

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 furniture tip-over injuries occurring across the five-year period between January 2018 and December 2022.

Furniture Tip-over Injuries

A snapshot of furniture tip-over injuries

- A total of 124 children presented to the PCH ED as a result of a furniture tip-over injury over the five year period, accounting for an annual average of **25 children per year**.
- **Children aged between 0 and 4 years** are most at risk accounting for 75.0 percent of furniture tip-over injuries.
- **Males** were slightly over-represented accounting for 53.2 percent of furniture tip-over injuries.
- The most common piece of toppling furniture was the **chest of draws** accounting for 21.8 percent.
- It is unknown if **safety equipment** such as furniture straps or wall brackets were used in any of the cases.
- **Adult supervision** was largely unknown.
- Just under a quarter of cases (22.6%) reported that the child **pulled the furniture** onto themselves.
- Just under 20 percent of injuries occurred within the **home** (16.9%).
- Most furniture tip-over injuries were triaged as **semi-urgent** (62.9%).
- The majority of children who sustained a furniture tip-over injury were able to **depart with treatment complete** (88.7%).



Partner:



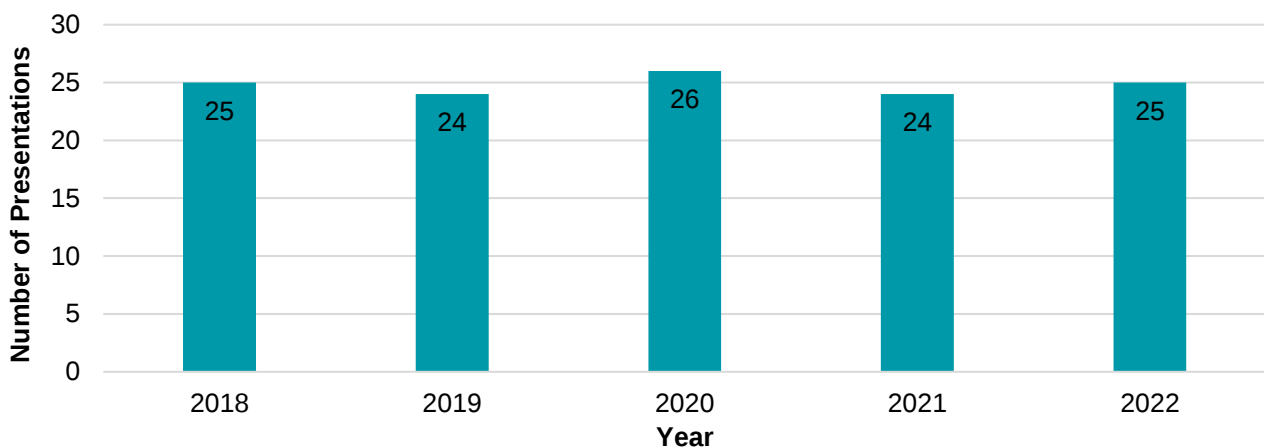
Government of **Western Australia**
Department of **Health**

Introduction

Since the year 2000, there have been 27 deaths due to furniture tip-over accidents in Australia.¹ A furniture tip-over injury is a situation where a person is toppled over by heavy furniture due to an interaction that displaced it from its normal position, such as climbing or exerting a force on it.² When furniture topples, injuries can include being struck or crushed by the furniture which can result in serious injury such as asphyxiation, fractures, internal injuries and head injury.^{1,2} Children under the age of five are at particular risk of injury due to their cognitive development and physical size.¹ Children are often keen to explore the environment around them and may climb, reach or pull on furniture, increasing the risk of it toppling.

Using Crystal Reports (v14) a custom search query was set up to identify potential furniture tip-over injuries presenting to PCH ED. The query searched the injury surveillance database between 2018 and 2022 using the following inclusion criteria: Injury Cause (blunt force, non-sport), Intent (unintentional), Location (home and unknown), Injury Factor (other baby/child product, other building component, other furniture/furnishings, cupboard/partition, and toy/play equipment). Common household items like chairs, tables, and beds were excluded. After identifying the injuries of interest (n=457), each case was manually reviewed to identify true furniture tip-over injuries (n=124). Between January 2018 to December 2022, a total of 124 children presented to the PCH ED as a result of sustaining a furniture tip-over injury. Presentations remained fairly consistent over the five-year period, accounting for an annual average of 25 children per year (Figure 1).

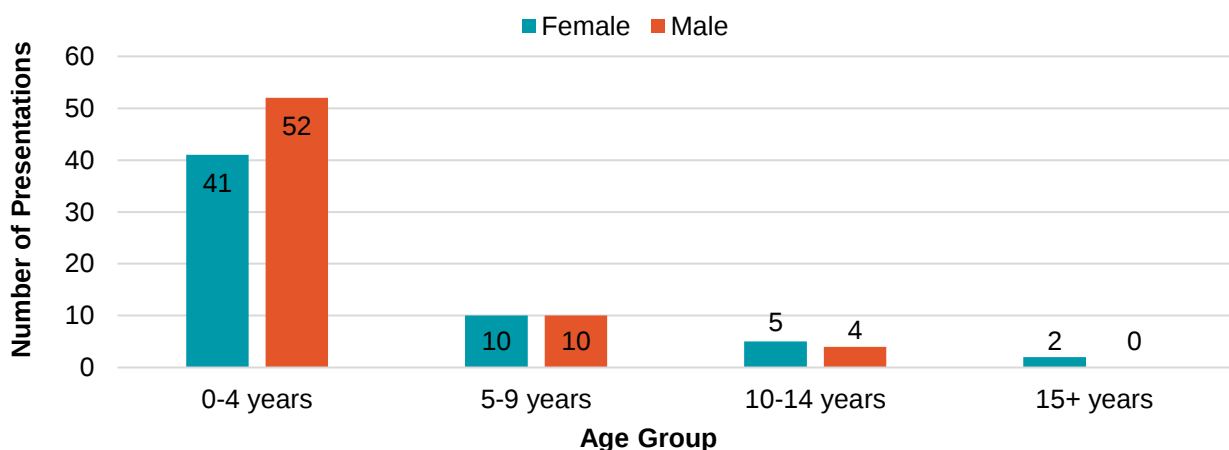
Figure 1: Furniture Tip-over Injuries by Year; 2018 to 2022



Demographics

Children aged between 0 and 4 years accounted for 75.0 percent (n=93) of furniture tip-over injuries, followed by children aged between 5 and 9 years (16.1%, n=20) and between 10 and 14 years (7.3%, n=9) (Figure 2). Toddlers aged one and two years were most at risk of furniture tip-over injury, accounting for 23.4 percent (n=29) and 24.2 percent (n=30) of injuries respectively. Males were slightly over-represented accounting for 53.2 percent (n=66) of furniture tip-over injuries in comparison to females (46.8%, n=58).

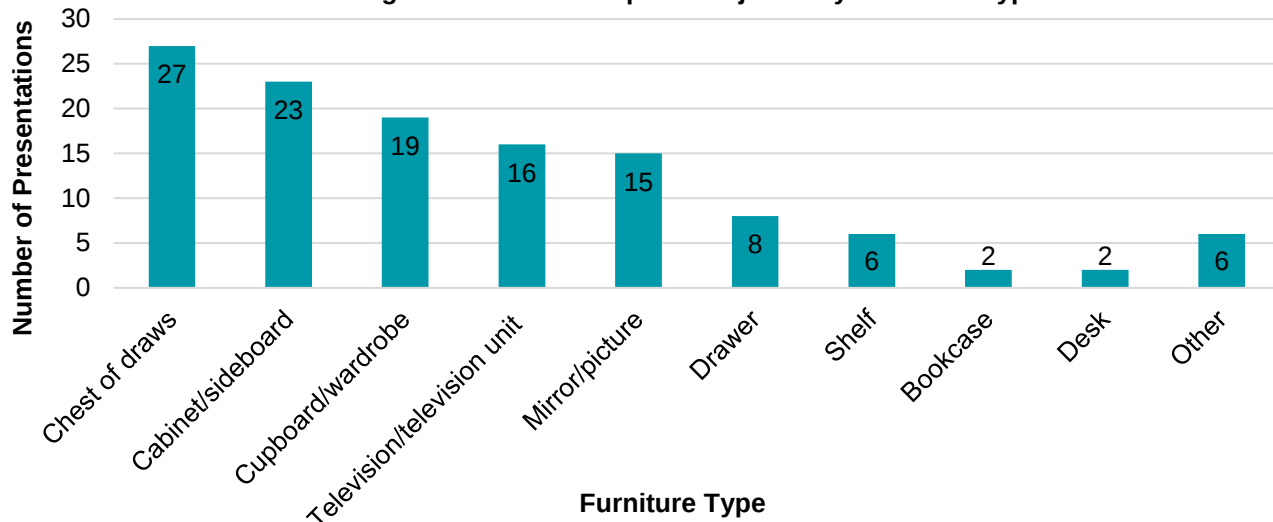
Figure 2: Furniture Tip-over Injuries by Age and Sex



Injury

The most common piece of toppling furniture was the chest of draws accounting for 21.8 percent (n=27) of furniture tip-over injuries. This was followed by cabinets/sideboards (18.5%, n=23), cupboards/wardrobes (15.3%, n=19) and television/television units (12.9%, n=16) (Figure 3). The Other category included furniture items such as a white board, oven and partition. It was unknown if safety equipment such as furniture straps or wall brackets were used in any of the cases.

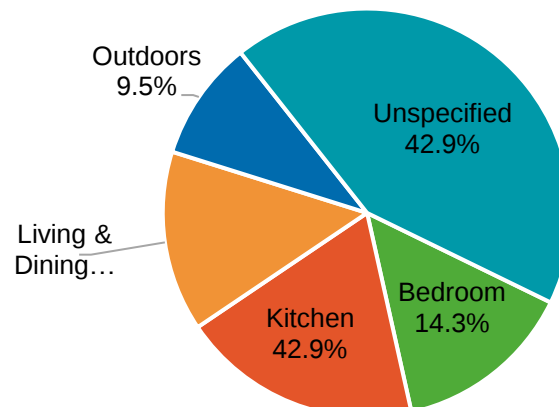
Figure 3: Furniture Tip-over Injuries by Furniture Type



Details about what the child was doing before the incident was limited, with only 36.3 percent (n=45) of cases providing additional information in regard to the mechanism of the injury. Just under a quarter of cases (22.6%, n=28) reported that the child pulled the furniture onto themselves. A further 8.8 percent (n=11) of cases indicated the child was climbing on the furniture and the remaining 4.8 percent (n=6) of cases providing additional information stated the child was either playing near, reaching for an item or opening a draw. Adult supervision was unknown in 90.3 percent (n=112) of cases. Where information was provided, 8.1 percent (n=10) were unwitnessed and only two cases (1.6%) were witnessed by an adult.

A large number of presentations were recorded as occurring in an unknown location (83.1%, n=103). The remaining occurred within the home (16.9%, n=21). Just under half of the injuries that occurred at home, occurred within an unspecified room of the house (42.9%, n=9). The kitchen was the most common room for furniture tip-over to occur, accounting for 42.9 percent (n=9), followed by the bedroom (14.3%, n=3), living and dining room (14.3%, n=3) and outdoors (9.5%, n=2) (Figure 4).

Figure 4: Furniture Tip-over Injuries by Location within the Home



Children who present to the PCH ED are allocated a triage category between one (most urgent) and five (least urgent). Most furniture tip-over injuries were triaged as semi-urgent (62.9%, n=78) followed by urgent (34.7%, n=43) and emergency (2.4%, n=3). The majority of children who presented to the PCH ED with a furniture tip-over injury were able to depart with their treatment complete (88.7%, n=110). The remaining 11.3 percent (n=14) were admitted to hospital for further treatment.

Prevention

While there are currently no mandatory safety standards in Australia in relation to furniture tip-overs, there are a range of voluntary measures and product recalls aiming to reduce safety risks.¹ In addition in 2018, an amendment to WA's Residential Tenancies Act means landlords must allow tenants to attach furniture to a wall to prevent a child or person with a disability from being hurt.³ A number of factors can impact furniture tip-over injuries including product design, anchoring furniture and consumer behaviour and awareness.¹ Retailers, manufacturers, legislators and consumers all play an important role. The following preventative measures can assist in reducing the risk of furniture tip-over injuries:

Retailers:

- Should provide safety information around securing furniture in the home.
- Encourage buyers to purchase brackets or furniture straps if not provided with furniture products.
- Promote furniture that includes design elements to increase stability.

Consumers:

- Choose stable furniture, that is low set with a wide base. Thin and top-heavy furniture can easily tip.
- Check that the unit is stable when drawers or cupboards are open and when applying pressure to the open drawer.

At home:

- Use furniture straps or brackets to ensure furniture around the home is secured to the wall.
- Place items such as televisions towards the back of the unit or mount the television on the wall.
- Ensure there are no hanging cords. A cord may be pulled by the child and topple the furniture.
- Use locks on cupboards and drawers. An open chest of drawers acts like a pivot lever when a child uses them like a ladder for climbing.
- Keep items like toys within the child's reach and avoid placing attractive items up high to reduce the risk of children climbing furniture.
- Place heavier items such as books at the bottom of storage furniture to reduce the risk of tip-overs.
- Teach children about the dangers of climbing furniture. Ensure children know that they are not allowed to climb furniture and be consistent.
- Inform adults who intermittently care for children in their home (such as grandparents) of the safety risks of toppling furniture.
- Active adult supervision. Know where your child is in the home and supervise them closely.

Kidsafe WA and the WA Consumer Product Advocacy Network continue to advocate for and raise awareness of the risk associated with unsecured/toppling furniture. For more information visit:

<https://www.kidsafewa.com.au/professionals/wa-consumer-product-advocacy-network/>

References

1. Australian Competition and Consumer Commission. (2021). *Toppling furniture and televisions—Issues paper*. Australian Competition and Consumer Commission. <https://consultation.accc.gov.au/product-safety/toppling-furniture-and-televisions-issues-paper/>
2. Suchy, A. (2022). *Product Instability or Tip-Over Injuries and Fatalities Associated with Televisions, Furniture, and Appliances: 2021 Report*. US Consumer Product Safety Commission. <https://www.cpsc.gov/content/Product-Instability-or-Tip-Over-Injuries-and-Fatalities-Associated-with-Television-Furniture-and-Appliances-2021-Report>
3. Government of Western Australia (AU). Parliament Passes New Laws to Protect Children from Toppling Furniture [Internet]. Perth, WA (Australia): Department of Mines, Industry Regulation and Safety; 2020 Mar [cited 2023 May 19]. Available from: <https://www.commerce.wa.gov.au/announcements/parliament-passes-laws-protect-children-toppling-furniture#:~:text=The%20Consumer%20Protection%20Legislation%20Amendment,from%20being%20hurt%20or%20killed.>

Suggested citation:

McKenna, J, Antero, L, Skarin, D. Furniture Tip-over Injuries. Perth (WA): Kidsafe WA (AU); 2023 June. Report No.: 52.

The Kidsafe WA Childhood Injury Bulletins are produced by Kidsafe WA in consultation with the Perth Children's Hospital Emergency Department and WA Department of Health.

For further information please contact Kidsafe WA