

Trampolines and Trampoline Safety

This Position Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.

The number and severity of trampoline-related injuries positively correlate with the increased recreational use of trampoline equipment—those injuries are significant among all age groups.

Trampolining, an Olympic sport since 2000, can be an exciting activity with high speeds and high potential energy which can create hazardous conditions. Domestic and international research^{1, 4} indicates that trampolines should not be used in the home environment, routine physical education classes, or in outdoor playgrounds. Trampoline injuries are common even for athletes with substantial training, ideal equipment, and well-trained spotters. Those injuries may be minimized with limited use of the equipment, supervision in sports training programs, and by following the safety recommendations from the American Academy of Pediatrics Policy Statement¹ and the U.S. Consumer Product Safety Commission.² Any use by children age 6 or under should be prohibited.

Hospital emergency rooms and doctors' offices treat hundreds of thousands⁴ of trampoline-related injuries each year. The costs of medical, legal, insurance and disability expenses exceed four billion dollars.⁴ The most common injuries are sprains and fractures which result from falls on the trampoline mat, falls on the frame or springs, collisions with another jumper, stunts gone wrong, and falls off the trampoline. Severe injuries are not common, but they do occur and can result in paralysis or, rarely, death. The majority of trampoline injuries occur in the home environment. Most injuries occur among children between ages 5 and 14, and when children are unsupervised by parents or adults. More than half of the injuries occur on the mat of the trampoline and nearly two thirds of injuries involve two or more children using the trampoline at the same time.

Safety information is given by manufacturers, retailers, medical groups and government authorities, but many owners fail to heed this advice. While safety measures may help minimize severe injuries, the amount of effort required to properly prepare a location, the diligence required to maintain the trampoline mat, springs and frame, and the degree of time and expertise required to properly supervise trampoline use are frequently lacking.

In an effort to reduce the number and severity of injuries resulting from the use of trampolines, the American Academy of Orthopaedic Surgeons (AAOS) recommends routine observation of the following guidelines:

- Use of trampolines for physical education, competitive gymnastics, diving training and other similar activities requires careful adult supervision and proper safety measures.
- Trampolines should not be used for unsupervised recreational activity.
- Competent adult supervision and instruction is needed for children at all times.
- Only one participant should use a trampoline at any time.
- Spotters should be present when participants are jumping. Somersaults or high-risk maneuvers should be avoided without proper supervision and instruction; these maneuvers should be done only with proper use of protective equipment, such as a harness.
- The trampoline-jumping surface should be placed at ground level.
- The supporting bars, strings and surrounding landing surfaces should have adequate protective padding.
- Equipment should be checked regularly for safety conditions.
- Safety net enclosures may give a false sense of security – most injuries occur on the trampoline surface.
- Trampolines are not recommended for children under 6 years of age.
- Make sure trampoline ladders are removed after use to prevent unsupervised access by young children.

References:

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4. Larson B, Davis J: Trampoline-related injuries. *J Bone Joint Surg Am* 1995 Aug;77(8):1174-8.
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