AMERICAN ACADEMY OF PEDIATRICS

Committee on Injury and Poison Prevention

Skateboard and Scooter Injuries

ABSTRACT. Skateboard-related injuries account for an estimated 50 000 emergency department visits and 1500 hospitalizations among children and adolescents in the United States each year. Nonpowered scooter-related injuries accounted for an estimated 9400 emergency department visits between January and August 2000, and 90% of these patients were children younger than 15 years. Many such injuries can be avoided if children and youth do not ride in traffic, if proper protective gear is worn, and if, in the absence of close adult supervision, skateboards and scooters are not used by children younger than 10 and 8 years, respectively.

ABBREVIATION. CPSC, US Consumer Product Safety Commission.

OVERVIEW

In the past decade, there has been a resurgence in recreational skateboarding, and with it, there has been an increased number of injuries. In 1996, an estimated 5.8 million children and adolescents younger than 18 years in the United States had participated in skateboarding, and an estimated 750 000 had done so at least weekly.[1] During the past 25 years, the annual incidence of skateboard-related injuries peaked at 150 000 in 1977 and subsequently decreased to 16 000 in 1983. This decrease was likely related to decreased skateboard activity. More recently, with increasing popularity of the sport, the number of injured individuals younger than 20 years has increased from an estimated 24 000 in 1994 to approximately 51 000 in 1999.[2] In 1997, 1500 children required hospitalization for an injury sustained while skateboarding, and in most cases, the injury was to the head.

According to the US Consumer Product Safety Commission (CPSC), approximately 90% of all children and adolescents treated for skateboard-related injuries in 1999 were males.[2] The ankle, wrist, and face were the 3 most common areas injured, accounting for 38% of all injuries treated. Only 5% were severe (defined as concussions or internal injuries), whereas moderate injuries (long bone fractures or dislocations) accounted for 31%. Deaths were rare. Of those children injured seriously enough to require hospitalization at a children's hospital or pediatric trauma center, 25% were hit by a motor vehicle.[3]

Nonpowered lightweight scooters have become very popular in just a short time. These are made of lightweight aluminum with small, low-friction wheels similar to those on in-line skates. They weigh less than 10 lb and can be folded to enhance portability. Preliminary data from the CPSC indicate that an estimated 9400 people (94% younger than 15 years) were injured while using nonpowered scooters between January and August 2000. Injury frequency increased considerably during the summer months. Children younger than 8 years accounted for 31% of those injured. Approximately one third of all injuries were fractures or dislocations. Head and face injuries accounted for 29% of all injuries, whereas wrist, elbow, lower arm, and knee injuries together accounted for 34%.

The CPSC recommends that children younger than 8 years not use scooters without close supervision.[4] The CPSC further recommends that all riders use a helmet that meets their standards as well as knee and elbow pads. Children should not ride scooters on streets, at night, or on any surfaces that have water, sand, gravel, or dirt.[5]

Young children may be at high risk of injury from skateboards and scooters because their judgment of their own skills and strength is often poor, as is their ability to judge foot or vehicular traffic. Their center of gravity is higher than that of older children and adults, their neuromuscular system is not well developed, and they are not sufficiently able to protect themselves from injury. For these developmental reasons, children younger than 5 years should not ride skateboards, and those between 6 and 10 years of age should be closely supervised while skateboarding. Children younger than 8 years are at greater risk of scooter injuries than are older children and should not use them.

At the time this policy statement was developed, the increase in use of skateboards and scooters was too new for the effectiveness of these recommendations to be assessed. These preliminary recommendations were based on studies concerning the effectiveness of protective gear for in-line skating and bicycling. More time will need to pass to determine whether the popularity of skateboards and scooters will increase or wane and to assess the effectiveness of recommendations.

The American Academy of Pediatrics recommends the following:

1. Children younger than 10 years[6] should not use skateboards without close supervision by an adult or responsible adolescent. Children younger than 5 years should not use skateboards[7]; instead, parents and pediatricians should encourage them to

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

undertake activities that are more developmentally appropriate.
2. Skateboards must never be ridden in or near traffic, regardless of traffic volume.
3. "Skitching a ride," or holding on to the side or rear of a moving vehicle while riding a skateboard, should never be done. It is particularly dangerous because the rider cannot accommodate a sudden stop or swerve of the vehicle.
4. Pediatricians should advise parents, teachers, and others to strongly recommend that all skateboarders wear a helmet and other protective gear (including wrist guards, elbow pads, and knee pads) to prevent or reduce the severity of injuries resulting from falls.[8] Use of protective clothing, such as gloves, is not sufficient.[9] The helmet should be a bicycle helmet that complies (and is so labeled) with the CPSC standard[10] or a multisport helmet that complies with the N-94 standard established by the Snell Memorial Foundation.[11] The N-94 standard requires that helmets pass multiple impact tests to the back during laboratory testing.
5. Communities should continue to develop skateboarding parks and encourage youth to practice there. These parks are preferred to home-constructed ramps and jumps, because they are more likely to be monitored for safety and separate the skateboarder from pedestrian and motor vehicle traffic. Existing guidelines for such parks should be standardized.[12]
6. Until additional information is available, pediatricians should counsel parents on the use of nonpowered scooters according to the following CPSC recommendations[4]:
   - Children younger than 8 years should not ride scooters without close adult supervision.
   - Children should not ride scooters in streets, in traffic, or at night.
   - Children should wear helmets, knee pads, and elbow pads while using scooters.
7. The Academy strongly emphasizes the need to monitor the amount and nature of nonpowered scooter use and resultant injuries.

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