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## Cycling - preventing injury

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### Summary

- Common causes of cycling-related injuries include incorrect riding postures and demanding too much of your body.
  - Only seven per cent of cycling injuries involve collisions with other vehicles – you are much more likely to hurt yourself by falling off your bike or hitting a stationary object.
  - Children, particularly those of primary school age, are most at risk of bicycling injury.
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Cycling is a cheap and convenient type of transport with very low environmental impact, and is an enjoyable physical activity for all ages. Cycling can improve your physical and mental health.

Pedalling is a low-impact activity that improves muscle tone without stressing your knee and ankle joints. Cycling is particularly good for cardiovascular fitness, which means reduced risk of heart attack and stroke. Nevertheless, injuries can occur, both as a direct result of cycling and in accidents.

### Cycling injury risk

Only seven per cent of transport-related cycling injuries involve collisions with other vehicles. You are much more likely to hurt yourself by falling off your bike or hitting a stationary object.

Between 1996 and 2005, 60 per cent of hospital admissions and half of emergency department presentations for bicycling injury in Victoria were children aged five to 14 years.

### Obey road rules when cycling

Cycling courteously and following the road rules improves your safety and that of others. Especially remember:

- Don't ride on the wrong side of the road or coast through red lights.
- Flag your intention to turn by hand signalling.
- When turning right, perform a hook turn from the left side of the road.
- Ride in a predictable way, about one metre out from parked cars.
- Ride in single file in heavy traffic (even though cyclists are permitted to ride two abreast).
- When riding on shared paths or rail trails where people are walking, use your bell to alert them.
- When riding two-abreast, make sure both riders are no more than 1.5 metres apart.
- Do not ride two abreast on multi-lane roads.
- If practical, you must always use a bike line if one is available in the direction you are travelling.
- You cannot ride on urban freeways. Some rural freeways do allow bicycle riding. However, always look for and obey signage.

### **Maximise your visibility on a bike**

Suggestions include:

- Wear brightly coloured clothing. It is harder for motorists to see you if you are dressed in dark or dull colours.
- Have lights fitted to your bike, front and back, for riding in all conditions. The law in Victoria requires a steady or flashing white light on the front, steady or flashing red light on the back and red reflector on the back. The lights must be visible from 200 metres and the reflector from 50 metres.
- Reflective garments, including reflectors fitted to the back of your shoes, will increase your visibility at night.

### **Cycling safety tips**

Reduce your risk of accidental injury while cycling by:

- assuming that car drivers have not seen you. Make eye contact with car drivers when negotiating turns or intersections
- braking smoothly. Hard braking is a common cause of cycling injuries, as it can cause the brakes to lock and the rider to fall over the handlebars. Children need careful instruction on how to brake safely. Use your back brakes in combination with your front brakes to minimise your weight going forward over the handlebars.
- not wearing headphones while cycling. You need to hear what's going on around you
- having your bicycle professionally serviced at least once every year
- regularly checking your bike (once a week if you're a frequent rider) to make sure it is in good repair. Check the tyres, bearings, gears, nuts and bolts, and lubricate the chain and cables. If you're not sure how to do this, consult your local bike shop.

### **Prevention of cycling injuries**

Incorrect riding posture and demanding too much of your body can lead to a variety of cycling-related injuries.

#### **Cycling and lower back pain**

The back is a weak link for many riders. Cyclists usually develop strong leg muscles, but don't always have the torso strength to support and resist the force from the legs. This can make your back work too hard and spasm, causing rapid fatigue.

To prevent or remedy lower back pain, get into the habit of keeping your back straight, whether you are standing or riding. This will ease the pain and also improve your riding.

#### **Cycling and numb toes**

Numbness (or 'burning feet') is most commonly caused by nerves being squashed. This is usually due to tight shoes, road vibration or too much climbing (which puts continuous pressure on the feet).

To prevent or reduce numb toes:

- Adjust your shoes, or the straps or cleats on your cycling shoe.
- Make sure your feet are straight when you clip into the pedals (if you use cleats).

- Remove any irregular seams, straps or buckles from your shoe that may be pressing against your foot.

### **Cycling and hand injuries**

The earliest sign of a hand injury is tingling or numbness in the palm or fingers. To prevent or reduce hand injuries:

- Observe how you are gripping the handlebars. The grip should be firm yet relaxed.
- Change hand positions frequently.
- Remember to keep your wrist straight.
- Try padded gloves or handlebar tape to reduce the vibration.

Children aged 10 years or younger are at risk of trapping their fingers in the moving parts of a bicycle, such as the chain. Children should be warned about these hazards. Consider buying your child a bicycle with a chain guard.

### **Cycling and shoulder pain**

Injury to the shoulder usually occurs during longer rides. It is mainly caused by placing too much weight on the hands, and riding with straight elbows.

To prevent or remedy shoulder pain, keep the elbows slightly flexed to stop 'road shock' transferring to the arms and upper body.

### **Cycling and knee injuries**

Knee injuries are generally due to overuse, and occur when a cyclist is riding too much or too fast. To prevent or remedy knee injuries:

- Slowly build up your strength through training to minimise strain on the knees, and reduce the amount of hard training or hill work.
- Pedalling in high gear for a long time will stress your knee joints. Switch to lower gears whenever you can.
- If your saddle is too high or too low, stress is placed on the knees. Adjust your saddle's height so you have almost straightened your knee with the ball of your foot over the pedal axle at its lowest position. Seek the advice of a professional bike fitter to determine the appropriate height for your saddle.

### **General cycling health and safety**

Suggestions:

- Let someone know your intended route and what time you think you'll be back.
- Wear sunscreen on skin not covered by clothing.
- Take a drink with you to reduce the risk of dehydration.
- Pack identification, money and a mobile phone in case of emergencies.
- General comfort is important because it allows you to concentrate on the road. Make sure your saddle is comfortable. Consider wearing cycling shorts on longer rides, as they reduce the risk of skin irritation because the material doesn't bunch and rub against your skin.
- Make sure your bicycle is appropriate for your height, weight and other needs. Ask staff at your bike shop for help when choosing a new bicycle.

### **Where to get help**

- In an emergency, always call triple zero (000)
- Your doctor
- Smartplay Victoria Tel. (03) 9674 8777
- Bicycle Network Victoria Tel. (03) 8376 8888
- VicRoads Tel. 13 11 71

### **Things to remember**

- Common causes of cycling-related injuries include incorrect riding postures and demanding too much of your body.
- Only seven per cent of cycling injuries involve collisions with other vehicles – you are much more likely to hurt

yourself by falling off your bike or hitting a stationary object.

- Children, particularly those of primary school age, are most at risk of bicycling injury.

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