

Fact Sheet: Bicycle Accidents

Background

- About 300 children are killed every year from bicycle accidents. (CPSC, 2008)
- About 600,000 people are hospitalized due to bicycle injuries, of those 400,000 are children. (CPSC, 2008)
- Children between the ages of 5 and 14 have the highest injury rate of all bicycles riders. In this age group bicycle accidents is the leading cause of accidental death. (CPSC, 2008)
- In 1997, 808 bicycles were killed from collisions with motor vehicles. Of those deaths 31% were children under the age of 16. (FHWA, 2008)
- Also in 1997, about 34% of the deaths occurred at intersections. Most of the deaths occurred in urban areas not rural areas. (FHWA, 2008)
- A major cause of injury and hospitalization is due to lack of helmet use.
- Another major cause of injury or death is from loss of control. This can happen from a number of different factors such as difficulty when braking, riding a bike of the wrong size (i.e. too large, or too small), riding too fast, riding double, doing tricks, foot slippage, hitting an object or pot hole, and also riding on slippery surfaces. (CPSC, 2008)
- Also mechanical and structural problems are a major cause of accidents. This can include but is not limited to failure of brakes, the wheels wobbling or falling off, wobbling of handle bars, chain slipping, or problems with shifting gears. (CPSC, 2008)

Statement of the Problem

- ❖ About 11% of non-motorists deaths were accounted by bicyclers in 2003.
(NHTSA, 2008)
- ❖ Parents are not informed enough of the seriousness of bicycle related injuries.
- ❖ Riding bicycles is a healthy and effective source of exercise and transportation.
More people are doing it but bicycling is not a main source of transportation.
- ❖ People in vehicles don't notice bicyclers as much. Therefore this causes high stress situations for bicyclers.
- ❖ More people are relying on bicycles for transportation. The percent since 1995 has doubled. (Healthy People 2010, 2008)
- ❖ People are riding their bicycles at night, which is not recommended. (CPSC, 2008)
- ❖ People are not avoiding main roads. (CPSC, 2008)
- ❖ People are not maintaining bicycle maintenance. (CPSC, 2008)
- ❖ People do not remain aware while riding. (CPSC, 2008)
- ❖ Above all people are not wearing their helmets. (CPSC, 2008)
- ❖ 97% of bicyclists killed in 1997 were not wearing their helmets. (FHWA, 2008)
- ❖ The CPSC has a Web site with tons of pages on bicycle safety and how to prevent bicycle accidents. Their goal is to make the world a better and safer place for bicyclists.

- ❖ Bicycle accidents are a problem especially for children between the ages of 5 to 16. These children shouldn't be have accidental injuries or deaths because of something as fun as a bicycle. It's a toy that everyone should be able to enjoy.

Epidemiological Picture of the Problem

- Most bicycle accidents occur during the summer, when it's more pleasurable to ride a bicycle. The peak hours for accidents are from 6 to 9 pm, which is followed by the times from 3 to 6 pm. (FHWA, 2008)
- Bicycle deaths rise rapidly once a child gets to be 5 years of age. The highest rate of death are among child of the ages are 11 and 14 years old. High rates of death are also known to occur between the ages of 12 to 13 and 16 years old. (FHWA, 2008)
- Death due to a bicycle accident is seven times more likely for a male than a female. (FHWA, 2008)
- Death of bicyclists over the age of 16 is becoming more and more common. Sixty-nine percent of deaths in 1997 were bicycle riders 16 and older. In 1975 the percent was thirty-two. (FHWA, 2008)
- More than one-third of the fatalities of bicyclist in 2003 had alcohol involved. (NHTSA, 2008)
- Most of the bicyclists killed in 2003 were male. The fatality rate for males was almost eight times as much for males than females in 2003. (NHTSA, 2008)
- For accidents that were intentionally caused, or caused by falling objects it is more likely to occur to teens between the ages of 15 and 19, young adults ages 20

to 24, and adults ages 25 to 44. These types of accidents are called weird.

(FHWA, 2008)

- For weird accidents 30% occurred under low light conditions. 24% were hit and run, and 24% were assault with a motor vehicle. (FHWA, 2008)
- Weird accidents are slightly more severe than the average however there are no deaths. These accidents are 66% more likely to happen in an urban area and 34% happened in rural areas. (FHWA, 2008)

Solutions to the Problem

- ❖ Consumer Product Safety Commission (<http://www.cpsc.gov/>)

The CPSC is here to protect us from unreasonable injuries or death from consumer products. The agencies jurisdiction is over more than 15,000 products. They are committed to the safety and protection of families and consumers from products that can cause fire, electrical, chemical or mechanical injury or can harm children. As one of these precautions the CPSC has produced a list of 10 easy steps to bicycle safety:

“10 SMART ROUTES TO BICYCLE SAFETY

1. Protect Your Head . . . Wear a Helmet.
2. See and Be Seen . . . Wear Bright Colors or Reflective Stripes.
3. Avoid Biking at Night.
4. Stay Alert . . . Keep a Lookout for Obstacles in Your Path.
5. Go with the Flow. . . Ride WITH Traffic.
6. Check for Traffic. . . Be Aware of Traffic Around You. (Intersections, Driveways).
7. Learn Rules of the Road . . . Obey Traffic Laws.
8. Assure Bicycle Readiness . . . Is Your Bicycle Properly Adjusted?
9. Can You Stop It?. . . Check Brakes Before
10. Check Your Wheels . . . “Quick Release” Wheels Should Be Securely Fastened. Riding.”

- ❖ Federal Highway Administration (<http://safety.fhwa.dot.gov/index.htm>)

The FHWA has a main goal of making roadways safer for everyone. This includes the safety of bicyclists on the road. With all the support from the customers, partners, stakeholders, and other Department of Transportation (DOT) agencies they are working to reduce the number of crashes and the severity of the crashes that occur on US roadways. The FHWA has engineering solutions to bicycle accident problems. In other words know of ways to design communities that are safer for bicyclists.

- ❖ National Highway Traffic Safety Administration

(<http://www.nhtsa.dot.gov/portal/site/nhtsa/menuitem.9fa154a4d39f02e770f6df1020008a0c/>)

The goal of NHTSA is similar to that of the FHWA because they are similar organizations. They want to make the roads safer for everyone including bicyclers and pedestrians. The organization was formed in 1966 because of automobile accidents. Since then they have outreached to many more causes other than just automobiles. They want drivers to be more aware of their surroundings and the people around them. They also want bicyclists to be more aware of the rules of the road and make logical decisions, such as wearing a helmet and not riding at night.

Additional Internet Sources

- Healthy People 2010. (2008) *Increase the number of States and the District of Columbia with laws requiring bicycle helmets for bicycle riders*. Retrieved April 2, 2008 from <http://www.healthypeople.gov/document/html/objectives/15-24.htm>

- National Crime Prevention Council. (1982) *Bicycle Safety*. Retrieved April 3, 2008, from <http://www.ncpc.org/topics/by-audience/parents/bicycle-safety>

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Bicycle Accidents (Class Handout)

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- 97% of bicyclists killed in 1997 were not wearing their helmets. (FHWA, 2008)

The Solution

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- (CPSC, 2008)