

Safety Fact Sheet

Bicycles and Helmets



Description:

Bicycles are two wheeled vehicles upon which people may be seated, and move along using human power on foot pedals.

Helmets are safety devices worn by the riders to protect the head in the event of a crash or impact. Helmets can prevent or lessen the severity of brain injury that can result from a crash. They are typically made of rigid crushable foam covered by a thin layer of plastic and are held to the head by the use of flexible straps and hardware. Helmets work by absorbing some of the energy from a crash and spreading it over a larger area for a slightly longer time.

Potential Hazards:

Falls

- Children may lose control of the bicycle and fall off the vehicle while trying to control it.
- Children may also lose control as a result of external factors such as the appearance of a sudden/unexpected obstacle in their riding path. As they swerve to avoid the obstacle, they may crash into yet another object vehicle or a fixed object and as a result, sustain a fall.

Cuts, bruises and friction burns

- Children may sustain cuts, bruises and/or friction burns as a result of a crash.

Injuries:

Cycling is not only a popular form of transport, but it is also a healthy and enjoyable outdoor activity for children. As with most activities, cycling has the potential to cause injury to the rider, with head injuries being the most common cause of serious disability and fatality. During the 2002 to 2003 financial year, 2,493 people in NSW were admitted to hospital for injuries sustained while cycling.¹ About 40% of these hospitalisations involved children aged 5 to 14 years.¹

In 1991, the bicycle helmet legislation was introduced in NSW making it mandatory for all riders to wear helmets while riding a bicycle. The rate of helmet wearing in those under 16 years of age prior to legislation was 11% with a rise to 83% in 1993 following compulsory helmet wearing laws.²

Law or Australian Standard:

Bicycles:

It is recommended that manufacturers of bicycles follow the Australian Standard (AS/NZS 1927:1998). This is a voluntary standard that manufacturers are not required to meet, however The Children's Hospital at Westmead suggests that you purchase a bicycle that meets this standard. If you choose to purchase a bicycle that does not meet the Australian Standard, please keep in mind the safety reminders below:

Helmets:

- The law states that all riders of bicycles must wear a helmet.
- The law, (*Fair Trading (General) Regulation 2002*. Gazette No. 135, 30/8/02.), states that all helmets for pedal cyclists sold in Australia must comply with the Australian Standard (AS 2063 - 1996) or with the 1995 Standard for *Protective Headgear for Use with Bicycles* published by the Snell Memorial Foundation.

Riding:

- The law states that children under the age of 12 and accompanying older riders may use the footpath for cycling, excluding footpaths with signs prohibiting cycling. Riders are to keep to the left and give way to pedestrians.

Safety Fact Sheet

Bicycles and Helmets



- The law also states that children 12 years and older must not use the footpaths for cycling unless there is signage to suggest a shared footpath. Cyclists should ride on the road and keep to the left, while using marked bicycle lanes when possible. Furthermore, each bicycle must be fitted with a working brake and a bell and may be fitted with power assistance up to 200W. If a bicycle is to be used at night, it must have front and rear lights and a rear reflector.

Remember:

- A bicycle becomes a safe vehicle for your child only when it is the right size for your child. Here are some notable points:
 - When your child is seated with hands on the handlebar, he/she must be able to place both feet flat on the ground.
 - When he/she is standing above the horizontal crossbar with both feet flat on the ground, the distance between the bar and your child's crotch should be 3 cm.
 - Make sure that while in the riding position, your child can comfortably grasp the brakes and apply the pressure needed to stop the bicycle.
- Regularly maintain your child's bicycle, ensuring that the wheels are properly inflated and in good order. Test the brakes, gears, chain, pedals, lights, reflectors and like parts. You may pick up a bicycle maintenance poster from your local RTA office or log onto www.rta.com.au to order a free copy.
- If you are obtaining a second-hand bicycle for your child, be sure to check all parts of the vehicle prior to your child riding it.
- It is the law to wear a Standards Australia approved helmet when riding a bicycle. At the time of your bicycle purchase, also remember to get your child fitted for a helmet. Helmets come in a variety of styles and sizes to suit individuals.
- Helmets should be positioned on the head to sit low on the forehead and parallel to the ground when the head is held upright. It should not be pulled low over the forehead or tilted back on the crown. Once adjusted by installation or removal of inside pads, the strap should fit comfortably with very little movement either side (tight with room for only 2 fingers to be inserted between the strap and the chin).
- Replace your child's helmet if it sustains a substantial blow or is involved in a crash resulting in scratches to the shell. It is also safe practice to replace your child's helmet every five years (or sooner if the manufacturer recommends it), even if it has not been involved in a crash.
- Avoid the use of second-hand helmets, especially if you are unsure of the age of the helmet or if it has been involved in a previous crash.
- Make sure your child wears covered shoes and comfortable, fitting clothing to avoid gear getting caught in the chain or wheels of the bicycle. Light coloured or reflective clothing is preferred, especially at night, so that your child may be easily spotted by an approaching vehicle. The use of lights is recommended in the night time to increase visibility.

¹ Population Health Division. The health of the people of New South Wales - Report of the NSW Chief Health Officer. Sydney: NSW Department of Health, 2004.

² NSW Roads and Traffic Authority. The Current State of Bicycle Riding.

This fact sheet is for educational purposes only.

This document was reviewed on 22nd January 2009.

kids health
the children's hospital at Westmead
Child Health Promotion Unit