- Check your equipment – use appropriate cycle lights and check your brakes, tyres, chain and reflectors before you ride.

WHAT TO DO IF THERE IS A CRASH

If a crash causes injury, a police officer must be given details within 24 hours. The details you need to record are the motor vehicle registration plate numbers, as well as the names and addresses of all the people involved. It may also be helpful to collect the name and addresses of any witnesses to the crash.

In the event of a hit and run where you have no vehicle details, or a non-injury crash, it is still important to contact your local council and police to report the incident.

Children who are involved in crashes should let their teacher or parents know as soon as possible.

ABOUT SIGNS

Road signs tell you where you are and what to do. They are needed to help keep everyone safe. This section is an introduction to signs.

Signs can be divided into three types:

1. Compulsory signs
2. Warning signs:
   - permanent
   - temporary
3. Information signs

Their shape and colour tell you a lot.

COMPULSORY SIGNS

Compulsory signs are usually red or blue. They tell you what you must or must not do.

You must stop completely, give way to any traffic, and only move off again when your way is clear

You must slow down and give way, (or stop, if necessary)

You must slow down and be prepared to stop for traffic in the roundabout or entering the roundabout from the right

You are not allowed to cycle here

You must not turn left

You must not go into this road

If there is an arrow sign for the lane you are cycling in, you must move in the direction shown on the arrow

This is a shared path for pedestrians and cyclists

School patrol: you must stop and remain stopped until the sign is withdrawn

Path with pedestrians only on the left side and cyclists on the right

Cycle lane

Cyclists must exit

Bus lane that can also be used by cycles and motorcycles

Bus lane that can only be used by buses

WARNING SIGNS

Warning signs are usually diamond in shape. They warn you to be careful for your own safety, the safety of other road users or of road workers.

Permanent

Permanent warning signs are yellow. Sometimes the fluorescent signs are a yellow/green colour.

Look out for children

Pedestrian crossing

Road narrows ahead

Slippery surface

Railway tracks ahead

Cyclists take care going over railway tracks

Roundabout ahead

Wind gusts

Motorist look out for cyclists

Temporary

Temporary warning signs are orange and black.

Roadworks ahead

Stop on request

Detour for cyclists on the left

Slips

INFORMATION SIGNS

Information signs are all rectangular, but come in a range of different colours and sizes.

You may turn left, but first give way to pedestrians and vehicles

Shows directions to places at the next intersection

Shows the way to the nearest information centre

Cyclists use ramp

Cyclists use left shoulder

Cyclists cross here with care

Cycle parking

Route and destination for cyclists

A hook turn is recommended at the intersection ahead

MARKINGS

A sharrow indicates places where cyclists may move toward the centre of the lane

ABOUT EQUIPMENT

This section covers:

- Things to consider when buying a bicycle.*
- Adjusting the bicycle.*
- Cycle helmets.
- Cycle equipment, clothing and gear.
- Checking and maintenance.
- Storage.
- Security.

Please note that sections marked with a star (*) are written for people purchasing bicycles. The sections may have some information that is relevant to tricycles.

THINGS TO CONSIDER WHEN BUYING A BICYCLE

The cyclist

For many people buying a bicycle will be as simple as choosing one that will suit:

- their height
- the type of cycling they will do
- their skills and experience.

However, if caregivers are choosing a bicycle for a child, the following things also need to be considered:

- Where will the cycle be ridden – at home, in an off-road area, or on the road?

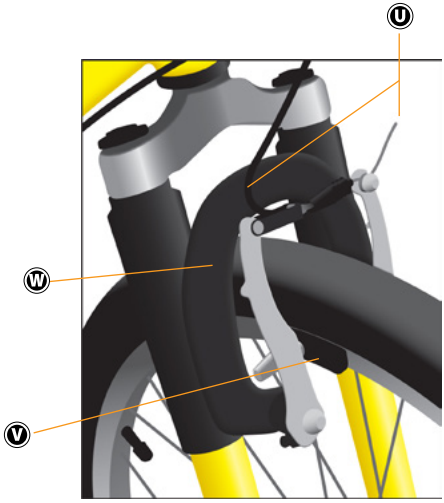
If on the road:

- Will the caregiver have enough time to teach the child the important skills and knowledge needed for road cycling?
- Is the child old enough to understand and apply traffic laws? From age 11 onward, children may be able to start riding in traffic unsupervised. This will depend on the level of instruction they have received, their skills, confidence and ability to apply the road rules.
- Is the child mature enough to be on the road and share the road with other users?

The bicycle

The information we have provided in this section aims to give you the basics about different types of bicycles. We recommend you talk to your local cycling shop for more detailed information.

BICYCLE COMPONENTS



Ⓐ Grip
Ⓑ Headset
Ⓒ Gear dial/lever/switches
Ⓓ Handlebars
Ⓔ Brake lever
Ⓕ Gear cable
Ⓖ Wheel quick release lever
Ⓗ Tyre
Ⓘ Spokes
Ⓙ Wheel rim
Ⓚ Suspension forks
Ⓛ Front derailleur
Ⓜ Chain ring/front cogs
Ⓝ Crank
Ⓞ Chain
Ⓟ Rear derailleur
Ⓠ Valve
Ⓡ Cassette/rear cogs
Ⓢ Seat/saddle
Ⓣ Seat post
Ⓤ Brake cable
Ⓥ Brake pads
Ⓦ Brake system (example shows V brakes)

STYLE

The most common styles of bicycle are: children's bicycles, BMXs, road bikes, mountain bikes and hybrids.

- Children's bicycles – suit children under 12 years and are used for short distances (eg to school or the shops).
- BMXs – suit children and those wanting a bike that will cope with jumps, tricks and rough treatment. They are generally not recommended for long distance cycling.
- Road bikes – suit people over the age of 12. They are popular for normal road cycling. Certain styles within this group are used for racing or touring.
- Mountain bikes – suit all ages of cyclists. They are designed especially for off-road cycling, but are also used in road situations.
- Hybrids – suit all ages of cyclists. They have a mix of road and mountain bike features and are suited to on-road cycling and gentle off-road situations.

SIZE

Each style of bicycle comes in different sizes. Determine the following:

- Can the bicycle be comfortably straddled with both feet on the ground?
- Is there enough room in the seat post and handlebar stem to allow for height adjustments? If the bicycle is for a child this will help ensure that the height of the seat and handlebars can be adjusted according to the growth of the child.
- Does the cyclist feel comfortable when seated? Does the distance between the seat and handlebars feel comfortable?

Straddling the bike to check the frame size

OTHER CONSIDERATIONS

There are many combinations of bicycle components, even within each style group and it is often possible to change parts of your bicycle so that it suits your needs. Experts at your cycle shop will be able to tell you more about the options and help you with your choices. You may want to think about the following things.

Frame

Apart from the style and height, the main differences between frames will be the material they are made from. Materials include steel, alloy, and carbon, which vary in cost, strength and weight. The frame should be strong if the bicycle is going to be ridden off-road, and light if it's to be ridden in competitive or difficult situations (eg up hills).

Handlebars

Raised handlebars help learner cyclists to better control the bicycle. Low handlebars (including drop handlebars) put the cyclist's body in a low position which reduces wind resistance.

Gears

Gears are useful for cyclists with some experience who want to cycle over varied terrain and conditions. Using gears helps cyclists maintain a comfortable and manageable level of force and effort when pedalling up and down hills, in windy conditions and when accelerating.

Seats

Seats are normally designed to suit the type of bicycle, but different seats can be added to suit the rider and the type of riding they do. Seats come in varying widths and styles. There are types designed to suit men or women.

Tyres

Tyres are also designed to suit the type of bicycle, but can be changed to suit the type of riding you do. Normally, bikes designed to be ridden off-road will have wider wheels with knobbly tyres. Bikes designed for racing on the road will have thin wheels with relatively smooth tyres. For normal road riding, tyres with some tread are recommended. Thicker tyres with a dense tread pattern will generally be more forgiving of loose gravel, potholes, broken glass and bike handling errors.

Brakes

For each type of bike available there will be a number of bikes to choose from that have differing brake systems. Talk to an expert to find out what type of brake system is best for the type of riding you do.

The best bicycle for learning on

For young or novice cyclists the best bicycle to learn on has:

- a frame that can easily be straddled by the cyclist
- a seat where the cyclist can easily reach the ground with their feet when seated
- handlebars at seat level or above
- limited gear options
- brakes that are appropriate to the age and ability of the cyclist. Back pedal brakes may be a better alternative to hand brakes for very young children with small hands – these are available on some tricycles and small bicycles.

IMPORTANT

Cycles need to be the right size for the cyclist. Don't be tempted to buy a cycle for the child to grow into – it will be too difficult to manage and will be unsafe.

ADJUSTING YOUR BICYCLE

To get the best from your bicycle, it will need adjusting so that it fits you.

Seat height

NOVICES

Fix the seat at a position where, if seated, the learner's feet can reach the ground easily.

MORE EXPERIENCED CYCLISTS

The seat height should be set so that when seated, your leg is almost straight when the pedal is in its lowest position. Experienced cyclists don't need to get both feet on the ground when seated – many move forward off the saddle and put one foot flat on the ground when they stop.

In all cases make sure there is at least 6 centimetres of seat post inside the frame.

Handlebars

NOVICES

Set the handlebars level with or higher than the seat, in a position that is easy to reach. The handles of bicycles with raised bars (normally children's bicycles) should point slightly downwards.

MORE EXPERIENCED CYCLISTS

Handlebars should be set at seat level or lower if the bicycle has drop handlebars.

Brake levers

Adjust brake levers so they are within easy reach of the cyclist's hands. Cyclists that own bicycles fitted with drop handlebars may not like having to reach down to brake. In this case, flat handlebars can be purchased separately and fitted.

CYCLE HELMETS

The law requires you to wear a helmet when riding a bicycle (this includes any passengers you are carrying). We recommend all cyclists wear them. The most common cyclist injuries that cause death are head injuries, so protecting your head is important.

Buying a helmet

Use this checklist when choosing a helmet.

- ☐ It suits the type of cycling you do.
- ☐ The helmet is the right size and shape for your head. Don't buy a helmet that is too large and needs extra padding – it won't be safe.
- ☐ It is brightly coloured or has a high visibility sticker on it.
- ☐ The helmet is standards approved. One of the following stickers must be on the inside of the helmet.

S mark – complies with NZS 2063:1996 and NZS 5439

Complies with standards AS2063:1996 or AS 2063.2

Complies with European standard EN 1078

Snell standard

There is no one official label for US Consumer Produce Safety Commission compliant cycle helmets. However, helmets that have been approved will have a label inside saying the helmet complies with the US Standard.

Adjusting the helmet

All cycle helmets have different straps. Read the instructions that come with the helmet or ask an expert at the shop.

FITTING METHOD

1. Loosen all the straps.
2. Figure out which ends of the helmet are the front and back. Some helmets may be labelled with 'front' and 'back'. Normally the front of the helmet is rounder and clear of straps.

Front view of helmet

3. Place the helmet on your head and tilt it forward until the front of the helmet is two fingers width above your eyebrows.
4. Adjust the dial (if fitted) on the straps at the back of the helmet – to fit the back of your head.
5. Do up the buckle under your chin.
6. Adjust all the straps so they tighten firmly. Every strap should be firm, but you should still be able to move your chin enough to talk. If the helmet has separate chin and nape (back) straps, also check that your ears sit in the middle of the V shape of the straps and that the straps meet just below each ear lobe.

7. Give the helmet a wriggle – forwards, backwards and sideways to check it stays in place. If you can uncover the forehead, sides of the head or cover the eyes, it will need to be adjusted again. If it keeps happening, the helmet will be the wrong shape or size. You may be able to help it fit better by using foam adjuster pads, but if you have to put in very thick pads, it's probably too big.

Side view of helmet

IMPORTANT

Second-hand helmets are not recommended but if you are thinking of getting one, check it for cracks and make sure it has not been dropped, mistreated or involved in a crash. Check straps for wear and tear or fraying. Make sure the buckles work and that the helmet can still be adjusted.

Helmet check

Cycle helmets are designed to take only one hit so it's important to take good care of them. If the helmet is involved in a crash it will need to be replaced. If the helmet is dropped or mistreated it is also likely to need replacing. Check the helmet for the following every time it's used:

WEAR AND DAMAGE

Check the straps, fastenings, inner liner and outer shell. Discuss any wear and damage with an expert.

FIT

Give the helmet a wriggle to check its fit and, if necessary, adjust it.

HELMET POSITION – YOUR THREE-STEP MISSION

Perform the three-step helmet position test below and adjust if necessary.

The following three steps can be carried out to check the position of the helmet.

1. Check that your ears sit in the middle of the V shape of the straps.
2. Make sure that the front of the helmet sits two fingers width above your eyebrows.
3. Check that when the chin strap is done up, that just one finger can fit between your chin and the strap.

Three-step helmet check

CYCLE EQUIPMENT, CLOTHING AND GEAR

There are two kinds of cycle equipment – one is required by law the other is optional.

Compulsory equipment

Ⓐ A red or yellow rear reflector that is visible from a distance of 100 metres when light shines on it.

Ⓑ Good brakes on the front and back wheels (or, if the cycle was made before 1 January 1988, a good brake on the back wheel).

When cycling at night or when visibility is poor, cycles must have the following:

Ⓒ One or more steady or flashing rear-facing red lights that can be seen at night from a distance of 200 metres.

Ⓓ One or two white or yellow headlights that can be seen at night from a distance of 200 metres. Only one of these headlights may flash.

Ⓔ Pedal retroreflectors on the forward and rear-ward facing surfaces of each pedal. If the cycle does not have these the cyclist must be wearing reflective material.

Cycle lights

There are many cycle lights on the market – some are designed to help cyclists be seen by other road users during times of low light, and some lights are designed to help cyclists see where they are going, like a headlight.

When considering lights it is important to be mindful that:

- Headlights should be attached to handlebars and pointing down.
- Your lights can be a hazard if used incorrectly. You must not use cycle lighting equipment in such a way that it dazzles, confuses, or distracts so as to endanger the safety of other road users. Angling your front lights down toward the road helps prevent this.

Correct use of cycle lighting will make your cycling experience safer and more enjoyable, while ensuring other road users are not at risk.

Optional equipment to fit to the cycle

There is a wide range of other equipment that can be fitted to cycles. Some of the more useful items are:

- mudguards – only the long ones will keep you clean
- carriers – can be used with or without panniers (saddle bags) and are the best way to carry loads. A load cannot extend more than 50 centimetres on either side
- locks – these can be attached to the cycle to ensure that you always have a lock with you, or you can carry them separately
- bell or horn – to warn pedestrians when using shared paths
- pump and tools
- water bottle holder
- clip in pedals for use with shoes with cleats – special shoes that clip into the pedals
- pedals fitted with toe straps – an alternative kind of pedal/foot fastening device.

Other items include:

- side and front reflectors – front reflectors cannot be red
- safety flags – can help other drivers see you
- rear-view mirrors
- chain guards
- kick stands
- training wheels.

Whatever accessories you use, check regularly to see that they are securely fastened on.

Optional clothing and gear

It is safer to wear bright coloured and reflective clothing when you are on your cycle. If you wear a backpack it should also be bright and reflective, or covered with something bright and reflective such as a vest or cover. It is also recommended that closed toe shoes are worn. Jandals should be avoided as they slip off easily. Clothing you choose to wear shouldn't catch on the chain or on any other part of the cycle. Shoe laces and the bottoms of trousers are normally the main culprits for catching on the chain.

The following things may be useful:

- Waterproof raincoat and pants.
- A reflective vest, sash or high visibility belt with tail.
- Reflective covers for bags.
- Cycle shoes with cleats – for experienced cyclists.
- Puncture repair kit or spare inner tube.
- Bike pump.
- CO_2 canister – pumps up the tyre quickly.
- Multi-tool.
- Chain breaker and master chain link.
- Spare batteries for the bike light.

On longer rides:

- Mobile phone – a bicycle is subject to the same rules as a motorised vehicle when it comes to use of a mobile phone. See the road code for more information (www.nzta.govt.nz/resources/roadcode).
- Water bottle/food.
- First aid kit.
- Identification and emergency contact.
- Bike computer (for record and display of trip information).
- Spare change for an ice cream/drinks etc.

CHECKING AND MAINTENANCE

Maintaining your cycle regularly will enhance your cycling experience and help keep you safer. How much maintenance you can do yourself will depend on your ability and the tools you have. Many aspects of cycle maintenance can be difficult and require special knowledge and expertise. Improper adjustments can be very risky to the rider so if there is any doubt, it's best to get your bike serviced by an expert at a cycle shop.

Books or cycle maintenance classes will help you learn more about maintaining your cycle. See your local library, cycle shop or cycling club.

To help you understand the terms used in this section, have a look at the bicycle component diagram on page 64.

The pre-ride safety check

Here is a simple, checklist to help you. You should get into the habit of checking these things every time you ride. If anything is wrong after having done the check you will need to get it fixed.

EQUIPMENT	CHECK
NUTS, BOLTS AND LEVERS	• Are there any loose parts or accessories? Lift the front wheel off the ground, then let it drop. Does anything sound, feel or look loose? Do a quick inspection of the whole cycle. • Are the front wheel, rear wheel and seat post quick release levers firmly done up?
TYRES AND WHEELS	• Are the tyres firm? Check by putting your weight on the cycle while looking at the tyres. Compare the amount they bulge out to how you know they look when they are correctly inflated. • Are your tyres in good shape? Spin each wheel slowly and look for cuts in the tread and side wall. • Are your wheels straight? Spin each wheel and check that the tyre doesn't touch the brakes or wobble from side to side. Take your cycle to a bike shop for wheel straightening.
BRAKES	• Do the wheels turn when you are holding the brakes? Test each brake by holding each on in turn and make sure you can't roll the cycle forward. • Are the wheel rims and brake pads/discs clean? • Are the brake pads contacting with the wheel rims or disc? • Can the brake levers be pulled enough to stop the cycle, without them touching the handlebars?
HANDLEBARS	• Are the handlebar grips secure and in good condition? • Are the ends of the handlebars covered? • Is the seat firmly fixed so you can't twist it? • Is the seat positioned at the correct height so that your toes touch the ground when seated? • Are the handlebars firmly fixed in the frame? Stand at the front of the cycle with the front wheel held between your legs and check to make sure you can't twist the bars.
REFLECTORS AND LIGHTS	• If you are riding at night, are the lights working? • Are the reflectors visible, secure and clean? • Are your batteries fresh or fully charged?

Like any mechanical device, a cycle and its parts are subject to wear and stress. Different materials and mechanisms wear or fatigue from stress at different rates and have different life cycles. If a part of the cycle is getting too worn it can suddenly fail, causing serious injury to the rider.

If you want to do some of your own maintenance, here are a few things you can do. You should carry out these tasks on a regular basis. Depending on how regularly you cycle, it is recommended that you get your cycle checked by an approved cycle mechanic at least on an annual basis. If you cycle more frequently, every few months may be more appropriate for an expert check.

- Clean the cycle using a soft brush and regular dishwash liquid. When hosing the cycle don't squirt water directly onto the centre parts of the wheels.
- Lightly lube the chain if it is dry. Wipe off excess lube as this can clog up in the chain ring and rear cassettes.
- Take a look at the brake blocks. Are they starting to look worn or are not hitting the wheel rim squarely? They may need adjustment or replacing. If you have disc brakes, ensure the brake pads are not worn and are making contact with the discs.
- Check the frame, particularly in the area around all tube joints, the handlebars, the stem and seat post for any deep scratches, cracks or changes in colour. These are signs of wear and the part may need replacing.
- Check that all parts and accessories are secure and tightened.
- Squeeze the front brake and rock the bicycle forward and back on the ground. Does everything feel solid? If you feel a clunk with each forward or backward movement of the cycle, you probably have a loose headset, which can be tightened.
- Lift the front wheel off the ground and swing it from side to side. Does it feel smooth? If you feel any resistance or roughness in the steering, you may have a tight headset, which can be loosened a little.
- Check the bottom bracket by rocking one pedal toward and away from the centre of the cycle, then do the same with the other pedal. Does anything feel loose? If so, some tightening may be necessary.

- If your brake levers pull too far towards the handlebars, turn the brake cable adjusting barrel counterclockwise, then lock the adjustment in by turning the barrel's lock nut clockwise as far as it will go. If the lever is still moving too far you will have to see an expert.
- If the chain won't shift quietly from gear to gear, the derailleur is out of adjustment. The cause may be as simple as cable stretch – to fix this turn the shifter or derailleur cable adjusting the barrel counterclockwise a half turn. Try the gear shift again. If the problem continues tighten the cable another half turn. If this does not cure the problem you will have to see an expert.
- Check the brake and gear cables and their covers. If there is any rust, kinks or fraying they will need replacing.
- Make your way around the wheel by squeezing the spokes that are next to each other. Do they all feel about the same in terms of tightness? If any feel loose or are missing, the wheel will need looking at.
- Lean your light lens and ensure the lights are pointing in the right direction to be seen, but not dazzle other road users. Replace or recharge your batteries if low on charge.

STORAGE

Storing your cycle under cover will protect it from the weather and reduce deterioration. Be careful that it is placed so that it can't fall over and so that it does not have heavy objects leaning on it – as damage to spokes, cables and other parts of the cycle can occur if it is not stored well.

SECURITY

Record the cycle's frame number (this is usually written under the cycle near the pedals) and keep other details that can help positively identify a cycle in case of theft. A photo showing these details is perfect.

Cycles are easily stolen, so remember to carry a lock and use it. If the cycle isn't parked in a safe place, some people prefer to remove the front wheel from the cycle and lock it together with the back wheel and frame, to the cycle stand or whatever you are locking your cycle to. All items that aren't fixed to the cycle or are easily removed should be taken with you (eg bike pump, helmet).

Notes

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www.nzta.govt.nz

New Zealand Government