



Safekids CAMPAIGN

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Factsheet

CHILD CYCLIST INJURY

New Zealand child cyclists may be injured or killed in a variety of locations and situations. Younger children are more often injured on their cycles at home. For older children, although there are significant numbers of children injured at home, there are even greater numbers injured on the streets and highways, in sports and athletics areas and other locations away from home. A collision between a cyclist and a motor vehicle is more likely to result in death and serious injury than an incident when a motor vehicle is not involved.

Key facts*

- 5 children die from a cycle-related injury in New Zealand every year, on average. A further 540 are hospitalised.¹
- Cycle-related injuries account for around 6% of all child unintentional injury hospitalisations.¹
- 26% of all deaths and hospitalisations of all cyclists (ages 0 – 85+) are to children in the 10 - 14 age group.¹
- Children in the 5 - 14 year age group have the highest incidence of cycle related injuries. This may be due to children of this age spending more time at play activities while on their bicycles.

Children aged;

- 0 - 4 years – 247 injured
- 5 - 9 years – 1009 injured
- 10 - 14 years – 1443 injured¹

- In one five year period (1999 to 2003) cyclist crashes (0 to 14 years) involving motor vehicles numbered 250 injuries and 22 deaths. During the same time period, cycle crashes that did not involve a motor vehicle resulted in the hospital admissions of 2,528 child cyclists (0 to 14), and one death.¹

Cycle Helmets

Always wear your cycle helmet when you ride your bike.

Wearing a cycle helmet reduces the risk of head injury by 85%, of brain injury by 88% and of severe brain injury by at least 75%. The protective effect of helmets for facial injury is 65% for the upper and mid facial regions.²

* NZHIS Data in this section relates to both traffic and non-traffic child cyclist injury.

Types of Injury - Snapshot from Starship Children's Health admissions May 2006 - January 2007.³

During this period 59 children were admitted to Starship with cycle-related injuries. These children had sustained a total of 120 injuries.

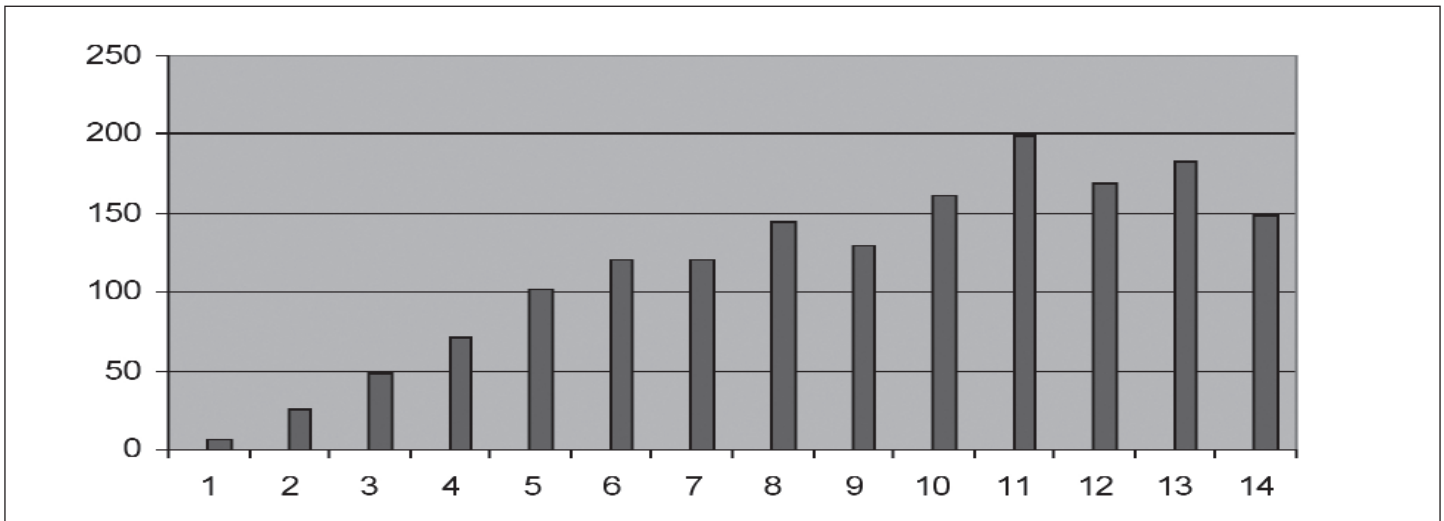
The most common child cyclist injury was upper limb fractures (36%), followed by lower limb fractures (18%). Injuries to the face and neck (14%) included lacerations, fractures and tongue and mouth injuries.

Head injuries (12%) included skull fractures, concussions, intracranial injury and scalp lacerations. Abdominal injuries (9%) included spleen and liver injuries that were often caused by handlebars and pedals. Other injuries included skin lacerations and lung injury.

Gender and Age

- More than twice as many boys are hospitalised with a cycle-related injury than girls. 2227 boys were injured in the five year period 2001 - 2005, compared with 913 girls.¹
- Nearly five times as many boys than girls are killed when cycling. In one 10-year period (1993-2002), 52 children were killed; of these 43 were boys and 9 were girls.¹
- The New Zealand Police and Land Transport New Zealand recommend children under 10 years old bike on the road only when accompanied by a competent adult rider. This age is only a recommendation and will depend on individual circumstances relating to the skill of the rider, their road rule knowledge and the traffic environment.
- 11 year olds have the highest number of cycle related hospitalisations (Figure 1).⁴

Figure 1: Number of child cycle injuries by age: 2001 – 2003 ⁴



Location

- Overall the most common location for cycle injury is on the road and the second most common location is at home.
- During the five year period from 2001 – 2005:
 - Of children aged 0 - 4 years, 65 % were injured at home and 34% were injured on the street and highway and in other locations
 - Of children aged 5 - 9 years, 31% were injured at home and 48% were injured on the street, 14% in other locations and 7% in sports and athletics areas
 - Of children aged 10 - 14 years, 15% were injured at home, 59% were injured on the street and highway, 15% in other locations and 12% in sports and athletics areas ⁴

Ethnicity ^{5,6}

Child cycle injury affects children of all ethnicities. Pasifika and Asian children appear to be injured less frequently than might be expected from their proportion of the population.

Pasifika children make up 11% of the child population but account for 7% of the cycle injury hospitalisations. Asians make up 9% of the child population but account for 3% of cycle injury hospitalisations.

Maori and European children appear very slightly more frequently than their proportion of the population.

Tamariki Maori make up 23% of the child population and account for 25% of cycle injury hospitalisations. European children make up approximately 60% of the child population and account for 62% of cycle injury hospitalisations.

Child cyclist injuries and traffic ⁷

During 2001 - 2005 there was a total of 928 Police-reported injury crashes for child cyclists ages 5 – 14 years. All these crashes involved a motor vehicle and occurred on the road. Analysis of the crash data reveals:

- The number of cycling crashes where a child was injured has been around 170 per year since 2004.
- During 2001 – 2005, 11 child cyclists died and 150 received serious injuries (including fractures, head injuries and other injuries often requiring hospitalisation) and 786 received minor injuries (e.g. cuts and bruises not always requiring medical attention).
- Crashes peaked between 3pm and 4pm (23%) and 8am and 9am (20%).
- 25% of crashes occurred in the months of February / March, the least crashes occurred in July.
- An overwhelming 90% of crashes happened in a 50kph speed zone.
- Just over 92% occurred in daylight conditions.
- Just under half (47%) of crashes happened at intersections, another 29% at driveways.
- Almost 86% happened on a “flat” road.
- 90% of traffic injuries are urban approximately half of fatalities are rural.

References:

- 1 National Injury Query System at www.otago.ac.nz/ipru/stats
- 2 Cochrane Review accessed February 2007
http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/CD001855/pdf_fs.html
- 3 Starship Children's Health, unpublished data (May 2006 – January 2007)
- 4 Injury Prevention Research Unit, unpublished NZHIS Morbidity and Mortality data (20001 – 2003)

- 5 Data on ethnicity supplied by Statistics NZ: Census 2006
- 6 Statistical Standard for Ethnicity 2005. Statistics New Zealand at www.stats.govt.nz
- 7 Crash Analysis System (CAS) Land Transport NZ