Fact Sheet

Children's Safety Network

Rural Injury Prevention Resource Center

March 1997

Horses and Children

Population at Risk

The American Horse Council has reported that there were 258,434 youth involved in 4-H horse and pony programs in 1994 and 13,000 youth members of the United States Pony Clubs.[1] Youth at risk for horse-related injury is much greater than these numbers suggest because many children who are involved with horse-related activities are not registered horse owners or members of equestrian organizations.

The American Horse Council estimates that there are 1.9 million horse owners in the United States. 3.6 million persons are involved in showing; 4.3 million in recreational activities. Approximately 619,400 persons are directly employed by the horse industry.[2]

The most common equestrian group receiving treatment for equestrian-related injury is young female riders.[3,4] It has not been determined whether this is attributable to the ratio of female to male youth riders or other factors.

Participants in a 1991 survey research study reported more girls than boys and more children involved in English style riding than Western wore helmets regularly. Reliable information on helmet use among occasional riders is not available.[5]

The most common cause of death and serious injury in all riders is head injury; the percentage of these injuries causing death and serious injury is higher in young riders.[3,6]

Cost of Injury

The cost of horse-related injuries among children and adults younger than 25 years seen in emergency departments in 1996 is estimated at over $88 million. The average cost per injury is estimated at $7,411.[6]

National Injury Estimates

In 1996, 25,446 emergency department visits were made by individuals in the U.S. younger than 25 years as a result of horse-related injuries.[7] The most common types of horse-related injury treated in emergency departments in 1996 to individuals in the U.S. younger than 25 years included contusions, fractures, and strains.[7]

In 1996, emergency department visits by individuals in the U.S. younger than 25 years involved in horse-related injuries involved head/neck (25%), upper body (55%), and lower body (20%).[8]

Selected Studies

Emergency department studies show that a high percentage of equestrian injuries tend to be serious in nature, with up to 38 percent (dependent upon study cited) resulting in hospitalization and 28 to 48 percent involving fractures.[3]

Most serious injuries to equestrians are caused by being separated from (e.g., propelled from or fall off) the horse while riding or by falling with the horse.[3]

Many children are injured during non-riding activities such as leading, grooming, and feeding.[9] In one study, 15 percent of the children hospitalized had been kicked by a horse.[10]

A population-based study in rural Wisconsin revealed that 30 percent of those under 19 years who sought treatment for horse-related injuries were injured while engaged in non-riding, horse-related activities. The injury rate for children in this study was 5.6 per 10,000 person years.[11]

The highest proportion of injury events resulting in multiple injuries occurred as a result of riding animals - a higher proportion than bicycling, in-line skating, or sports-related falls. [12]

In a review of all equestrian fatalities in Alberta, Canada, 1975-1990, 47.4 percent of the fatalities were younger than 20 years, with seven children (18.4 percent of total fatalities) younger than six years.[13]

A survey of 2,195 frequent riders showed a high prevalence of hospitalization and prolonged disability among injured equestrians.[14]

A study of 557 frequent riders younger than 25 years estimated an injury rate of 0.6 per 1,000 riding hours.[15] In contrast, the overall injury rate for persons age 15-24 years is 0.05 per 1,000 working hours.[5]

Related Issues

Approximately two-thirds the injuries were attributed to the horse's behavior, with "spooking" being the most common horse behavior. Additional primary causes were attributed to human behavior or practices.[15]

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MATERNAL AND CHILD HEALTH BUREAU MCHB HEALTH RESOURCES AND SERVICES ADMINISTRATION

Prevention

Consistent use of secured, ASTM* standard, SEI certified equestrian helmets will lead to a decrease in equestrian deaths and serious injuries.[3,9,13,14,17,19]

Bicycle helmets reduce traumatic brain injuries in bicyclists by 88 percent.[20] The effectiveness of ASTM/SEI equestrian helmets is estimated to be comparable.[17]

The American Academy of Pediatrics (AAP) recommend that young riders in all organizations and activities that promote or sanction horseback riding wear helmets that meet the 1988 ASTM testing standard as certified by SEI when riding horses.[21]

Young riders should be supervised and matched with horses appropriate for their levels of cognitive development and riding ability.[21]

*American Society of Testing Materials, ASTM F-1163
Safety Equipment Institute, SEI

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