

FACTSHEET: CHILD HOOD CUTTING AND PIERCING INJURY 2009

Overview

Most people consider having a cut or graze is a normal part of growing up. Cutting and piercing injuries are a common cause of injury for children and despite being painful, such injuries are usually simply treated.

However, every now and then cutting and piercing injuries result in life threatening emergencies. More effective first aid treatment and emergency service response has reduced the numbers of fatalities, yet these events can still result in life-long physical and mental scars

In New Zealand *approximately one child a year dies* from an unintentional cutting or piercing injury. Severe and fatal injuries happen when children fall through glass windows or doors that are not fitted with safety glass. Children also receive severe foot or leg injuries after being run over by lawn mowers.

Although some incidents seem minor, such as a puncture wound from a nail, they often require hospital treatment to avoid complications. This might involve surgery to clean the wound, sutures to repair damaged tissue and antibiotics to prevent infection. The costs of these treatments create a huge and avoidable burden on our health services.

Cutting and piercing injury facts

- Cutting and piercing injury made up 6.3% of all unintentional childhood injury hospitalisations during 2000 to 2004.¹
- There were seven deaths of children aged 0 to 14 years, from cutting and piercing injury during the five year period from 2000 to 2004.²
- Every year in New Zealand approximately 556 children (2002 2006) are injured severely enough from a cut or puncture wound to be admitted to hospital overnight or longer.³
- For children aged 5 to 9 years, cutting injuries are the second leading cause of a hospitalisation for unintentional injury.⁴
- Every year the New Zealand Accident Compensation Corporation (ACC) provides payment for approximately27,097 doctor (or accident and emergency clinic) visits for a cutting and piercing injury. This equates to 521 children seeking medical treatment for this type of injury, each week.⁵
- The cost of treating childhood cutting and piercing injury is high. Over five years (2003 to 2007) ACC payments to families for treatment of child cutting and piercing injuries (excluding admissions to hospital) are estimated to cost over \$11.7 million dollars a year.⁶

Who is injured and where?

Twice as many boys are admitted for cutting and piercing injury than girls, with 926 girls and 1855 boys admitted to hospitals in New Zealand from 2002 to 2006.⁷

Children aged 10 to 14 years have the highest numbers of hospital admissions for cutting and piercing injury, compared to children in either of the other age groups (Figure one).



Source: NZHIS Data supplied to Safekids NZ by the Injury Prevention Research Unit (IPRU), University of Otago in 2007

Hospital admission data (NZHIS) also shows cutting and piercing injuries are distributed across children of all ethnicities.

Cutting and piercing injuries happen most frequently at home, followed by injuries over a wide range of places where children are 'out and about'. Figure two shows the full range of the most frequent locations of cutting and piercing injuries that resulted in hospitalisation



Source: NZHIS Data supplied to Safekids NZ by the Injury Prevention Research Unit (IPRU), University of Otago in 2007.

Cutting and piercing admissions to hospital

Hospital records of 138 children admitted to Starship Children's Health (2006-2008)8 for cutting and piercing injury showed that most children stayed one night, the average length of stay was for two nights, with twenty four children (17%) staying three nights or longer and one child for 40 nights. This is similar to an Australian study, which shows similar lengths of stay.⁹

Children receive cutting or piercing injuries from a range of causes. Of this group of 138 children who were admitted to Starship hospital;

- 54% (75) had received a foot injury after standing on something sharp;
- 6.5% (9) were injured after falling through a glass window or door, and
- 6.5% (9) fell onto a sharp knife.

Of all the children in this group who stood on something sharp, twenty (26%) could identify that they stood on broken glass.

Three children (aged 12, 14 and 3 years old) received injuries from a running lawn mower; seven received a piercing injury from a phoenix palm spike, bamboo or cacti; seven received injuries while climbing fences and two children placed their fingers into food blenders.

What is Safety Glass?

Hospital records show children are injured when they fall against glass that has shattered and cut them. This includes glass in windows and doors.¹⁰

Safety glass is glass that has been treated so that it will be unlikely to cause harm when it is cracked or broken. Safety glass can be used in areas where falls are possible, for example, ranch sliders, shower enclosures, or around stairs.¹¹

Government building rules require safety glass is used in places where an injury might occur should the glass be broken.

The Building Code has a clause (Clause F2 Hazardous Building Materials) that outlines where and how safety glass must be used in new buildings. The New Zealand Standard 4223:1999 also gives guidance about minimum requirements for glazing in buildings where people risk injury by falling onto glass.

Tetanus

Tetanus bacteria may be found anywhere, but it is especially prevalent in soil and animal waste. If a person has a cut that comes into contact with the earth, they could be exposed to tetanus. People can catch tetanus from wounds as small as a prick from a rose thorn.

One of the earliest signs of tetanus is stiffening of the jaw muscles, which is why tetanus is often referred to as lockjaw. Recovery from tetanus may take months. About 11% of people who get tetanus die from the disease.

Tetanus vaccine is given at age 6 weeks, 3 months, 5 months with boosters at 4 years and 11 years of age. Adult boosters are given at 45 and 65 years of age.

For more information contact the Immunisation Advisory Centre 0800 IMMUNE (466863) or www.immune.org.nz

Conclusion

Avoiding childhood cutting and piercing injuries is not about preventing children having fun, or being out and about. It is about taking sensible steps to prevent and reduce avoidable injures.

These might include ensuring the effective removal of broken glass from public spaces; encouraging children to wear footwear; the increased use of safety glass in windows and doors; increased awareness of the dangers of equipment such as lawn mowers and kitchen equipment; and keeping fences and playgrounds in good repair.

- Gulliver, PJ & JC Simpson Fact Sheet 40, Child injury: deaths and hospitalisations. April 2007, Injury Prevention Research Unit (IPRU), University of Otago.
- New Zealand Health Information Service (NZHIS) data supplied to Safekids NZ by the Injury Prevention Research Unit (IPRU), University of Otago, 2007.
- 9. NZHIS data supplied to Safekids NZ by the Injury Prevention Research Unit (IPRU), University of Otago, 2007.
- Gulliver, PJ & JC Simpson Fact Sheet 39, Causes of injury by age. April 2007, Injury Prevention Research Unit (IPRU) University of Otago.
- 11. Accident Compensation Corporation (ACC) data provided to Safekids NZ, 2008







- 1. Accident Compensation Corporation (ACC) data provided to Safekids NZ, 2008.
- 2. NZHIS data supplied to Safekids NZ by the Injury Prevention Research Unit (IPRU); University of Otago, 2007.
- 3. Starship Trauma Unit Data, supplied to Safekids NZ, 2008.
- 4. *Hazard.* Edition 52, Spring 2002, Victorian Injury Surveillance System (VISAR), Monash University Accident Research Center.
- 5. Starship Trauma Service Data, supplied to Safekids NZ, 2008.
- Glazing in Buildings Part 3 Human Impact Safety Requirements NZS 4223: Part 3: 1999 (Incorporating Amendment No 1). New Zealand Standard, Standards New Zealand.

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Safekids Aotearoa's mission is to reduce the incidence and severity of unintentional injuries to children in New Zealand ages 0-14 years.