



Photo by: Eldrige Chang

# Safe Cycling Guide

Think Safe. Play Safe. Stay Safe.

**Sport**  
SINGAPORE

LIVE BETTER THROUGH SPORTS











## A Sports Safe Singapore

Sport Singapore (SportSG) recognises that safety must be a fundamental component of our sporting culture and a prerequisite for a healthy lifestyle. Therefore, SportSG has set a goal of zero injuries, in a belief that all accidents are preventable. Emphasising the need for personal accountability, SportSG also urges people to be responsible for the safety of others.

ActiveSG's first Sports Safety Division was formed in 2006 directly under the purview of the CEO's office. It is tasked to promote safety throughout Singapore's sporting community and to inculcate a safety first mentality in every stakeholder. For more information, please visit [sportsingapore.gov.sg/sports-education/sports-safety](https://sportsingapore.gov.sg/sports-education/sports-safety)

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 <p>Australia and New Zealand Association Cycling <a href="https://anza.org.sg">anza.org.sg</a></p>	 <p>Safe Cycling Task Force <a href="https://sctf.org.sg">sctf.org.sg</a></p>
 <p>Government of Western Australia – Department for Planning and Infrastructure <a href="https://wa.gov.au">wa.gov.au</a></p>	 <p>Singapore Amateur Cycling Association <a href="https://cycling.org.sg">cycling.org.sg</a></p>
 <p>Health Promotion Board of Singapore <a href="https://hpb.gov.sg">hpb.gov.sg</a></p>	 <p>Singapore Police Force – Traffic Police <a href="https://spf.gov.sg">spf.gov.sg</a></p>
 <p>Land Transport Authority <a href="https://lta.gov.sg">lta.gov.sg</a></p>	 <p>Singapore Road Safety Council <a href="https://srsc.org.sg">srsc.org.sg</a></p>
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Another initiative by the Safety Management Division, ActiveSG

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# INTRODUCTION

The way to safe cycling is to remember



Standardisation



Alert



Fitting Helmet



Etiquette



Photo By: Phillip Au

- Set the standards for safe cycling and cycle defensively
- Always stay visible and never assume that a motorist has seen you
- Always stay alert and predictable
- Always follow the highway code
- Wear protective and safety gear to reduce the risk of injury and harm
- Always look out for other road users or hazards
- Make sure that they are aware of your presence
- Be courteous to other road and path users
- Treat them with the same consideration as you would expect of them

# ESSENTIALS OF SAFE CYCLING

Once the sizing pads are in, the helmet must not wobble in any direction before the straps are fastened. The helmet should not tilt back. Instead, it must remain level on your head.



Here is a list of essential items that could enhance your safety when cycling:

## Helmet

Cyclists should ensure that:

- They wear helmets that meet approved standards
- The helmet is worn at all times on roads and paths that are accessible to the public
- The retention straps on the helmet are correctly fastened at all times
- Children in child carriers also wear fitting helmets that comply with the approved standards
- Helmets are changed every 2 to 3 years even if they appear to be in good condition
- They replace the helmet immediately after a collision or if it has been hit by objects on the road

### a) Fit

A snug fit is essential when buying a helmet. Choose one with an internal shape that closely matches the shape and size of your head. Do not rely on sizing pads to 'take up the slack'. Try the helmet first without the pads. Next, use your index finger to check the space between your head and the inner polystyrene. If your finger slides in easily, the space is probably too big. If the space varies from front to side, there is probably a mismatch between the helmet and the shape of your head.

### b) Visibility

Choose a bright or fluorescent coloured helmet to remain visible. Refrain from black or other dark coloured helmets as they are harder to be seen.

### c) Air Vents

They allow air circulation so that you stay cool. While comfort matters, choosing a helmet with many or excessively large vents will offer less protection.

#### d) Helmet safety standards

There are a number of internationally recognised safety standards for bicycle helmets. Inside every helmet, there should be stickers that spell out the safety specifications.

Here is a list of some helmet safety specifications to look out for:

- Snell Memorial Foundation
- CPSC
- EN1078
- American National Standard Institute
- ANSA Z-90.4
- ASTM (Do note that shatter-tests do not extend to visors.)



#### Clothing

Wear bright or fluorescent colours such as orange and yellow to ensure that you remain visible. While not essential for safety, Lycra knicks and gloves can improve your riding comfort. Do not wear bell bottom or baggy trousers as they might entangle with the bicycle gear. Avoid flip flop sandals when cycling as they tend to slip off. Instead, wear shoes or closed and strapped sandals.

#### Bell

A bell helps you to warn pedestrians of your presence. When approaching pedestrians or slow moving cyclists from the rear, always ring your bell. Sound the bell when you are about 30 metres from them. This is to prevent them from making sudden moves when you are near them.

#### Mirrors

These help you see what is happening around you. The most popular mirrors are small, circular and come with stems that clip onto the handlebars. Small mirrors that attach to helmets are also available.



#### Lights

In times of low visibility, it is mandatory to have a white light at the front of the bicycle and a red light or red reflector at the rear\*. Both must be visible from a reasonable distance. Bicycles in Singapore are prohibited from having a red light at the front. For the rear, only red reflectors or lights are permitted.

# BASIC SAFETY TIPS



Choosing the right bicycle frame will ensure that you can mount and dismount safely. When straddling a normal bicycle, the distance between your crotch and the top tube of the main bicycle frame should be at least 3cm. For mountain bicycles, the distance is about 8cm.

## Seat height

Adjust the height of the seat by placing your heel on the pedal at its lowest point – while ensuring that your leg is straight at full stretch.

Your knees should be slightly bent when you are in the proper pedalling position – with the balls of your feet on the pedal. If your hips/pelvis sways from side to side, the seat is too high.

Handlebars that are too high or low and too close or far apart may cause aches in the neck, shoulder, back and hands. The wrong angle of the handlebar may also lead to numbness in the palms.

## Seat position

Adjust the seat so that your feet are placed naturally above the pedals. Some riders may prefer a seat that is tilted slightly to the front or to the back. However, seats tilting excessively upwards may lead to pressure points. Injuries may occur when seats tilt excessively downwards.

## Handlebar angle / height

Handlebars are available in different widths and the sizes vary according to the type of bicycle.

For racing or touring bicycles, they should be about the same width as your shoulders.



Handlebars that are too close/far may cause pain in the neck, shoulder, back and hands. Riding with the wrong handlebar angle can also lead to numbness in the palms of your hands. Mountain bicycles can have handlebars that are a little wider.

For an upright position, set the handlebars higher than the seat. Setting the handlebar at the same height as the seat will give a slightly forward riding position.

# CYCLING SAFELY AT NIGHT

**Tip 1 - Night riding:**  
Tilt the front light to the eye level of cars to increase the visibility of your bicycle.



**Tip 2 - Night riding:**  
When not cycling around moving vehicles, tilt the front lamp lower to light up the path ahead.

Cycling at night can be as enjoyable as cycling in the day. You just need to exercise more caution. Recognise the dangers and dress accordingly. Remember that it is vital for all riders to remain visible at all times.

If you cycle after dark, the law mandates that your bicycle has a continuous white light in front and a red light or reflector at the rear. While prices vary drastically, do not make your decision based on price alone. For front lights, choose a bright quartz halogen lamp that produces an unbroken white beam.

For the rear, flashing red Light Emitting Diodes are acceptable but steer away from cheaper versions as they tend to be unreliable.

## Highly visible clothing

Brightly coloured clothing are necessary to help you remain visible in the dark. Reflective anklets, cloth or plastic reflective tape and stickers are highly recommended. Available in red or white, these are cheap and can be attached to bicycles, helmets and riders.

## Being alert

The number one rule of cycling is to ride defensively. Watch out for joggers, pedestrians and other vehicles. Make sure they are aware of your presence.

At night, the headlights of approaching vehicles may dazzle so be prepared.

When a vehicle is approaching you from the rear, your shadow should move to the left. If it does not, you should steer your bicycle to the left.



# CHALLENGES ON THE ROAD

To be able to exercise the necessary safety precautions, you must first be aware of the hazards of cycling. You will also need to be conscious of your surroundings. Dismount from your bicycle if conditions become dangerous. Slow down when approaching road openings, bends, junctions, bus stops and pedestrian crossings.

## Surface hazards

Watch out for:

### Uneven surfaces

You may ride slowly over these obstacles or cycle slowly around them. Always keep a lookout for litter, drains, drainage gratings, pot holes and other roadside hazards when riding close to the kerb

### Slippery and/or loose objects

Ride over them slowly and corner without tilting the bicycle excessively. Try to avoid cycling over oil patches, which are easily spotted by their rainbow-like sheen. If you must ride over oil patches, take the shortest route. Keep the bicycle as upright as you can and be prepared to put one foot down to stay balanced. Avoid applying the brakes suddenly when riding over slippery and loose ground like sand, gravel and puddles

### Sharp objects

Avoid glass, sharp metal bits and other pointed objects. If your tyre goes flat, carefully reduce your speed to a complete stop. Then dismount and push your bicycle

Constantly hydrate yourself by keeping water easily accessible without having to open your backpack.

## Hot weather

Singapore is generally hot and humid with the exception of occasional rain. It is important to check the weather before embarking on a cycling trip so that you can prepare yourself accordingly.

- When it gets bright and glaring, wear protective clothing like caps and sunglasses to help make it easier to keep your eyes on the road
- Plan your route so that it includes paths with lots of shade
- Choose water bottles with push-pull caps. These let you drink without having to unscrew the caps, so that you can keep one hand on the handlebar

Your braking distance is increased on wet roads. Cycle slowly as it allows you to apply your brakes gently.

## **Wet weather**

Roads become slippery when they get wet. Always exercise caution when it rains.

## **Visibility**

Visibility is reduced in wet weather. Wear bright clothing, and if necessary use your lights so that other motorists are aware of your presence. Avoid cycling in the rain where possible.

## **Braking**

To get used to braking on wet surfaces, practise on streets with no traffic.

## **Cornering**

Negotiate corners slowly while keeping your bicycle as upright as possible.

## **Puddles**

When possible, avoid puddles. They provide less traction and may conceal potholes, sharp objects and other hazards.

## **Slopes and hills**

If you often cycle up and down slopes, try to get a bicycle with gears. It is also important to master gear changing. The following tips have been provided as a quick guide to gear changing:

- Change to a gear you are comfortable with on level terrain
- Low gears make pedaling easy
- Switch to a lower gear when going uphill
- Change gears before you reach the hill to maintain your momentum

## Road safety

<b>Starting off</b>	<ul style="list-style-type: none"><li>• Look behind you and your left and right before moving off</li></ul>
<b>Controlling road position</b>	<ul style="list-style-type: none"><li>• Keep left unless turning right and ride in a straight line with the traffic flow</li><li>• Ride at least one metre away from parked cars as their doors may be opened unexpectedly</li><li>• Keep a safe distance away from the kerb</li><li>• Do not follow cars or other vehicles too closely</li><li>• Always check for traffic behind you. It helps to listen for approaching cars too</li><li>• Ride safely to control your speed and braking</li><li>• Do not swerve or make sudden turns as drivers may not be able to react fast enough to avoid colliding into your bicycle</li><li>• Watch out for potential hazards - potholes, gravel and drainage holes</li><li>• Look out for vehicles coming in and out of driveways</li><li>• Be particularly alert near driveways, gateways and intersections</li></ul>
<b>Braking smoothly</b>	<ul style="list-style-type: none"><li>• Use your front and back brakes</li><li>• Stop in a straight line with complete control over your bicycle</li></ul>
<b>Crossing and signalling</b>	<ul style="list-style-type: none"><li>• Teach your child simple road rules such as stopping at the kerb, looking right, left, then right again, listening for approaching cars and thinking before crossing</li><li>• Give hand signals clearly and in good time</li></ul>

<b>Turning left</b>	<ul style="list-style-type: none"><li>• Always check behind you and look for approaching vehicles from the right</li><li>• Signal clearly if you intend to stop, give way or turn into another road</li><li>• Turn at a speed that allows you to keep full control over the bicycle</li></ul>
<b>Turning right</b>	<ul style="list-style-type: none"><li>• Check behind you before signalling and only move to the right when the road is clear</li><li>• Move closer to the left of the centre of the road</li><li>• Signal to stop if the intersection is not clear or signal to turn if the intersection is clear</li><li>• Keep both hands on the handlebars while you are turning</li><li>• Move through the intersection and ride to the left of the road</li></ul>
<b>Keeping control on hills</b>	<ul style="list-style-type: none"><li>• When riding uphill, keep a straight line without wobbling or swerving</li><li>• When riding downhill, keep a constant road position</li><li>• Always keep your bicycle under control with front and back brakes</li><li>• Make sure you have both hands on the handlebars except when signalling</li></ul>

# SAFETY GUIDELINES FOR YOUNG CHILDREN

Learning to ride a bicycle is a rewarding experience for all children. It gives a great sense of achievement, helps develop balance and coordination, and encourages social contact.

It is important to let children learn at their own pace. Training wheels are an effective way to help your child gain confidence and stability. When your child starts riding without training wheels, support the bicycle at the back of the saddle and run behind as they learn to balance. Once your child is more confident, teach them to ride unsupported on a grass park or tennis court.

The best bicycle for your child is one that is easy to handle and has a frame suitable for your child's body shape.

When buying a bicycle for a child, it is important to consider:

- Handlebars (BMX or flat style is better)
- Wheels (size and type)
- Effective hand operated wheel brakes
- Bottom bracket

Here is a simple checklist to go through to ensure that the bicycle is the right size for your child:

- Is there at least a 3cm height clearance between the main top tube of the bicycle frame and the lowest point of your child's body when they are standing with their feet flat on the ground?
- If the bicycle is a BMX or mountain bicycle, is there a clearance of 10cm?
- Are the handlebars and handbrakes within reach? When your child is seated, his/her arms should be slightly bent when holding the handle grips and knees should not hit the handlebar.
- Is the seat level when your child is seated?

# HELPING YOUNG CHILDREN LEARN TO RIDE SAFELY

Remember: children aged 12 years old and under have difficulties concentrating for prolonged periods, gauging distances and judging speed.

The next stage should be to teach children to exercise necessary care on shared or cycling paths.

## Get to know your local area

Help your child to map out a safe route. It is usually the one with the least traffic and fewest roads to cross.

## Equipment

Ensure your child is wearing a helmet and highly visible clothing and shoes. Make sure that their bicycles are maintained, their helmets fit properly and the straps are always done up.

## Weather

Avoid cycling in extreme weather. Encourage your child to wear a hat, sun screen lotion and sunglasses, even on cloudy days. Be sure that your child has a water bottle too.



Photo By: DyanTjhia



Photo By: DyanTjhia

Make sure your children know where they can go for help and what to do when danger arises.

## Helmets

Head injuries are caused when cyclists hit objects or fail to break their fall.

Make sure that your child wear a lightweight helmet that fits the head while providing sufficient ventilation. The helmet should also be of a colour that is easily seen on the road on shared or cycling paths.

Child helmets are designed for those aged between five and six years. Children above seven years old should wear adult helmets.

### Checking the helmet fit

- Place the helmet on your child's head and check that it fits snugly
- Adjust the straps and do up the buckle
- Place your palm under the front of the helmet and push it up and back and ensure that it does not move
- Place your palm on top of the helmet and push it from side to side to ensure that it does not move
- For maximum protection, the helmet must fit well

# CHOOSING A BICYCLE



It is very important that you buy a bicycle that fits your needs and plans. Determine what you want to use your bicycle for. Is it for racing, commuting, off-road exploration, long distance touring or some other purpose? There are varying frame sizes to suit your body shape, accessories to tailor the bicycle to your specific needs, and differing levels of quality and budgets.

There are many types of bicycles, each with their own characteristics and uses. Here is a quick summary:

## Mountain bicycles

Popular both on and off the bitumen, they have wide and knobby tyres, flat handlebars and between 15 and 27 derailleurs gears. Bicycles fitted with standard tyres perform better off road than on bitumen. However, special slick tyres can be fitted to make road cycling easier.



## Hybrid bicycles

Sometimes called “cross” or “city” bicycles, these look like slim-framed mountain bicycles with narrower tyres and slightly raised handlebars. Despite their appearance, they perform better on bitumen than off. Gearing varies from 15 to 24 speed, with 21 speed being the most common. They are good for commuting or short leisure trips.





### **Touring bicycles**

As the name implies, these are long distance bicycles capable of carrying cargo. They are strong with a big frame triangle, drop handlebars and 14 to 27 speed.

### **Road racing bicycles**

Despite a finer frame, a shorter wheelbase and drop handlebars, they have the same appearance as quality touring bicycles. Built for speed, these bicycles are light and therefore not as structurally strong as other bicycles.

### **Foldable bicycles**

There are a number of bicycles on the market that can be reduced in size to allow easier carriage and storage. They usually involve a folding sequence with the wheels, handlebars and frame hinged together into a tight package. When fully folded, they take up less than half the space of a standard bicycle. However, compromises have to be made in the process. Often the wheels are smaller than other bicycles and not suited for long distance riding.



Foldable bicycles are permitted on public buses and Mass Rapid Transit (MRT) trains in Singapore. Before taking a foldable bicycle onto public transport, make sure you comply with all the regulations. More information is available on page 31.

# CHOOSING ACCESSORIES

A water carrier is an important bicycle accessory. It helps you stay hydrated.

## Child carriers

This is a great way to introduce your child to cycling. Some models of child carriers attach:

- to the rear of a bicycle
- on top of a carrier
- to the centre of the bicycle frame and in front of the rider

Always ensure your child is securely fastened in and wearing a protective helmet before you start cycling. It also helps to educate your child about safety and proper conduct when sitting in the child carrier.

These seats must be:

- securely attached to the frame
- attached in a position that is not in front of or on the handlebars
- fitted with a footrest to prevent the child's feet from dangling
- fitted with a restraining device that cannot be accidentally released

## Load carriers

Avoid carrying heavy or bulky items in front load baskets. This can affect the ease with which you can turn your bicycle handle, making steering more difficult. It is easier to let the bicycle, rather than the rider carry the load, so use a rear rack where possible.

It is important to note that when attaching racks, baskets or bags to your bicycle, they do not put pressure on brake cables, or obstruct the reflector, lights or your pedals and feet. Each bicycle should not carry a load that weighs more than 18kg in total. The load cannot overhang the body fitted thereto nor shall its height be more than one metre from the ground\*.



## Rear racks

These create a flat carrying surface over the rear wheel. They also act as a base for the attachment of panniers and baskets. Note that some racks have a strong spring-loaded gripping mechanism that may damage soft or fragile goods.

## Baskets

It is usually more efficient to place a larger basket on the rear of the bicycle than in the front. Only place lighter items in a front basket. Rear baskets can usually accommodate more weight (up to 10 kg).

## Panniers

Like saddlebags, they hang down on either side of the bicycle. Most are waterproof but if not, use waterproof covers. They have the benefit of a low centre of gravity and are therefore very stable. When packing a pannier, avoid placing pointed items directly against the sides as they may tear the lining. Try to distribute the load evenly on both sides of the bicycle and if you have front and rear sets, arrange items so that 60% of the weight is in the back pair and 40% in the front pair.

## Bicycles carriers

The two common ways to transport bicycles on vehicles are with a roof rack or a tow bar carrier. Both designs make it easier to transport your bicycle. When making a choice, consider both safety and security factors.

## Pumps

Traditional models have a cloth covered extension tube that screws into the pump at one end and the tyre valve at the other. Increasingly popular are high pressure pumps that fit directly to the valve without an extension tube. Besides floor pumps, there are also those that are found in petrol stations. Whatever type of pump you use, be sure not to over inflate the tyres. You will generally find bicycles fitted with one of two types of valve - Presta (racing bicycles) or Schraeder (similar to a car valve). The two are not interchangeable, so you must ensure your pump fittings match the valve. Valve adaptors are small and easily found in most bicycle shops and may come packaged together with some bicycle pumps. It is good to always have an adaptor handy to facilitate pumping, especially if the air pumps at most petrol stations do not fit your bicycle's tyre valve.

## Water bottle cages

The need for cyclists to stay hydrated makes a water carrier an important accessory for your bicycle. Water bottle cages should give you easy access to your water bottle.



### **Tool bags**

Available in leather or plastic, tool kits usually do not come with the bicycle and have to be purchased separately.

### **Computer**

Cycle computers provide information on speed, total time and trip distance. They are a great way to encourage regular cycling, or to set a training regime.

### **Overall roadworthiness**

A bicycle must be properly maintained so that it does not present a danger to road users.



A bicycle is not roadworthy if the:

- chain is too loose (more than 25mm of play)
- wheel nuts or wheel bearings are loose
- tyres are in poor condition
- wheel rims are buckled or spokes are missing
- brake callipers are misaligned or brake shoes are excessively worn
- steering assembly is loose
- seat is not securely fitted

# BASIC BICYCLE MAINTENANCE



How often you need to do maintenance on your bicycle will depend on how regularly you cycle it. However, no matter how often you ride, a well-maintained bicycle works better, is safer and more fun to ride than one that has been neglected by its owner. Servicing and repairing a bicycle is inexpensive compared to a car. Depending on how often you ride, you should maintain your bicycle on a daily, weekly or monthly basis. No matter what, it must be serviced at least once a year by an experienced and knowledgeable bicycle mechanic.

## Doing it yourself

The beauty of a bicycle is its simplicity. You can carry out many repair and maintenance jobs yourself. To make this task easier, have the right tools, allow yourself plenty of time and do the job methodically. The reward for your effort is the satisfaction of doing the job yourself (and perhaps saving a few dollars) while learning new skills and gaining the confidence to carry out more difficult repair tasks.

## Tool kit

The basics are a puncture repair kit, tyre levers, screwdriver, set of allen keys, set of spanners or a small shifting spanner, cleaning rags, an old toothbrush and lubricants such as light oil and grease. More advanced work will require specialist tools.



## Daily maintenance

Before riding, give your bicycle a quick but thorough lookover. Check the brakes and tyre pressure. Properly inflated tyres are easier to ride on, prevent damage to the wheel rims when hitting bumps, and reduce the chance of punctures.

## Weekly maintenance

If necessary, lubricate exposed moving parts of the bicycle with a light oil, such as sewing machine oil. Do not get oil on the tyres or rims, and do not use penetrating spray oil on bearings.

Oil the following areas:

- Front and rear derailleur gears
- Front and rear brake pivots
- Brake and gear levers
- and a small amount on each chain link

## Monthly maintenance

### Wheels

- Check tyre pressure and condition
- Pump tyres to recommended pressure
- The valves should be upright and not leaking
- The wheels should be straight, without any damage and can spin freely
- Replace broken spokes and tighten loose ones
- Check axle nuts and cones and tighten if necessary
- If the wheel have quick release mechanisms, make sure they are securely fastened

## **Brakes**

- Check brake blocks for wear, and ensure that they contact squarely with the rim, not the tyre
- Replace worn or frayed brake cables
- Adjust brakes so that even when braking hard, there is still some clearance between the brake levers and handlebars

## **Gears**

- Check derailleur gear action and cables (derailleur repairs are best left to a mechanic)
- Clean chain with a rag soaked in degreaser and re-oil
- Clean rear sprockets

## **Steering**

- Check for looseness in the handlebar and stem
- Ensure that the handgrips are secure

## **Pedals**

- The axle must spin freely
- Check pedal axles and bottom bracket axles for excessive looseness

## **Frame**

- Inspect for damage
- Ensure that seat-post height is correct and that the seat-post bolt is tight

## **Accessories**

- Check to ensure the bell works
- Ensure that the bicycle has a rear reflector
- Make sure that the white headlight and red tail light work

# CYCLING FOR HEALTH & FITNESS



Photo By: Shau Chiet



## Before start of exercise

Get the all clear from your doctor before starting an exercise programme, especially if you are overweight, smoke, or have high blood pressure.

Alternatively, you can run through the Physical Activity Readiness Questionnaire (PAR-Q) on page 23.

Cycling is a relatively inexpensive way to achieve better health and fitness. Because it is a low impact activity, cycling places very little strain on the body. This is especially good for people who are starting to get into exercise, pregnant women and people who are recovering from injury. Cycling also gives a great cardiovascular workout because it uses the biggest muscles in the body.

Cycling can save you money, improve your health and help you enjoy the outdoors. Regular cycling will:

- make you feel more energetic
- lessen the risk of many lifestyle diseases such as cardiovascular disease
- help you sleep better
- reduce stress
- strengthen your heart
- improve your blood pressure
- help you manage your weight
- aid the release of 'feel good' body chemicals called 'endorphins'





## Warming up

As with any exercise, it is important to warm up before cycling. Cycling gently for 10 minutes will warm your body up and prepare your muscles for more intense exercise.

Increase your cycling speed and distance at a steady rate as you get fitter, remembering that you are exercising for good health and enjoyment. As a guide, a beginner with a moderate level of fitness should aim to cover five kilometres in 20 minutes.

## Cooling down

Rest is also very important as it allows your body to recuperate. Cooling down after a ride is just as important as warming up beforehand. Ride at an easy pace for the last five minutes of your ride and you will finish refreshed and revitalised, rather than strained and tired.

Take it easy in the beginning. When you first start cycling you should aim to cover five kilometres in 20 minutes.

## Current recommendations for physical activity

The Health Promotion Board of Singapore recommends 30 minutes of exercise, five to seven times a week. If the thought of continuously exercising for 30 minutes is too daunting, you could break the 30 minutes into shorter periods. For example, you could exercise for 10 minutes, three times a day, or 15 minutes twice a day and still enjoy the same benefits.



To get the most out of cycling, try to go at a pace that makes you breathe a little faster, feel warmer and have a slightly raised heartbeat.

# BEFORE YOU CYCLE

Regular physical activity is fun and healthy. Increasingly, more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctors before they start becoming more physically active.

If you are planning to become more physically active than you are now, start by answering the seven questions in the PAR-Q. The Physical Activity Readiness Questionnaire (PAR-Q) is designed to help you assess your level of readiness for physical activity. It is simple and it takes a fraction of your time to complete. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are above 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check **YES** or **NO**.

YES NO

- Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
- Do you feel pain in your chest when you do physical activity?
- Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?
- Do you lose your balance because of dizziness or do you ever lose consciousness?
- Do you know of any other reason why you should not do physical activity?
- Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart conditions?
- In the past month, have you had chest pain when you were not doing physical activity?

### **If you answered YES to one or more questions:**

- Consult your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES
- You may be able to do any activity as long as you start slowly and build up gradually
- You may need to restrict your activities to those which are safe for you
- Consult and follow the advice of your doctor about the kinds of activities that are suitable for you
- Find out which community programmes are safe and helpful for you

### **If you have answered NO honestly to all PAR-Q questions, you can be reasonably sure to:**

- Start becoming much more physically active. Starting slowly and building up gradually is the safest and easiest way to go
- Take a fitness appraisal to determine your fitness level so as to plan the best way to live actively

### **Delay becoming much more active if:**

- You do not feel well
- You are or may be pregnant – consult your doctor before you start becoming more active

# CYCLING AND THE LAW

This section covers the requirements and offences as laid down by the Road Traffic Act; so you know how to comply with all the rules and regulations. Users are also encouraged to cycle safely and conscientiously so as not to endanger anyone, including themselves.

## The bicycle

A bicycle is a legal road vehicle provided it is suitably constructed and equipped. In Singapore, conventional bicycles do not have to be formally registered by licensing authorities in order to be used on public roads.

Under the Road Traffic Act, a bicycle refers to a two-wheeled pedal cycle, that is constructed or adapted for use as a means of conveyance.

## Carrying or towing loads

Any load or attachment on a bicycle must not pose any risk to the rider or any other person. Each bicycle should not carry a load that weighs more than 18kg in total and the load cannot overhang the body fitted thereto nor shall its height be more than one metre from the ground.

## Cycling equipment

A bicycle must have:

- A red reflector fitted to the rear

When riding in dark surroundings (7pm - 7am), a bicycle must also have:

- A front light showing an unbroken white beam that is clearly visible as far as 200 metres
- A rear light showing an unbroken or flashing red beam that is clearly visible as far as 200 metres

## Road Traffic (Bicycles) Rules

When using a public road, all bicycle riders must obey the same rules as other vehicles such as cars and trucks. A cyclist may be punished under the Penal Code/ Road Traffic Act should he/she act rashly or negligently so as to endanger human lives or the personal safety of others.

As a general rule, cyclists shall not unreasonably obstruct or prevent free passage of a vehicle or pedestrian upon a path or road. Similarly, vehicles and pedestrians shall not unreasonably obstruct cyclists.

Bicycles are not permitted to be towed by any other vehicle when on the road.

### Restriction on number of persons carried

- All bicycles cannot exceed the limit of passengers it is designed for
- A child under 12 years of age may be carried on a properly constructed child seat affixed firmly to the pedal bicycle

### Travelling abreast

- Bicycles are not permitted to be ridden on the right of another vehicle proceeding in the same direction except when overtaking such other vehicle
- Bicycles shall not be ridden on the right of any two other pedal bicycles proceeding abreast in the same direction except when overtaking such other pedal bicycles or on parts of roads or paths set aside for the exclusive use of bicycles
- When a portion of a road or path has been set aside for the exclusive use of bicycles, bicycles cannot be ridden on any other part of the roadway

## On-Road (Bicycles) Rules

Bicycles are also not allowed to be ridden on any part of any expressway<sup>^</sup>.

<sup>^</sup>Road Traffic (Expressways – Excluded Vehicles) Rules 2010, Road Traffic (Bicycles) Rules and the Highway Code.

**Common infringements by cyclists in Singapore include but are not limited to:**

- Failing to keep a proper lookout for others
- Changing lane without due care
- Failing to give way to traffic with right of way
- Riding against the traffic flow
- Failing to conform to red light signal
- Riding on any other part of the roadway when a portion of a road or path has been set aside for the exclusive use of bicycles
- Riding on any part of any expressway
- Not slowing down when approaching road openings, bends, junctions, bus stops and pedestrian crossings
- Cycling across pedestrian crossings

## Dealing with traffic

- On-road cyclists need to ride defensively at all times
- Try not to ride along a road directly into the rising or setting sun as the lighting condition make it harder for motorists to see you
- Show caution when nearing a motorist who is intending to turn left across your path. Always assume the motorist has not seen you
- Always use the correct hand signals to indicate when you want to turn left or right and to stop. Signal well ahead of your action so other road users have enough time to take the appropriate action

<b>Turning left</b>	<ul style="list-style-type: none"><li>• Fully extend your left arm horizontally with the palm of the hand to the front</li></ul>
<b>Turning right</b>	<ul style="list-style-type: none"><li>• Fully extend your right arm horizontally with the palm of the hand to the front</li></ul>
<b>Stopping</b>	<ul style="list-style-type: none"><li>• Fully extend your right arm horizontally with the forearm vertical and with the palm of the hand to the front</li></ul>
<b>U-turning</b>	<ul style="list-style-type: none"><li>• Same rules apply as for a right hand turn</li></ul>

- When approaching parked cars, slow down and keep a safe distance from them
- Avoid riding within two metres from the rear of a motor vehicle, for a distance of more than 200 metres
- Never overtake on the left of a motor vehicle if it is moving and is indicating to turn left

# CODE OF CONDUCT

## Off-road Cycling

- Always give way to pedestrians on footpaths and shared paths
- When a cycling or shared path is next to a footpath, use the cycling or shared path instead of the footpath
- Slow down and be prepared to stop when approaching high pedestrian-traffic areas such as bus-stops
- Either 'walk your bicycle' or dismount and push at high pedestrian-traffic areas
- Stop and look out for on-coming traffic when approaching pedestrian crossings, and cross only at walking speed
- Keep left unless when overtaking
- Do not overtake others when approaching places such as pedestrian crossings, corners and bends
- Keep a safe distance from other users to avoid collisions
- Slow down when approaching intersections or where there is limited sight distance such as around bends
- Slow down and give way to vehicles/pedestrians when approaching car parks/pedestrian accesses

## On-road Cycling (both conventional and electric bicycles)

- Slow down and look out for other road users when approaching bends, junctions, bus stops and pedestrian crossings or when passing a parked car
- Do not weave through traffic
- Do not squeeze between a stopped bus at a bus stop and the kerb
- Avoid squeezing between a turning vehicle and the kerb
- Keep a safe distance behind moving vehicles
- Do not hold on to the back or side of motor vehicles
- If available, use the cycling or shared path instead of riding on the road

## General Code of Conduct for Cycling

- Ring the bell/suitable device fitted that is capable of providing an audible signal only when necessary, such as when trying to overtake others
- Ensure that your device lights, brakes, tyres, chain and so forth are in good condition before setting off
- Always stop to render assistance and exchange particulars when involved in an accident



# PARK CONNECTOR NETWORK (PCN) ETIQUETTE

A pleasant experience on the PCN requires all of us to be considerate towards one another. This section aims to help you have a safe and enjoyable time using the PCN. Do read this section and share these tips with your friends.

## PCN Users on Foot and Rollerblades

- Always keep to the left side of the track and be aware of other users around you
- Be careful when crossing the PCN, especially in front of an approaching cyclist. Keep in mind that cyclists will require sufficient distance to slow down and stop
- When walking or rollerblading at night, wear bright-coloured clothing so that other users, like cyclists, are able to see you clearly from a distance
- Wear personal protective gear such as helmet or knee guards when rollerblading for your own safety

## PCN Users on Bicycles

- Ensure that your bicycle lights (front and back), brakes, tyres and chain are in good condition before setting off. When riding at night, keep your bicycle lights on to make yourself more visible to other users
- Keep to the left side of the track, ride in single file and avoid weaving along the track
- Refrain from speeding
- Slow down and give way to other users especially at crowded or narrow areas
- Keep a safe distance from other users to avoid collisions
- Do not overtake others when approaching pedestrian crossings, corners and bends
- Pedestrians have the right of way on pedestrian crossings
- Keep both hands on the handlebars unless signalling. Signal in good time before you make a change in direction
- Wear protective cycling gear such as helmet for your own safety
- Do not use electric or motorised vehicles on the PCN

# FOLDABLE BICYCLES ON BUSES AND TRAINS

Commuters are permitted to travel with their foldable bicycles on the Mass Rapid Transit (MRT) and Light Rail Transit (LRT) trains and buses, subject to the following conditions:

- Allowable hours are weekday off-peak times (9:30am to 4:00pm and 8:00pm to end of service) and at all times on Saturdays, Sundays and Public Holidays
- Only one foldable bicycle is allowed on board a bus at any time

Commuters with a foldable bicycle must ensure that it:

- Does not exceed 114cm by 64cm by 36cm when folded
- Does not have protruding parts likely to cause injury to other commuters
- Does not block the aisles and doors of trains and buses at any time
- Is folded at all times on the trains and at MRT/LRT stations
- Is not left unattended at any time
- Is carried in an upright position
- Is not placed on the upper deck of a bus or on the staircase leading to the upper deck
- Uses the first or last car on trains, which tend to be less crowded
- Uses lifts and wide fare gates at MRT/LRT stations

LTA is currently revising its guidelines on foldable bicycles on buses and trains. For more information, please refer to the following website [www.lta.gov.sg](http://www.lta.gov.sg) for updates.





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