Kidsafe WA
Childhood Injury Bulletin

Child Accident Prevention Foundation of Australia
Western Australia

June 2023

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 among Australian children aged zero to fourteen, accounting for nearly half of all deaths in this age group. More children die of injury than of cancer, asthma and infectious diseases combined. However, many of these deaths and injuries can be prevented. Kidsafe WA works 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
Perth Children's Hospital (PCH) is the only paediatric hospital in Western Australia and is the referral centre for paediatric illness and injury within the state. Each year approximately 64,000 children present to the PCH Emergency Department (ED). The PCH ED Injury Surveillance System is designed to capture data related to all children who present with an injury. This bulletin summarises injuries occurring during the winter months of June, July and August across the five-year period between July 2017 and June 2022.

Injuries Occurring in Winter

A snapshot of injuries occurring in winter

- On average there are 5,009 injury presentations to PCH ED each **Winter**. A total of 25,043 over the five year period.
- Of the winter months, the highest number of injuries occur during **August** (36.0%, n=9,028).
- **Males** accounted for 56.4 percent (n=14,123) of presentations.
- Children aged between **10 and 14 years** accounted for the majority (35.9%, n=9,005) of winter injuries.
- Almost all injuries (97.0%, n=24,300) were deemed **unintentional**.
- **Falls** were the most common cause of injury, accounting for 35.4 percent (n=8,876) of injuries. Followed by **blunt force** injuries accounting for 27.58 percent (n=6,907) of injuries.
- Sports-related injuries account for 27.8 percent (n=6,984) of total injuries, with **Australian Rules Football** accounting for the highest proportion of sporting-related injuries throughout winter (20.9%, n=1,458)
- **School** was the most common known location for injury to occur during winter (44.7%, n=2,704).
- The majority of patients were **discharged** with treatment complete (86.3%, n=21,633).

Partner:

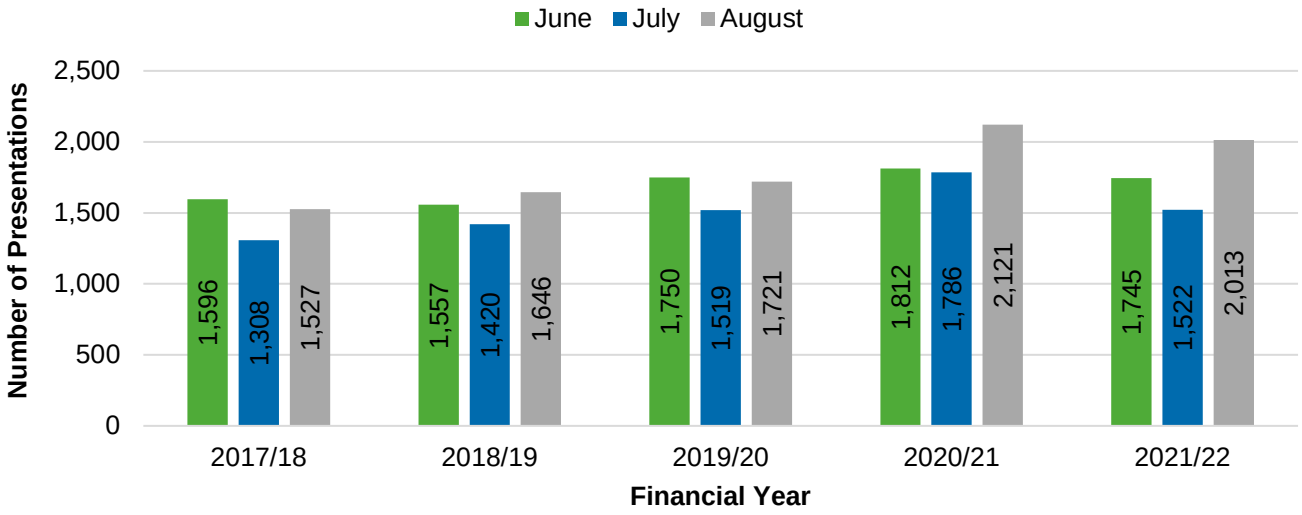
Government of **Western Australia**
Department of **Health**

Introduction

Winter brings cooler weather and a change in routine, which introduces new injury hazards for young children. In particular, it is a time when many children are playing organised sports, with many of these sports being contact sports. National data reflects that 52.0% of sporting or athletic related admissions (for all ages) occurred over the colder months (April-August) in 2020-2021[1]. With cooler temperatures and a rise in engagement with organised sports, the nature and risk of certain injuries can change.

Between July 2017 to June 2022, a total of 97,696 children presented to PCH ED with an injury. Just over a quarter (25.6%, n=25,043) of these injury presentations occurred during the winter months of June, July, and August. August accounts for the greatest number of injury presentations accounting for 9.2 percent (n=9,028) of all injuries, with June and July accounting for 8.6 percent (n=8,460) and 7.7 percent (n=7,555) respectively (Figure 1).

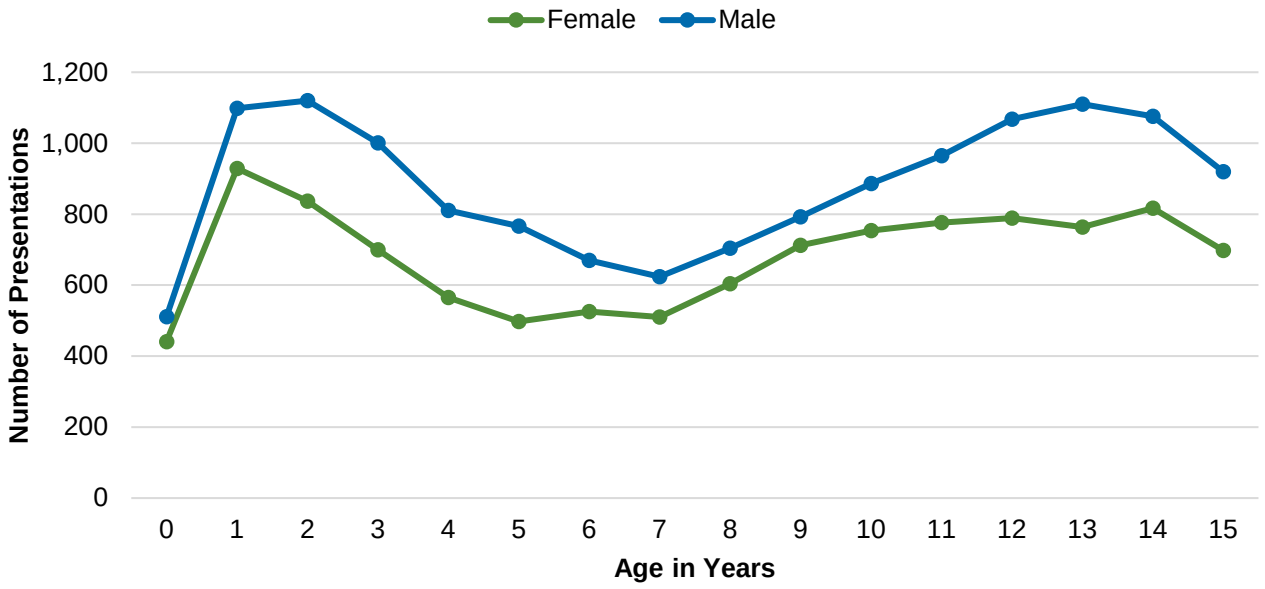
Figure 1: Injuries Occuring in Winter by Financial Year



Demographics

Males accounted for a higher number of injuries during winter (56.4%, n=14,123) in comparison to females (43.6%, n=10,920). Injury prevalence was highest for those aged one (8.0%, n=2,027) and two (7.8%, n=1,957) years of age with a decreasing trend until the age of seven years (4.5%, n=1,134), where numbers spiked again in both males and females during early adolescence (Figure 2).

Figure 2: Injuries Occuring in Winter by Age

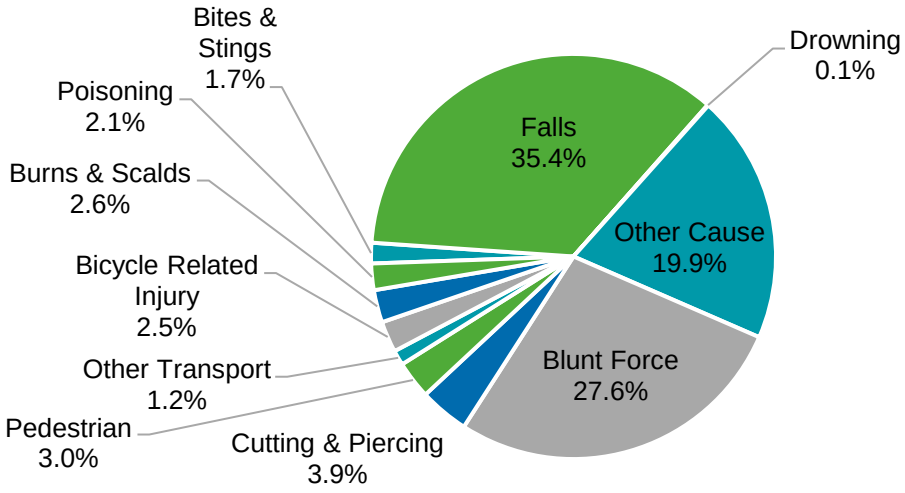


Injury

Every child that attends the PCH ED is allocated a triage category between one and five with one being most urgent and five being least urgent. Category 4 (Semi-urgent) was the most commonly allocated triage time for winter injuries accounting for 78 percent (n=19,552). It was followed by category 3 - Urgent (17.3%, n=4,335) and category 2 - Emergency (3.8%, n=972). Category 1 – Resus and category 5 – Non-urgent accounted for the remaining. Almost all of injury presentations to PCH ED during winter were deemed unintentional (97.0%, n=24,300).

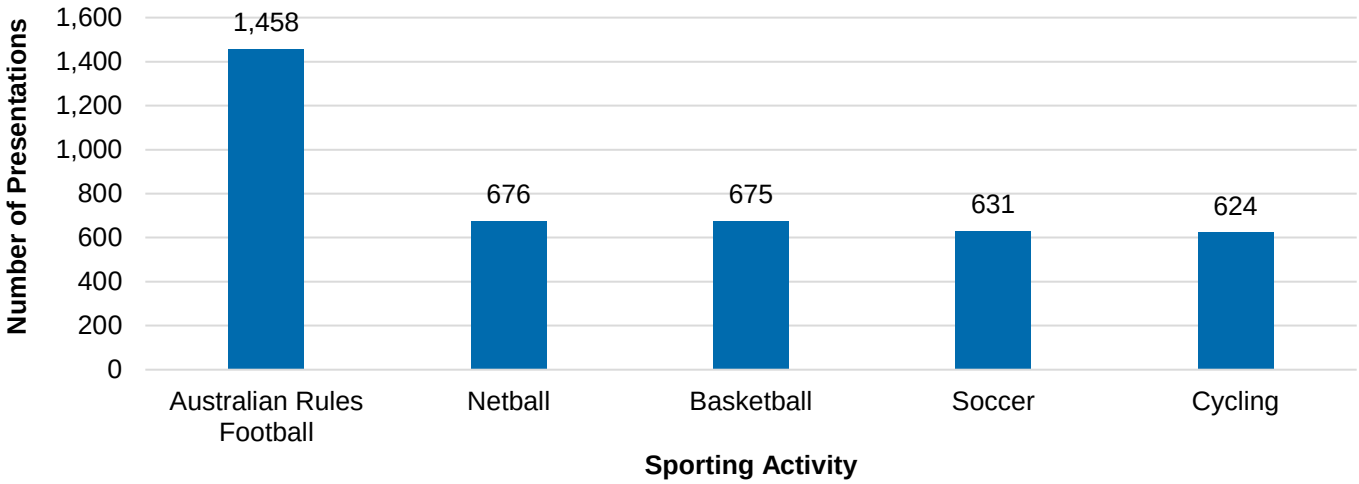
The most common cause of injury during winter was falls (35.4%, n=8,876) followed by blunt force injuries (27.6%, n=6,907) (Figure 3). Of note, burns and scalds presentations (2.6%, n=649) are consistent with the yearly average of 2.6 percent, which differs from other reports that indicate burn injuries peak during winter as there is an increase in the use of heaters, hot drinks and fireplaces[2].

Figure 3: Injuries Occuring in Winter by Cause



Sports-related injuries accounted for 27.8 percent (n=6,984) of total injuries during winter months, which is slightly higher than the yearly average of 24 percent. Australian Rules Football accounts for the highest number of sporting-related injuries throughout winter (20.9%, n=1,458), followed by netball (9.7%, n=676), basketball (9.7%, n=675) and soccer (9.0%, n=631) (Figure 4).

Figure 4: Injuries Ocurring in Winter by Sporting Activity (Top Five)



For three-quarters of injuries (75.8%, n=19,000) location was recorded as other place. Of known locations (24.1%, n=6,043), School/residential institutions accounted for 44.7 percent (n=2,704) of injuries, followed by Home (26.1%, n=1,577) and Recreational or Cultural Areas (8.7%, n=527).

Most presentations to the PCH ED during winter were based on concerns from themselves or a relative (90.1%, n=22,585). This was followed by referrals from other hospitals (4.0%, n=1,005) and general practitioners (3.5%, n=888). The majority of patients were discharged with treatment complete (86.3%, n=21,633). A further 11.9% (n=2,987) of patients were admitted to hospital for additional treatment, and the remaining presentations either left at their own risk, did not wait for treatment, or were referred to another department or hospital.

Prevention

During the winter months, children are more likely to spend their time indoors at home and participating in organised sports. The following steps can help reduce the risk of injury during winter:

Around the Home:

- Learn Burns First Aid – Prevent, Remove, Cool, Cover and Seek.
- Install guards around fires, heaters and on top of stoves. Teach children why these are in place.
- Always remove hot water bottles and heat packs from beds before putting your child to bed.
- Always test bath water before placing your child in the water – Child resistant taps/tap covers can help to stop your child from turning on taps.
- Always supervise children around backyard fire pits and campfires. Ensure children stay at least 1.5m from the fire and never leave the fire unattended.
- Ensure children are wearing enclosed shoes when around fire pits and campfires.
- Always use water to cover a firepit or campfire. Sand can stay hot for many hours.

During Sports and Recreational Activities:

- Ensure children wear appropriate protective equipment for the sport they are participating in. This may include mouthguards, eyewear, helmets, protective padding, footwear, and gloves.
- Children should always warm up before exercise and cool down after.
- Young children should participate in modified sports appropriate to their development.
- Children should participate in training sessions to learn and develop new skills before participating in competitive games.
- Children should not play sport if tired, ill or injured. Ensure that appropriate recovery time is allocated. If in doubt – DO NOT PLAY.
- Sporting grounds and facilities should be regularly checked and damaged surfaces, fencing, lights, posts, padding and rubbish should all be reported.
- Ensure the coach is aware of existing medical conditions that may affect the child during sport activities.
- A trained and equipped first aid officer should be present during training and competitions.
- Schools should outline suitable rules and guidelines for children playing sport during recess and lunch.
- If an injury does occur, seek immediate medical attention.
- If a child receives a sporting injury, the following injury management approaches should be used:
  DRSABCD (Danger, Response, Send for help, Airway, Breathing, Compression and Defibrillation)
- For sprain and strain injuries apply:
  RICER (Rest, Ice, Compression, Elevation and Referral)
  NO HARM (NO Heat, Alcohol, Running or Massage)

References:

1. Australian Institute of Health and Welfare. (2022). Injury in Australia: Seasonal Differences. Retrieved from: https://www.aihw.gov.au/reports/injury/injury-in-australia/contents/seasonal-differences
2. Department of Health. (2015). *Injury Prevention in Western Australia: A Review of Statewide Activity for Selected Injury Areas.* Retrieved from: https://ww2.health.wa.gov.au/~/media/Files/Corporate/Reports%20and%20publications/PDF/150824-Injury-Prevention-in-WA-2015-UPDATE.ashx

Suggested citation:
Christmas, O, McKenna, J, Skarin, D. Injuries Occurring in Winter. Perth (WA): Kidsafe WA (AU); 2023 June. Report No.: 52.

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