



Bicycle Injury Fact Sheet

National Facts:

Deaths and Injuries:

- In 2002, 130 children ages 14 and under died in bicycle-related crashes. Motor vehicles were involved in more than 90% of these deaths.
- In 2003, more than 373,000 children ages 14 and under were treated in hospital emergency rooms for bicycle-related injuries.
- In 2002, children ages 14 and under accounted for approximately 37% of bicyclists injured in motor vehicle crashes. It is estimated that collisions with motor vehicles account for nearly 90% of all bicycle-related deaths and 10% of all nonfatal bicycle-related injuries.
- More than 40% of all bicycle-related deaths due to head injuries and approximately three-fourths of all bicycle-related head injuries occur among children ages 14 and under.

When and Where Bicycle Deaths and Injuries Occur:

- Children are more likely to die from motor vehicle-related bicycle crashes at nonintersection locations (64%), during the months of May through August (47%) and between 3 p.m. and 6 p.m. (37%).
- Nearly 60% of all childhood bicycle-related deaths occur on minor roads. The typical bicycle/motor vehicle crash occurs within 1 mile of the bicyclist's home.
- Children ages 4 and under are more likely to be injured in nonstreet locations around the home (driveway, garage, yard) than are children ages 5 to 14.
- Children ages 14 and under are nearly four times more likely to be injured riding in non-daylight hours (e.g. at dawn, dusk or night) than during the daytime.
- Among children ages 14 and under, more than 80% of bicycle-related fatalities are associated with the bicyclist's behavior, such as riding into a street without stopping, turning left or swerving into traffic that is coming from behind, running a stop sign, and riding against the flow of traffic.

Who is at Risk

- Riding without a bicycle helmet significantly increases the risk of sustaining a head injury in the event of a crash. Nonhelmeted riders are 14 times more likely to be involved in a fatal crash than helmeted riders.
- Children under age 10 are at greater risk for serious injury and are more likely to suffer head injuries than older riders. Approximately half of all bicycle-related injuries among children under age 10 occur to the head or face, compared to one-fifth among older children.
- Bicyclists admitted to hospitals with head injuries are 20 times more likely to die than those without head injuries.
- Correct fit and proper positioning are essential to the effectiveness of bike helmets at reducing injury. One study found that children whose helmets fit poorly are at twice the risk of head injury in a crash compared to children whose helmet fit is excellent. In addition, children who wear their helmets tipped back on their heads have a 52% greater risk of head injury than those who wear their helmets centered on their heads.

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Helmet Effectiveness

- It is estimated that 75% of bicycle-related fatalities among children could be prevented with a bicycle helmet.
- Universal use of bicycle helmets by children ages 4 to 15 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.
- Bicycle helmets have been shown to reduce the risk of head injury by as much as 85% and the risk of brain injury as much as 88%.
- Children are more likely to wear a bicycle helmet if riding with others (peers or adults) who are also wearing one and less likely to wear one if their companions are not.

Connecticut Facts:

Deaths due to Bicycle Injury among Connecticut persons <20 years of age:

- Between 1995 and 2002, there were 13 deaths due to bicycle injury that is an average of 2 deaths per year.
- Of the 13 deaths. . .
 - 1 occurred among 5 to 9 year olds (7.7%)
 - 9 occurred among 10 to 14 year olds (69.2%)
 - 3 occurred among 15 to 19 year olds (23.1%)
 - the deaths were highest among boys 10 to 14 years of age

Hospital Admissions due to Bicycle Injury among Connecticut persons <20 years of age:

- Between 1995 and 2003, there were 1,231 hospital admissions due to bicycle injury, which is an average of 137 admissions per year.
- Of the 1,231 hospital admissions. . .
 - 48 occurred among toddlers 1 to 4 years olds (3.9%)
 - 342 occurred among 5 to 9 year olds (27.8%)
 - 613 occurred among 10 to 14 year olds (49.8%)
 - 228 occurred among 15 to 19 year olds (18.5%)

Emergency Department Visits due to Bicycle Injury among Connecticut persons <20 years of age:

- Between 1995 and 2003, there were 33,922 emergency department visits due to bicycle injury, which is an average of 3,769 visits per year.
- Of the 33,922 emergency room visits. . .
 - 2,261 occurred among 1 to 4 year olds (6.7%)
 - 10,982 occurred among 5 to 9 year olds (32.4%)
 - 14,867 occurred among 10 to 14 year olds (43.8%)
 - 5,811 occurred among 15 to 19 year olds (17.1%)

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Prevention:

Helmet Laws and Regulations:

- Currently, 17 states, the District of Columbia and numerous localities have enacted some form of bicycle helmet legislation, most of which cover only young riders.
- Various studies have shown bicycle helmet legislation to be effective at increasing bicycle helmet use and reducing bicycle-related death and injury among children covered under the law. One example shows that five years following the passage of a state mandatory bicycle helmet law for children ages 13 and under, bicycle-related fatalities decreased by 60%.
- A recent study reported that the rate of bicycle helmet use by children ages 14 and under was 58% greater in a county with a fully comprehensive bike helmet law than in a similar county with a less comprehensive law.

Health Care Costs and Savings:

- The total annual cost of traffic-related bicyclist death and injury among children ages 14 and under is more than \$2 billion.
- Every dollar spent on a helmet saves society \$30 in direct medical costs and other costs to society.
- If 85% of all child cyclists wore bicycle helmets in one year, the lifetime medical cost savings would total between \$109 million and \$142 million.

Prevention Tips:

- A bicycle helmet is a necessity, not an accessory. Always wear a bicycle helmet every time and everywhere you ride. 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. The helmet straps must always be buckled.
- Learn the rules of the road and obey all traffic laws. Ride on the right side of the road, WITH traffic, not against. Use appropriate hand signals, respect traffic signals, stop at all intersections (marked and unmarked), and stop and look both ways before entering a street.
- Cycling should be restricted to sidewalks and paths until a child is age 10 and is able to show how well she or he rides and observes the basic rules of the road.

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