Skateboards and non-motorised kick scooters provide children with a valuable form of exercise and transport. Learning to ride a skateboard or scooter can be an important part of play, risk taking and development. The rise in popularity of, and subsequent exposure to, skateboarding and scooting has been coupled with a marked increase in skateboard and scooter related injury. There are many reasons for these injuries, including the lack of use of protective safety equipment, environmental planning and design that is not focused on child pedestrian safety, scooter/skateboard and skatepark design, user developmental maturity and riding skill and the policy and legislative context. Importantly, many of these factors can be addressed, enabling injuries to be prevented, or their severity reduced.

Skateboard and Scooter Injuries in New Zealand¹:

In New Zealand between 2007-2011:

- 725 children were hospitalised with skateboard related injuries.
- 158 children were hospitalised with scooter related injuries.
- Skateboard related injuries were most common for Māori and European males aged 10-14 years.
- Scooter related injuries were most common for European males aged 10-14 years, and European males and females aged 5-9 years.
- Falling was the most common cause of skateboard and scooter related injury.
- Fractures were the main injury incurred. Other injuries included internal organ injury, open wounds and superficial injuries including contusion.

For children aged 0-14 years, there were 697 Accident Compensation Corporation (ACC) scooter-related injury claims made in 2008, and 6474 claims in 2012.* (See figure 1).

[Graph showing number of scooter-related ACC injury claims, 2008-2012]

International evidence

- Internationally, child skateboard-related injuries are more common for boys aged between 10-14 years,² ⁷ and scooter-related more common for girls and boys aged 9-11 years.² ³ ⁸ ¹²
- The most common places of injury cited for skateboards are roads and recreational areas.⁶ ¹³ ¹⁴
- Scooter injuries are reported to occur in homes, public and private roads, school grounds and sports fields.⁵ ⁹ ¹⁰ ¹³ ¹⁶
- Falls are the most common cause of injury for both skateboard and scooter related incidents. Although they are rare, collisions involving motor vehicles and skateboard and scooter riders result in serious injuries.⁶ ¹¹ ¹⁷ ¹⁸
- Fractures to the upper limbs, and head and facial injuries are the most common injuries incurred for both skateboard and scooter riders.² ³ ⁶ ¹⁵
- Skateboard riders tend to have more severe injuries compared with roller skaters and in-line skaters.⁶

* Factors such as low reporting of an emerging injury issue, and possible reporting of the injury in alternative categories, must be taken into consideration when interpreting injury claim trends.
Interventions to reduce injuries to child skateboarders and scooter riders

Safekids New Zealand recommends that the following interventions are supported to reduce the risk of injury and death to child skateboarders and scooter riders.

1. Helmets

Appropriately fitted helmets save lives and reduce the severity of brain injury and facial injury.\textsuperscript{19} Wearing a correctly fitted helmet when skateboarding or scooting will help to reduce the number of head and facial injuries experienced by children.\textsuperscript{5, 20} Safekids New Zealand recommends that all children wear an appropriately fitted helmet that meet an approved safety standard when riding a skateboard or scooter, whether they are commuting to school, riding recreationally or attempting tricks. Safekids New Zealand encourages schools to adopt a policy that children riding skateboards or scooters to school must wear a helmet. Members of schools and other community groups are encouraged to role model helmet wearing when skateboarding or scooting, and to advocate for the use of helmets in their communities. Informed by legislative action internationally, Safekids New Zealand recommends the development of helmet regulation for skateboards and scooters.

2. Protective Equipment

Wearing elbow and knee pads when skateboarding or scooting can prevent or reduce the severity of injury to the upper and lower limbs.\textsuperscript{5, 21} Safekids New Zealand recommends that all children wear elbow and knee pads when riding a skateboard or scooter, whether they are commuting to school, riding recreationally or attempting tricks. Safekids New Zealand also recommends that caregivers ensure children wear elbow and knee pads. Members of schools and other community groups are encouraged to role model elbow and knee pad use when skateboarding or scooting, and to advocate for the use of elbow and knee pads for child skateboarders and scooter riders in their communities.

Wearing wrist guards when skateboarding can prevent or reduce the severity of injury to the upper limbs.\textsuperscript{20, 21} Safekids New Zealand recommends that all children wear wrist guards when riding a skateboard, and that caregivers ensure children wear wrist guards. Members of schools and other community groups are encouraged to role model wrist guard use when skateboarding, and to advocate for the use of wrist guards for child skateboarders in their communities.

3. Skate park design

Skate parks enable children to be separated from vehicles and other pedestrians, enable closer caregiver supervision, and offer an environment where use of helmets and other safety equipment can be more easily regulated.\textsuperscript{5} Ensuring that skate park design incorporates best practice design principles, including injury prevention, while at the same time enabling children to engage in risk taking behaviours, is important.\textsuperscript{22} Safekids New Zealand recommends that an Australian/New Zealand voluntary standard for skate park design is developed, which incorporates design features that enable safe use of a variety of devices, including skateboards, scooters and other small wheeled recreational devices. A skate park standard could also include provision of areas for caregivers to supervise children, and highlight the need for careful planning regarding the geographical placement of the park to ensure safe access for children. Safekids New Zealand recommends that New Zealand research is undertaken into the design, placement and community health and social impact of skate parks. Safekids New Zealand encourages schools, community groups and other organisations to advocate for a voluntary skate park standard for child skateboarders and scooter riders in their communities.

4. Safe child pedestrian space

To reduce the risk of skateboard and scooter related injury, pedestrian spaces should be safe for children.\textsuperscript{23, 24} Safekids New Zealand recommends that areas where children skateboard and scoot regularly, such as school journey routes, should be prioritised for engineering actions to improve child safety. It is recommended that engineering actions on school routes should include installation of pedestrian crossings suitable for children, improvements and on-going maintenance of footpaths, greater driveway visibility, 30 kph lower speed zones, and traffic calming solutions such as self-explaining Roads.\textsuperscript{24, 25} To promote equity, Safekids New Zealand recommends that engineering actions are prioritised to areas with high Māori and Pacific child populations. Communities are encouraged to advocate for actions to improve the safety of child pedestrian space for skateboard and scooter users.

The most severe injuries experienced by children using skateboards and scooters involve motor vehicles.\textsuperscript{11} Members of schools and other community groups are encouraged to enhance awareness of pedestrian space as the safest place to ride skateboards and scooters, and to role model the appropriate use of skateboards and scooters in pedestrian space.

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**Skateboard and Scooter Safety Key Points**

- Always wear a correctly fitting helmet that meets an approved safety standard
- Always wear elbow and knee pads
- Always wear wrist guards when skateboarding
- Actively supervise children riding skateboards and scooters
- Skateboard and scoot carefully in pedestrian areas, and use pedestrian crossings
Suggested citation

References
19. Thompson, D.C., Rivara, F.P. and Thompson, R., "Helmet for preventing head and facial injuries in bicyclists" *Cochrane Database of Systematic Reviews*, 2009, 1.
This factsheet was produced by Safekids Aotearoa, 2013

This Safekids New Zealand factsheet on skateboard and scooter injury prevention was made possible thanks to Jetstar’s Flying Start Programme grant.

Photo shows Jetstar’s Captain Richard Falkner, Safekids Director Ann Weaver, Jetstar Ambassador Steve Price and children from Vauxhall Primary School.