

# fact sheet

# Christmas Wheels

## Small Wheels

Wheels are a perennial favourite as gifts to children at Christmas. A few simple guidelines will reduce the risk that the happy child on Christmas morning isn't being photographed with broken limbs in hospital on Boxing Day as happened to at least one child last year.

Tricycles, bicycles, skateboards, in-line skates ("roller blades") and micro-scooters are the most common wheeled gifts.

### Tricycles:

Tricycles need to be the right size for the child and need to be stable. The child will need to have a safe area in which to play – away from slopes, stairs and changes in level.



### Bicycle:

Most bicycle injuries are simply the result of the child losing control of the bike and falling down (about 85%). A bike must be the right size for a child to have good control. They should be able to touch the ground with one foot while seated in the saddle. Brakes, lights, reflectors, bells and visibility devices (reflective tape or vests, flags etc) are important parts of normal bike equipment. They are critical to safety.

### Skateboards and Roller-Blades:

The most common injuries result from falls. There have been serious injuries associated with running into vehicles and pedestrians. The roller blades need to be a comfortable, firm fit on the child's feet.

### Micro-Scooters:

Falls are the most common injuries so far with these new products. There have been reports of injuries associated with collisions with vehicles and pedestrians.

## Safety Equipment for Small Wheels

### Helmets

Helmets are the most important piece of safety equipment. They protect a child from the most dangerous injury - to the head. Studies of cyclists show that a helmet reduces the risk of brain injury by around 90%. To be effective the helmet has to be **well fitting** - test this by putting it on and pushing gently with the heel of the hand against the front of the helmet. If it moves around easily then it doesn't fit properly. To be effective a helmet also has to be used – parents need to make it clear to children that helmets are to be **used every time**.

### Wrist guards

Wrist guards are designed to strengthen the wrist to reduce the risk of serious damage or broken bones. A child losing their balance and putting out their hand to break their fall is a common occurrence, and broken wrists or arms are the most frequent serious injury among skateboard riders, roller-bladders and now for micro scooter users. Serious injury can happen quickly and easily.

### Knee & elbow guards

Knee & elbow guards are designed to protect vulnerable points that research has shown are common points of contact when children fall. They are very important for skateboarding – boarders commonly landing on their knees; for roller-bladders who land on knees and elbows; and for scooter riders.

### Visibility

Items that increase visibility to road users, to pedestrians and to vehicles are vital to child safety. Bright coloured clothing, reflective tape, reflectors, flashing lights and visibility flags are all useful in this regard.

Young children and new users should not be using these wheeled devices in poor light or near traffic.

## Safe Learning, Safe Use

- For wheeled vehicles such as bicycles, skateboards and roller-blades, young children and those learning are most at risk and make up a high proportion of injuries.

- On the basis of the injuries to date it appears this is also true for micro-scooters.

- It is important that children learn to use the products in safe environments.

- Learning and practice in braking and steering are most important.

- Safe use means away from:

- Traffic
- Uneven surfaces
- Slopes, especially steep slopes
- Pedestrians and other users

- Road authorities advise that child cyclists should not cycle unaccompanied until age 9 or 10.

- This advice applies equally to the other wheeled products.



# Small Wheels and Safety

## Micro-Scooters

Micro-scooters are the new product in the list of wheeled products.

Some simple details:

### What Are They?

The products are fold up scooters with small wheels around 10 cm. The first of these products was the "razor" which has 10 cm wheels, a maximum height of 90 cm and weighs 3 kgs.

Wide ranges of other products are now on the market. While the original can cost \$300 the cheaper products can be as little as \$50.

### Child Injuries

The number of injuries is directly related to the popularity of the scooters. In America 4,000 children are being injured a month.

In Australia the numbers have not reached these levels but there have been more children injured on scooters in the last six months than there were in the previous four years.

Two out of three of those injured are under 14 years of age.

The most common serious injuries are fractures to the arm/wrist, usually as the rider puts out a hand as they fall. Injuries to the face and head are less frequent but are potentially more serious.

*Example: A six-year-old girl went over a crack in the pavement, lost control and fell. She fell onto the end of the steering handle, which was driven through her cheek. She survived and will undergo plastic surgery but is likely to have facial scarring for life.*

## Design Features Associated With Risk

The **small wheels and low clearance** make the rider more likely to lose control on an uneven surface. The older style scooters, with larger wheels and pneumatic rubber tyres are more stable.

The **braking system** is intended to work by downward pressure applying friction to the back wheel. This often does not work at all, especially in cheaper models, and becomes less effective with age. Friction applied to a small wheel using a curved surface is unlikely to be very efficient. Many young people tell Kidsafe that their brakes are "almost useless".

**Folding mechanisms and construction.** These can be well made but often are not and Kidsafe is concerned that they may fold under pressure or after some wear. Some mechanisms can only be tightened using fingers. Some wheels are poorly attached.



### Sharp objects in construction:

Some scooters have sharp edges in construction as shown in the previous example.

Kidsafe is concerned that the **combination of speed, poor braking mechanism** and the **balance required** make it difficult for new riders to manage. This is similar to the experience with other products such as "roller-blades".

## What You Can Do

- **Avoid poorly made models** - check the brakes and the locking mechanisms.
- **Buy the safety equipment** - helmets and wrist guards are the key mechanism to avoid serious injury.
- **Help your child learn** - a safe place to practice and help to learn will give them the best start.
- **Safe Use** - these products need to be used away from traffic and pedestrians and away from steep slopes.

## Safety is Simple

Overall the safety messages for children and small wheels are simple.

1. **The right size, the right product.** Selecting the type of product that is appropriate for the child's development and motor skills and making sure the product is the right size will make sure the gift is both a challenge and fun.
2. **Safety Equipment** works and will reduce the risk your child will spend the days after Christmas in hospital or on crutches.
3. **A Safe Place to Learn.** Learners have the highest rate of injury. Ensuring your child has a safe place to learn to use their gift gives them time to master it.
4. **Used in a Safe Way.** Set the rules about where and how the products are used.

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