

Evidence-Based Recommendations for Trampoline Safety

May 17, 2023

Trampoline Safety

Background

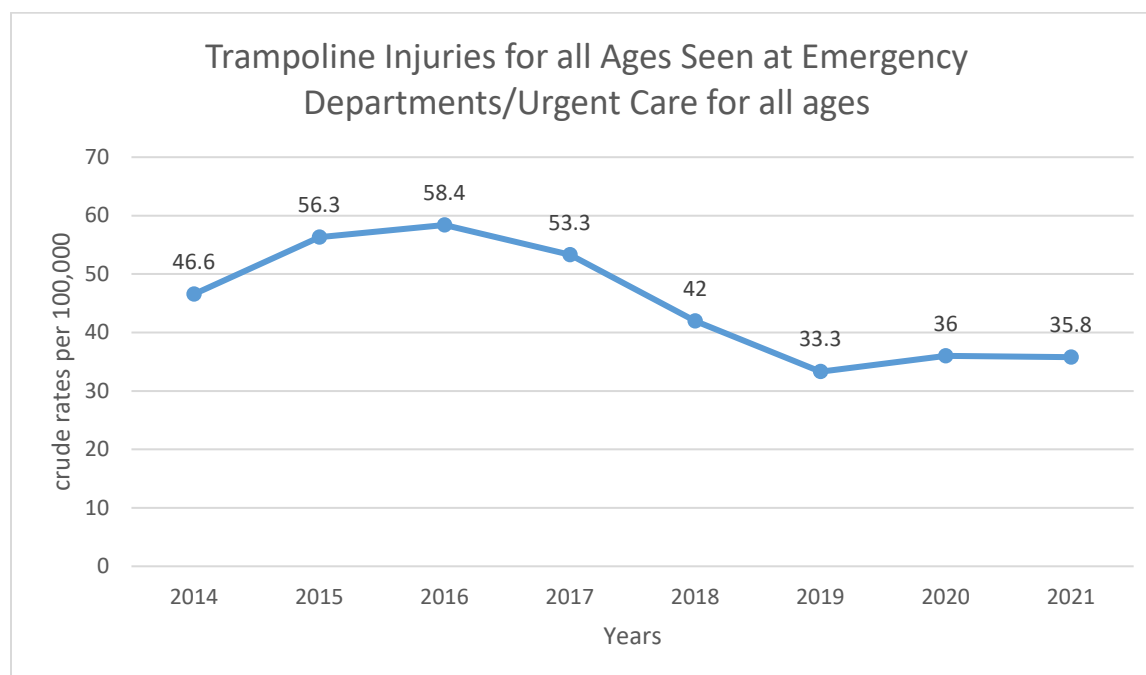
Trampolines are used in a variety of supervised and unsupervised settings such as schools, gymnastics clubs, training programs, and private homes. The following recommendations pertain solely to trampoline use outside of gymnastic clubs and training programs. These environments include private residences (including private homes, cottages and temporary summer residences) and trampoline parks.

Many people think of trampolines as a means of getting their kids outdoors and exercising; however, trampolines pose significant risks. Trampoline parks have shown to have similar high risk injuries as private residences. Mujadi's et al (2020) systematic review found "Park trampoline use carries a two times higher risk of requiring surgery when compared to home trampoline use. In terms of age and sex of the participant, there is a 1.5 times significantly higher risk of injury in children compared to adults, and females when compared to males" (Mujadi et al, 2020 p.1). Trampoline-related injuries can result in broken bones, head, back and neck trauma, sprains, bruises and cuts. In some cases, injuries are severe enough to cause permanent disability and even death. At this time no provincial jurisdiction has legislation regarding private residences trampolines to reduce injuries.

Between 2016-2021, 11,271 Albertans visited emergency departments/urgent care (ED/UCC) for trampoline related injuries (Alberta Health Services, AHS Surveillance Dashboard, 2022). On average, more than five children visit Alberta emergency departments each day due to trampoline use.

In response to the sharp increase in trampoline injuries between 2011 and 2016 there had been a sharp increase in trampoline injuries. Between 2017 and 2021 the crude rate (per 100,000) trampoline injuries seen at ED/UCC has decreased by 38.7%.

Figure 1: Trampoline injuries seen at ED/UCC indicates that there has been a 38.7% crude rate decrease for trampoline injuries in all age groups between 2016 and 2021.



Quick Facts

In 2021, 1,605 Albertans sustained trampoline-related injuries severe enough to require care in the ED/UCC. Of these 1605 visits

- 40% (642) had fractures
- 24%(390) had dislocations
- 12.6% (202) were superficial
- 5.8% (94) had open wounds
- 17.1% (276) unknown type of injury

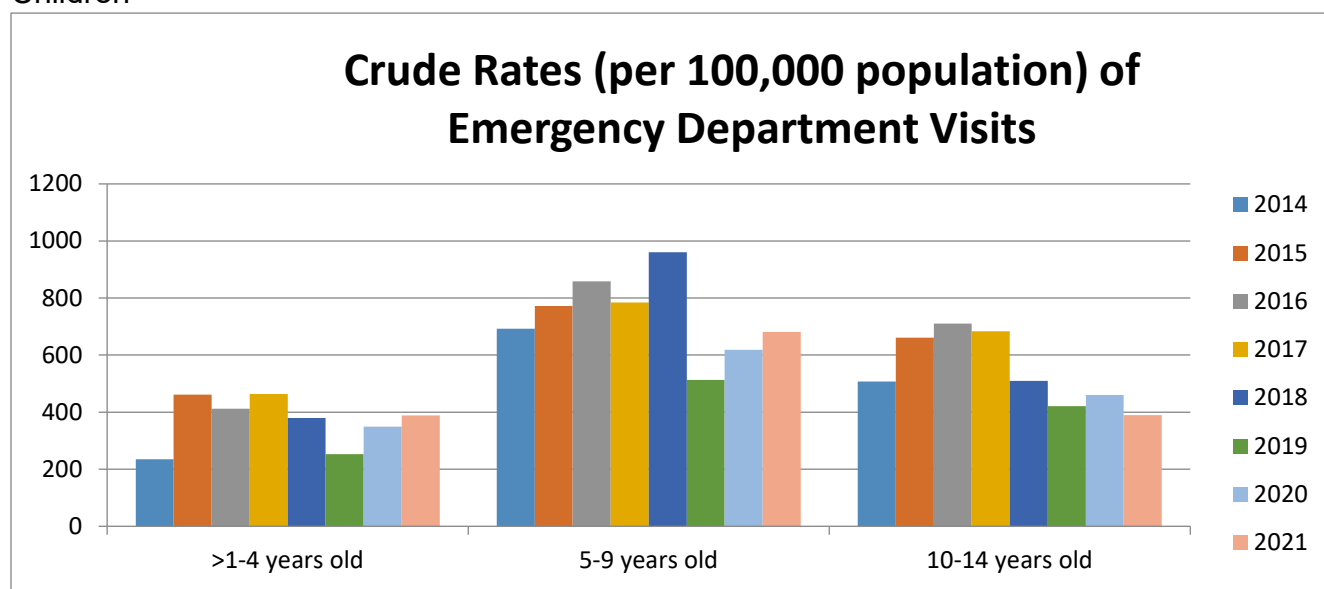
Affected Body Areas

- 373 knee and lower leg injuries
- 191 head injuries
- 149 shoulder and upper arm injuries
- Remaining identified trampoline injuries do not include specific body parts

In 2021 60% (967) children, between the ages of one and nine, were seen at ED/UCC for trampoline injuries.

Trampolines are often sold with safety nets to prevent people from falling off. Parents may perceive that these nets reduce the risk of injury. However, less than 30% of trampoline injuries are caused by children falling off the trampoline. According to the Canadian Pediatric Society, “the majority of trampoline injuries on backyard trampolines occur as a result of falls while jumping directly on the trampoline mat, negating the notion that harm reduction measures such as spotters around the outside of the trampoline, parental supervision or even safety enclosures can eliminate injuries” (CPS, 2007 reaffirmed 2013).

Figure 2: Emergency Department/Urgent Care Visits for Trampoline Injuries for Children



Source: AHS Injury Surveillance Dashboard, September 2022

Figure 1 indicates that child trampoline injuries have decreased since 2018 for most children by 24.5%.

Children aged five to nine have the highest rate of Ed/UCC visits. Crude rates were used in this figure for trampoline injuries to account for population changes between 2017 and 2021.

Prevention of Home Trampoline Injuries

There is ongoing discussion on the safety of trampolines at private residences (including private homes, cottages and temporary summer residences).

Manufacturers have attempted to improve safety through changes in engineering (safety nets and extra padding), however, these engineering changes have not been demonstrated by evidence as being effective in reducing injuries. Parachute (2022), The Canadian Paediatric Society and the Canadian Academy of Sport and Exercise Medicine joint statement (2012) and the Canadian Paediatric Society (2016, reaffirmed 2022) continue to recommend the elimination of trampolines in home environments..

Key Messages

- The evidence-based findings suggest that trampolines should not be used for recreational purposes at private residences (including private homes, cottages and temporary summer residences) and trampoline parks by anyone, any age.
- The Canadian Paediatric Society and Canadian Academy of Sport and Exercise Medicine joint Position Statement to advocate for the elimination of trampolines at all private residences' children and youth.
- Health care professionals, including public health nurses, family physicians and pediatricians, should inform Albertans of the dangers of trampolines as a recreational toy at routine health care visits when the opportunity arises.
- Albertans should be advised to not purchase trampolines for the home because enclosures and adequate supervision are no guarantee against injury.
- Homeowners should verify that their insurance policies cover trampoline-related claims. Coverage is highly variable and a rider may need to be obtained.
- Trampolines should not be regarded as play equipment and should not be part of home play areas.
- Trampoline Parks are not safer than backyard trampoline. Injuries are similar and can be more severe at trampoline parks. In trampoline parks there are more people as well as trampoline pits where it is possible to jump on another person.

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- Health care professionals support regulations requiring trampoline product labelling to advise consumers of dangers.

Related Resources

- [Canadian Pediatric Society this is the link An update to the Grieg Health Record: Preventive health care visits for children and adolescents age | Canadian Paediatric Society \(cps.ca\)](#)
- Parachute [Trampolines – Parachute](#)
- [Backyard Safety for Children](#)
- [Home and Playground Trampoline and Bouncer Safety](#)
- [Canadian Academy of Sport and Exercise Medicine TRAMPOLINES AT HOME AND PLAYGROUNDS \(casem-acmse.org\)](#)

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