

Kidsafe WA

Kidsafe WA is the leading independent not-for-profit organisation dedicated to promoting safety and preventing childhood injuries and accidents in Western Australia. Injuries are the leading cause of death in Australian children aged one to fourteen, accounting for nearly half of all deaths in this age group. More children die of injury than die of cancer, asthma and infectious diseases combined. Many of these deaths and injuries can be prevented. Kidsafe WA works in the community to educate and inform parents and children on staying safe at home, at play and on the road.

Perth Children's Hospital Injury Surveillance System

The data used in this report was provided by Perth Children's Hospital (PCH). PCH is the sole tertiary paediatric hospital in Western Australia, acting as a key referral source for childhood injury and disease within the state. The PCH Injury Surveillance System is an electronic database that involves the systematic collection of all emergency department (ED) injury data. Data is collected by triage nurses who initially assess the child presenting to the ED; the data is then coded and validated by an Injury Surveillance Officer. This bulletin provides a summary of the Injury Surveillance System data collected at PCH ED between 2013 and 2018 relating to gender.

Injuries by Gender

A snapshot of injuries to children aged 0 to 15 years by gender

- Between 2013 and 2018 there was a total of **93,581** injury presentations to PCH ED for children between 0 and 15 years of age.
- **Males** are at greatest risk of injury, representing 56.7% (n=53,086) of presentations. **Females** make up the remaining 43.3% (n=40,494) presentations.
- **One year olds** recorded the greatest number of injuries for both genders, accounting for 9.6% (n=8,951) of total injury presentations.
- **Unintentional injuries** account for 95.9% of injuries to females (n=38,835) and 98.6% of injuries to males (n=52,325).
- **Sporting activities** are involved in 26.0% of male injuries (n=13,823) and 19.7% of female injuries (n=7,971).
- **Trampolining** was the most common sporting activity associated with injury in females (17.1%, n=1,364).
- **Australian Rules Football** was the most common sporting activity associated with injury in males (17.4%, n=2,403).



Partner:



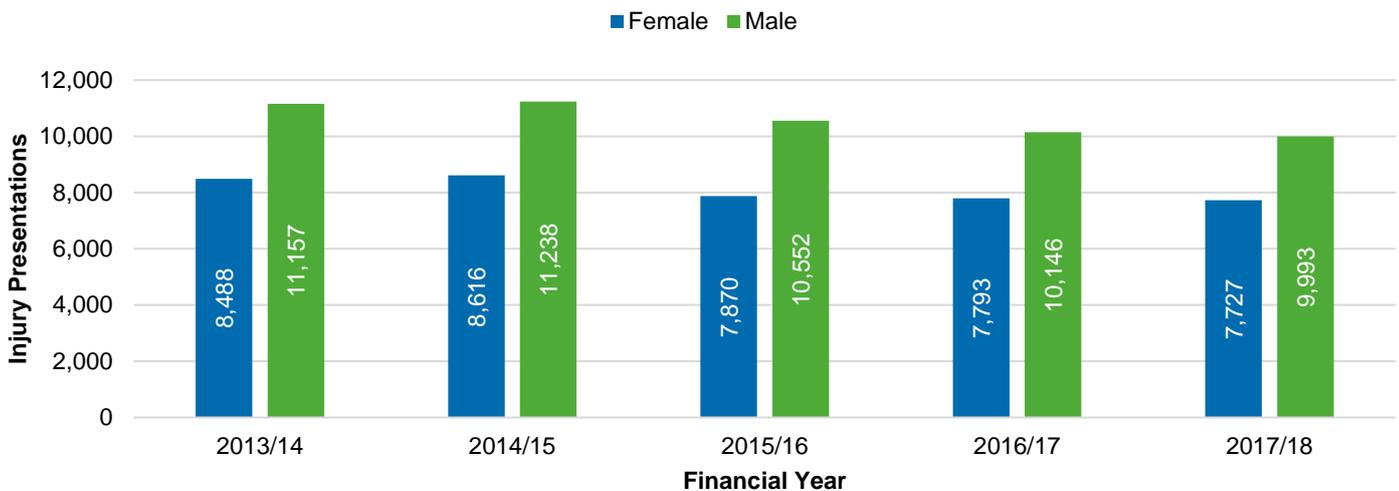
Government of **Western Australia**
Department of **Health**

Introduction

Data from developed countries worldwide indicates that from birth onwards, male children are injured at higher rates than female children. Several theories have been put forward to explain this difference, including that on average, males engage in more risky behaviour compared to females due to evolutionary history. Other theories suggest that males are socialised differently and given more independence compared to females.^{1,2}

Between July 2013 and June 2018, 53,086 male children and 40,494 female children presented to PCH ED for an injury. There has been a slight decrease in total injury presentations over the five year period, however males are consistently over-represented (Figure 1). Males account for 56.7 percent of injury presentations on average, with a range of 56.4 to 57.3 percent from July 2013 to June 2018.

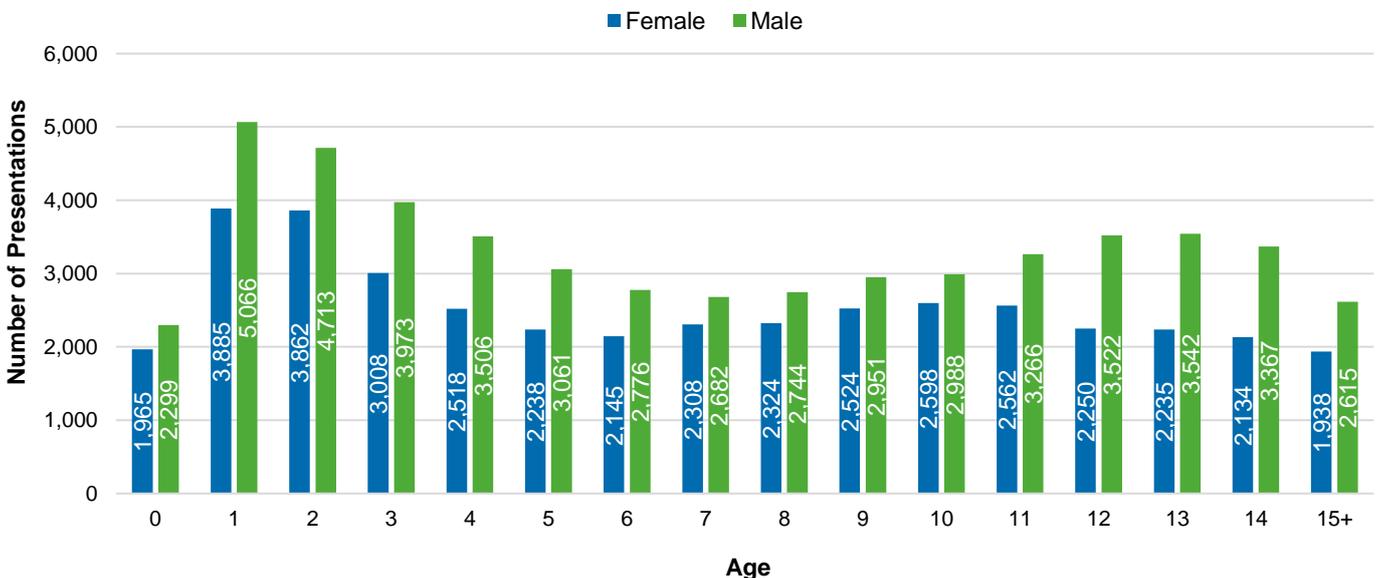
Figure 1: Injury by Financial Year and Gender



Demographics

Males record higher rates of injury presentation in comparison to females across all age groups (Figure 2). This difference is highest in 13 year old males who account for 61.3 percent (n=3,542) of injuries and lowest in 10 year old males who account for 53.5 percent (n=2,988) of injuries. Total injury presentations are highest in 1 year olds for both genders (Females: 4.2%, n=3,885; Males: 5.4%, n=5,066).

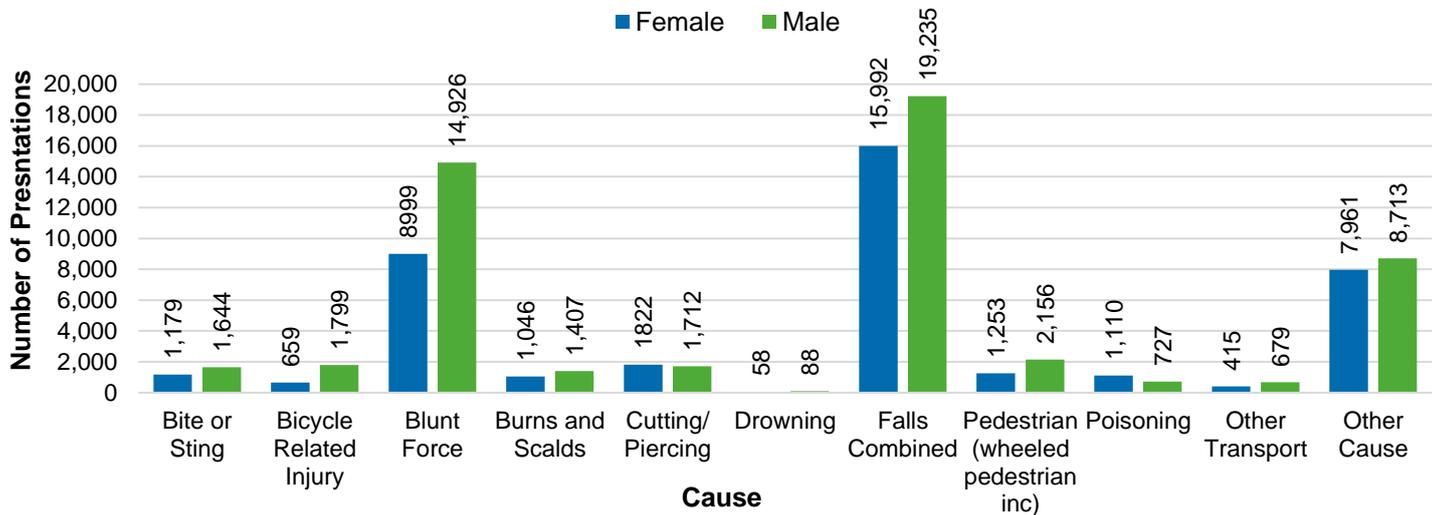
Figure 2: Injury by Age and Gender



Injury

The majority of injuries to children are unintentional for both genders (F: 95.9%, n=38,835; M: 98.6%, n=52,325). The remaining injuries are due to self-harm (F: 3.2%, n=1,287; M: 0.5%, n=263), alleged assault (F: 0.5%, n=225; M: 0.5%, n=291), or are undetermined or other (F: 0.4%, n=147; M: 0.4%, n=207).

Figure 3: Injury by Cause



The most common injury cause to children of both genders is falls, which accounts for 36.2 percent (n=19,235) of all injuries to males and 45.5 percent (n=15,992) of all injuries to females (Figure 3). This is followed by blunt force, which accounts for 28.1 percent (n=14,926) of all injuries to males and 22.2 percent (n=8,999) of all injuries to females. When looking at gender ratios within each injury cause group excluding cutting/piercing and poisoning, male children outnumber female children in every injury cause group. Due to self-harm injury presentations being predominantly female (83.0%, n=1,287), females are also over-represented in the cutting/piercing and poisoning injury categories. The largest difference between genders by injury cause is bicycle related injury, of which males comprise 73.2 percent (n=1,799).

Injury location is coded as other place for more than half of all injuries for females (60.9%, n=24,658) and males (60.2%, n=31,957) (Figure 4 & Figure 5). Other place refers to an unknown location or one that does not fit into an existing category. Of the remaining known locations, the home is the most common location of injury for both males and females (F: 18.5%, n=7,491; M: 17.2%, n=9,112), followed by school or residential institution (F: 10.3%, n=4,191; M: 11.8%, n=6,262). Within the home, the outdoors is the most common specified location for injuries to children (F: 16.2%, n=1,216; M: 17.0%, n=1,546) followed by living and dining room (F: 11.3%, n=844; M: 10.8%, n=981).

Figure 4: Injury Location - Females

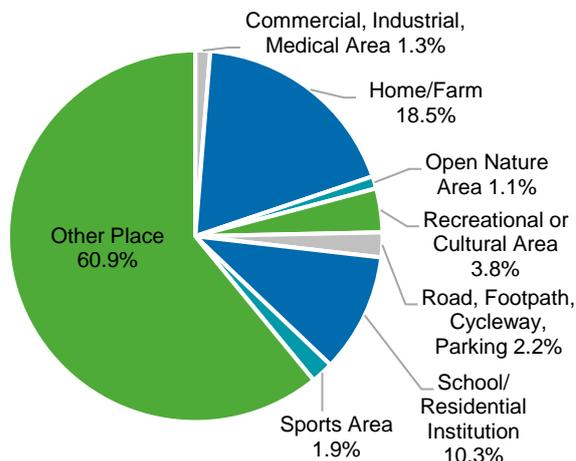
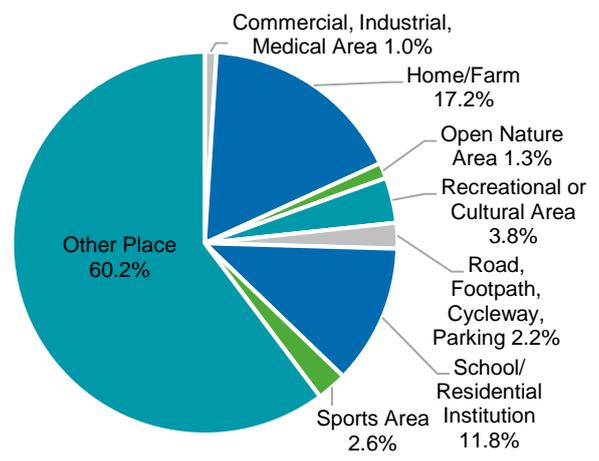


Figure 5: Injury Location - Males



Sporting activities are involved in 26.0 percent of all injuries to males (n=13,823) and 19.7 percent of all injuries to females (n=7,971). When looking at sporting injuries, trampolining is the most common sports injury in female children (17.1%, n=1,364), followed by netball (14.7%, n=1,174) and cycling (7.7%, n=615). For male children, Australian Rules Football is the most common sports injury (17.4%, n=2,403), followed by soccer (13.0%, n=1,792) and cycling (11.2%, n=1,543).

Most children departed PCH ED with treatment completed (F: 84.2%, n=34,080; M: 81.6% n=43,332). The remaining children were admitted to hospital (F: 12.9%, n=5,227; M: 15.7%, n=8,312) or discharged after admission (F: 1.2%, n=373; M: 1.1%, n=581). A small amount did not wait for treatment (F: 0.7%, n=288; M: 0.7%, n=393).

Prevention

Falls and sporting injuries are involved in a large number of injuries to both male and female children of all ages. There are many steps parents and carers can take to reduce the risk of these injuries to children.

Falls

- Do not leave your baby unattended on nursery equipment or other raised surfaces.
- During nappy changes, always keep one hand on your baby and keep nappies and clothing within reach.
- Make sure the sides of cots or playpens are properly secured.
- Keep large toys and pillows out of the cot or playpen. Your baby could use these to climb over the side.
- Do not place furniture near windows or balcony rails.
- Avoid using baby walkers. Use a stationary activity centre instead.
- Always use the harness in high chairs and prams to keep your baby from falling out.
- Use safety gates at the top and bottom of stairs to restrict access, however also teach kids how to navigate stairs safely.

Sport and Play Safety

- Always warm up and cool down before and after exercise.
- Stay well hydrated while participating in sporting activities, particularly during warmer months.
- Ensure young children are participating in modified sports appropriate for their age such as AusKick, Kanga Cricket and NetSetGo.
- Ensure children participate in training sessions before playing in competitive games.
- Ensure appropriate protective equipment is worn for your chosen sport.
- Ensure coaches are aware of any existing medical conditions that may affect your child during sporting activities.
- When using bicycles and other small wheeled devices, ensure that they are the right size for your child and that they always wear a helmet.
- Ensure trampolines and other playground equipment meet Australian Standards, and are in good condition.
- Always supervise children when they are playing, and teach them how to use equipment safely.
- Ensure your child is using playground equipment that is suitable for their age and stage of development.

References

¹ Wilson, M, Daly, M. Competitiveness, risk taking, and violence: the young male syndrome. *Ethology and Sociobiology* [internet]. 1985. 6(1): 59-73. [https://doi.org/10.1016/0162-3095\(85\)90041-X](https://doi.org/10.1016/0162-3095(85)90041-X).

² Peden, M, et al. *World Report on Child Injury Prevention*. Geneva: World Health Organisation. 2008.

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For further information please contact Kidsafe WA