

Here's a simple checklist to go through to ensure 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 feet flat on the ground?
- If the bike is a BMX or mountain bike, is there a clearance of 10cm?
- Are the handlebars and handbrakes within reach? When your child is seated their arms should be slightly bent when holding the handle grips and their knees should not hit the handlebar.
- Is the seat level when your child sits down?

7.2 Helping Young Children Learn To Ride Safely

It is important to let your child learn at his or her 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 bike 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.

Remember that children under 12 have difficulty maintaining concentration, gauging distances and judging speed.

The next stage should be on light traffic and, later, on the road with a parent. In this latter stage, a parent can teach road rules and how to exercise necessary care. Here are a few tips to get young children to start cycling:-



Cycle with other people

- ▶ Children under 12 are still developing their peripheral vision and hearing, so should be supervised around traffic.
- ▶ If your child is over 12 years, cycle with them until you are confident they have a well-developed road sense.



Get to know your local area

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

Equipment

- ▶ Ensure your child is wearing a helmet, has a water bottle and wears highly visible clothing and shoes.
- ▶ Make sure their bike is maintained, their helmet fits properly and is always done up.
- ▶ Give gifts or toys that promote physical activity (eg bikes, sneakers, hats).



Weather

- ▶ Avoid cycling in extreme weather.
- ▶ Encourage your child to wear a hat, slap on some sun screen lotion and wrap on sunglasses, even on cloudy days.

7.3 Helmets

Head injuries happen when riders hit nearby objects or can't break their fall.

Make sure your child wears a helmet that fits their head, is lightweight, has good ventilation and is a colour that is easily seen in the traffic environment.



Child helmets are vital for children up to age five or six. After that, their head is almost adult size and they should be able to wear adult helmets.



Checking the helmet fit

- Place the helmet on your child's head checking that it fits snugly.
- Adjust the straps and do up the buckle.
- Place your palm under the front of the helmet and push up and back. It shouldn't move.
- Place your palm on the top of the helmet and try to move it side to side. It shouldn't move.



For maximum protection the helmet must fit well.

If a helmet is loose it will not give your child maximum protection.



8. CHOOSING A BIKE

It is very important that you buy a bicycle that fits your needs and plans. Determine if you want the bike for a specific purpose e.g. racing, commuting, off-road exploration, long distance touring etc. There are varying frame sizes to suit your body shape, accessories to tailor the bike to your specific needs, and differing levels of quality that, in general, match the cost of the bike.

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

8.1 Mountain Bikes

Popular for both on and off the bitumen. They have wide, knobby tyres, flat handlebars and between 15 and 27 derailleurs gears.

Bikes fitted with standard tyres perform better off road than on bitumen. However, special slick tyres can be fitted that make road cycling easier.



8.2 Touring Bikes

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



8.3 Hybrid Bikes

Sometimes called “cross” or “city” bikes, these look like slim-framed mountain bikes 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.



8.4 Road Racing Bikes

Similar in appearance to a quality touring bike, although having a finer frame, shorter wheelbase and drop handlebars. Being very light, these bikes are built for speed on the road. This means they are not as structurally strong as other types of bikes.

8.5 Foldable Bikes

There are a number of bikes on the market that can be reduced in size to allow easier carriage and storage. They usually involve a folding sequence where the wheels, handlebars and frame hinge together into a tight package. The advantage being that when fully folded, they take up less than half the space of a standard bicycle. However, compromises have to be made to accomplish this. Often the wheels are smaller than other bikes and not suited to long distance riding.

Foldable bikes are permitted on public buses and Mass Rapid Transit (MRT) trains in Singapore and there are several important criteria and regulations to take note of before a cyclist is allowed to do so. For more information on the requirements and general guidelines, please refer to page 45.



9. CHOOSING ACCESSORIES

9.1 Child Carriers

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



- ▶ the rear of a bike
- ▶ on top of a carrier
- ▶ to the centre of the bicycle frame ahead 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 forward of or on the handlebars.
- ▶ fitted with a footrest that prevents the child's feet from dangling.
- ▶ fitted with a restraining device that cannot be accidentally released.

9.2 Load Carriers

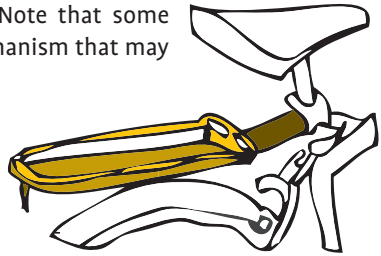
Avoid carrying heavy or bulky items on front load baskets as these can affect the ease with which you can turn your bicycle handle, making steering more difficult. It is easier to let the bike, rather than the rider carry the load so use a rear rack where possible instead of a front load basket.

It is important to note that whenever attaching a rack, basket or bags to your bike, be sure to check that it does not place 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.⁴

⁴Source: Road Traffic Act (CHAPTER 276, SECTION 140) as of 15th April 2009

► Rear Racks

These create a flat carrying surface over the rear wheel. This can be used to strap or secure a load on top. 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.

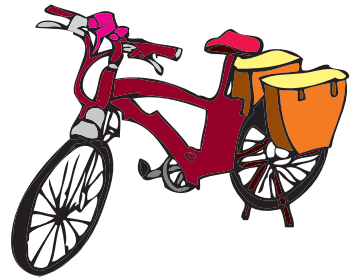


► Baskets

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

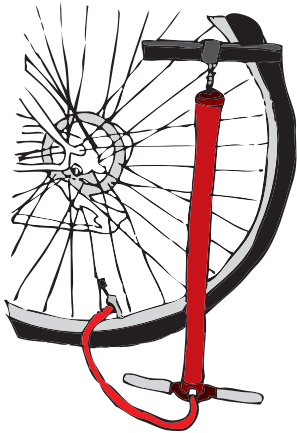
► Panniers

These have the appearance of saddlebags that hang down either side of the front and rear wheel. Most are waterproof but if not, you can buy waterproof covers. They have the benefit of low centre of gravity and are therefore very stable. When packing a pannier, try to 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 bike and if you have both sets, arrange items so that 60% of the weight is in the back pair and 40% in the front pair.



9.3 Bike Carriers

The two common ways to carry bikes on vehicles are on a roof rack or a tow bar carrier. Both designs make it easier to transit your bike. When making a decision on which suits you, consider both safety and security factors.



9.4 Pumps

Traditional models have a cloth covered extension tube that screws into the pump at one end and the tyre's valve at the other. Increasingly popular are high pressure pumps that fit directly to the valve without an extension tube. There are also floor pumps, as well as the local service station - but remember not to inflate the tyre too much. You will generally find bikes fitted with one of two types of valve - Presta (racing bikes) 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 available from most bike shops and 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 bike's tyre valve.

9.5 Water Bottle Cages

The need for cyclists to maintain their water level makes a water carrier an important accessory for your bicycle.

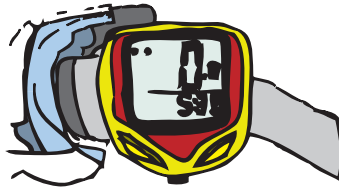


9.6 Tool Kits

Once again, these will generally need to be purchased separately. Leather or plastic tool bags are available which mount to the frame of the seat. A tool bag should contain a puncture kit, tyre levers, small adjustable spanner, screwdrivers and perhaps a spare tube.

9.7 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.



9.8 Overall Roadworthiness

A bicycle must be properly maintained so that it does not present a danger to the rider or other road users. A bicycle can be judged to be 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; or
- ▶ seat is not securely fitted.



10. BASIC BICYCLE MAINTENANCE

A healthy bike works better, is safer and more fun to ride than one that has been neglected by its owner. Servicing and repairing a bike is inexpensive compared to a car.

Depending on how often you ride, you should maintain your bike on a daily, weekly or monthly basis. No matter how expensive or new the bike, it must be serviced at least once a year by an experienced and knowledgeable bicycle mechanic.



Doing It Yourself

The beauty of a bike 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 and an old toothbrush, and lubricants such as light oil and grease. More advanced work will require specialist tools.

10.1 Daily Maintenance

Whenever you intend to ride, first give the bike a quick 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.

10.2 Weekly Maintenance

If it is required, lubricate exposed moving parts of the bike 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.

10.3 Monthly Maintenance

Check the major items on your bike as follows:

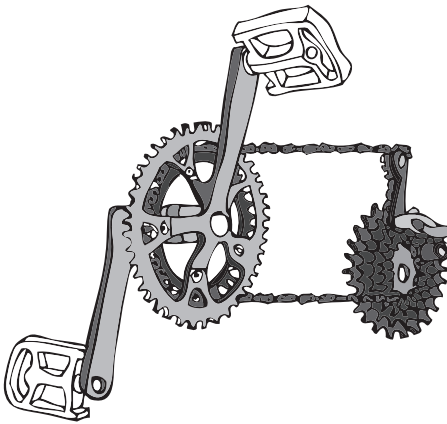
Wheels

- ▶ Check tyre pressure and condition. The tyres should be hard to squeeze. The valves should be upright and not leaking.
- ▶ The wheels should be straight and true, without dents or other damage, and can spin freely.
- ▶ Replace broken spokes and tighten loose ones.
- ▶ Check axle nuts and cones. Tighten if necessary.
- ▶ If the wheels have quick release mechanisms (especially the front wheel), make sure they are securely fastened, otherwise the wheels could fall out, causing a crash and severe injury to the rider.



Brakes

- ▶ Check brake blocks for wear, and make sure 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

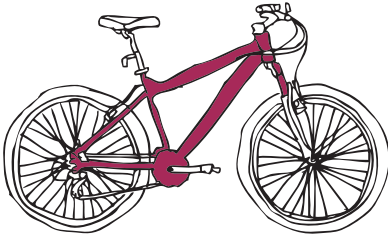
- ▶ Check derailleur gear action and cables (derailleur repairs are best left to a mechanic).
- ▶ Clean chain with a rag soaked in degreaser and re-oil.
- ▶ Clean rear sprockets.

Steering

- ▶ Check for looseness in the handlebar and stem.
- ▶ Ensure 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 seat post height is correct and that the seat post bolt is tight.

Accessories

- ▶ Check to ensure the bell is in working order.
- ▶ Ensure the bicycle has a reflector at the rear.
- ▶ Make sure the white headlight and red tail light are in working order.

11. CYCLING FOR HEALTH & FITNESS

Cycling is a relatively inexpensive way to achieve better health and fitness. Because it's 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 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'



11.1 Before Start of Exercise

1. Get the all clear from your doctor before starting an exercise program, especially if you are overweight, smoke, or have high blood pressure. Your doctor will advise you on your heartbeat rate and how high it can go safely when exercising.
2. Alternatively, you can run through the Physical Activity Readiness Questionnaire (PAR-Q) on the following page.

11.2 Physical Activity Readiness Questionnaire (PAR-Q)

Are You Ready for Sports?

PAR-Q is designed to help you assess your level of readiness for physical activity. It is simple and it only takes a fraction of your time to complete!

PAR-Q & You

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and 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 doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. 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 over 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

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Do you feel pain in your chest when you do physical activity? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. In the past month, have you had chest pain when you were not doing physical activity? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Do you lose your balance because of dizziness or do you ever lose consciousness? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. 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? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Do you know of any other reason why you should not do physical activity? |

Par-Q can be downloaded from www.ssc.gov.sg and it is available in Chinese, English, Malay and Tamil.