Child injury related to inflatable play equipment - ‘jumping/bouncy castles’

Data supplied by the Victorian Injury Surveillance Unit, Monash Injury Research Institute.

Data were selected from the Victorian Emergency Minimum Dataset (VEMD) which is collected from the 38 Victorian hospitals with a 24-hour emergency service. Data quality varies across the hospitals so the counts reported here are underestimates.

Data source: Victorian Emergency Minimum Dataset (VEMD) January 2001 – December 2010 (10 years)
Search Strategy: Child injuries associated with jumping castles were identified by searching the VEMD for cases using the text term "castle" and spelling variations contained in the 250 character 'Description of Injury Event' field. Selected cases were checked and any irrelevant cases were excluded from the dataset prior to analysis.

Frequency: Over the decade, January 2001 to December 2010 there were 784 Emergency Department presentations in Victoria for injuries in children aged 0-14 related to ‘jumping castles’. Most cases were treated in the ED and discharged home, 11% were more seriously injured and required admission to hospital for further observation and or treatment.

Figure 1 Child ED presentations for jumping castle-related injury by year 2001-2010 (0-14) (n=784)

Gender: Males were more likely to present to ED with jumping castle-related injuries than females (57 % male, 43% female).

Age: Two thirds of cases occurred among children aged 2-8 years. One-year-olds and those aged thirteen and over were least involved.
Figure 2 Child ED presentations for jumping castle-related injury by age (1-14) (n=783)

Note: Cases involving children aged under one were not included due to small numbers n=<5

**Cause:** Falls caused 71% of injuries, while collisions with another person (12%) or with an object (6%) were also common causes of injury.

**Injury type:** Over two thirds of injuries were either fractures (41%) or sprains/strains (31%). Bruises and abrasions (6%), open wounds (3%) and injuries to muscles or tendons (4%) were less common.

**Body site:** The most commonly injured body sites were the elbow (15%), ankle (11%), forearm (11%), foot (10%), and wrist (8%).

**Safety tips:**
- To minimise the risk of injury, supervise children closely at all times while they are on a jumping castle.
- Never allow older children to jump at the same time as younger children.
- Restrict the number of children allowed on at the same time to collisions.
- Do not use the castle if it is not fully inflated.
- Make sure the device is anchored securely and there are no sharp objects in the vicinity.
- Check the jumping castle for any wear and tear that could cause it to deflate.
- Use safely mats at the entrance/exit and avoid jumping on wet or windy days.
- When hiring a castle, ensure the operators are experienced with setting up the equipment and that it conforms to the Australian standard (AS 3533.4.1).

Ref: Consumer Affairs Victoria

**Further information:** For further information on preventing child injury related to inflatable amusement devices, contact Kidsafe Victoria on (03) 9251 7725