

Unintentional Injury

FACT SHEET

Bicycle-Related Head Injuries

How large is the problem of bicycle-related head injury in the United States?

- In 1996, 757 bicyclists were killed in crashes with motor vehicles, down 8% since 1985 and 25% since 1975.¹
 - In 1996, bicyclists younger than 16 years old accounted for 32% of those killed in traffic crashes.¹
 - According to reports, 96% of bicyclists killed in 1996 were not wearing helmets.¹
 - Each year about 153,000 children get treatment in hospital emergency departments for bicycle-related head injuries.²
 - In 1991, societal costs associated with bicycle-related head injury or death resulting from head injury were more than \$3 billion.³
-

How well do bicycle helmets protect against head injury?

- Bicycle helmets have been shown to reduce the risk for head injury by as much as 85% and the risk for brain injury by as much as 88%.⁴
 - It is estimated that 75% of bicycle-related fatalities among children could be prevented if all children on bicycles wore helmets.⁴
 - Universal use of bicycle helmets by children aged 4 through 15 years old would prevent between 135 and 155 deaths, between 39,000 and 45,000 head injuries, and between 18,000 and 55,000 scalp and face injuries annually.⁴
-

How many bicycle riders wear helmets?

About 18 % of bicyclists wear helmets. Usage appears to be increasing. Just over half of current users began wearing a helmet during the past 3 years. Among frequent riders, helmet use appears to increase with age. Getting 50% of bicyclists to wear helmets is a national health goal for the year 2000.⁵

What methods are used to get bicyclists to wear helmets?

- Community education programs.
 - School-based education programs.
 - Laws requiring helmet use.
 - Discount coupons for bicyclists to buy helmets
 - Bicycle rodeos.
 - Advocacy of helmet use by admired sports figures.
 - "Tickets" for free merchandise given by police to unhelmeted riders if they buy a helmet.
-

Why don't more people wear helmets?

- Perhaps the most important reason people do not wear helmets is a lack of appreciation for the risk for head injury while bicycling and the effectiveness of helmets in preventing such injuries. Many riders believe they need not worry about being injured if they are not riding in traffic.
 - Among children, fear of peer derision is a key reason for not wanting to wear helmets.
 - Other reasons for not wearing a helmet include high cost, unattractive appearance, and lack of ventilation.
-

What is CDC doing about increasing helmet use?

- CDC develops and disseminates injury control recommendations on bicycle helmets.⁶
 - CDC gives grants to state health departments to implement and evaluate programs that promote helmet use.
 - CDC gives funds to special injury control centers to promote helmet use.
 - CDC collaborates with the National Highway Traffic Safety Administration and other federal agencies to promote bicycle safety.
 - CDC collaborates with SAFE KIDS and other private and voluntary agencies to promote helmet use and bicycle safety.
 - CDC provides funds for research to improve helmet design.
-

How many states have bicycle helmet laws?

- To date, 15 states and 56 localities have enacted some form of bicycle helmet legislation, most of which covers only young riders.⁷
-

If all bicyclists wore helmets, what would be the effect?

- One life would be saved every day.⁸
 - One head injury would be prevented every 4 minutes.⁷
-

What health care costs are associated with not wearing a bicycle helmet?

- Every bicycle helmet saves this country \$395 in direct health care costs and other costs to society.⁴
- If 85% of all child cyclists wore bicycle helmets for one year, the savings in medical costs would be between \$109 million and \$142 million.⁴

- A person who survives a head injury typically needs 5 to 10 years of intensive rehabilitation services. The estimated lifetime cost of these services may exceed \$4 million per injured person.⁴
-

What are some tips for preventing injuries while bicycling?

- Always wear a bicycle helmet everywhere you ride. A bicycle helmet is a necessity, not an accessory.
 - Wear a bicycle helmet correctly. A bicycle helmet should fit comfortably and snugly, but not too tightly. It should sit on top of your head in a level position, and it should not rock forward and back or from side to side. Always keep the helmet straps buckled.
 - Buy a bicycle helmet that meets or exceeds the safety standards developed by the American National Standards Institute (ANSI), the Snell Memorial Foundation, or the American Society for Testing and Materials (ASTM).
 - Learn the rules of the road and obey all traffic laws. Ride on the right side of the road, with the traffic not against it. Use appropriate hand signals. Respect traffic signals. Stop at all intersections marked and unmarked. Stop and look both ways before entering a street.
 - Restrict children to riding on sidewalks and paths until they are 10 years old, able to show good riding skills, and able to observe the basic rules of the road.
-

References

1. Insurance Institute for Highway Safety (IIHS). Facts 1996 Fatalities: Bicycles. Arlington (VA): IIHS, 1997.
2. Sosin DM, Sacks JJ, Webb KW. Pediatric head injuries and deaths from bicycling in the United States. *Pediatrics* 1996;98(5):868-70.
3. U.S. Consumer Products Safety Commission (CPSC). Bicycle-related head injury or death. Washington (DC): CPSC, 1994.
4. National Safe Kids Campaign (NSKC). Fact sheet on bicycle injury. Washington (DC): NSKC, 1997.
5. Public Health Service (PHS). Health People 2000: Midcourse Review. Washington (DC): PHS, 1996:88-95.
6. CDC. Injury Control Recommendations: Bicycle Helmets. MMWR 44(RR-1)1995.
7. Bicycle Helmet Safety Institute (BHSI). Mandatory helmet laws: summary. Arlington (VA): BHSI, 1997.
8. Sacks JJ, Holmgren P, Smith S, Sosin D. Bicycle-associated head injuries and deaths in the United States from 1984-1988. *JAMA* 1991;266:3016-8.

November 1997

[NCIPC Fact Sheets](#) | [CDC Home Page](#) | [CDC Search Page](#)

02.12.98