

# Transportation Safety

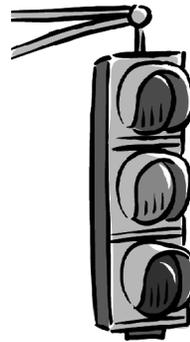
Transportation-related incidents are the leading cause of brain injury

## Motor Vehicle Safety



## School Bus Safety

- According to the National Highway Traffic Safety Administration (NHTSA), school transportation is one of the safest forms of transportation in the United States.<sup>1</sup>
- School bus crash data show that a federal requirement for seatbelts on buses would provide little, if any, added protection in a crash.<sup>1</sup>
- Rather than requiring seatbelts, NHTSA decided that the best way to provide crash protection to passengers is through a concept called “compartmentalization.” This requires that the interior of large buses provide occupant protection so that children are protected without the need to buckle up. Occupant crash protection is provided by a protective envelope consisting of strong, closely-spaced seats that have energy-absorbing seat backs.



- Motor vehicle crashes are the leading cause of death for 15-to 20-year-olds.<sup>2</sup>
- Seat belts are 57% effective in preventing traumatic and fatal brain injuries.<sup>3</sup>
- Brain and chest injuries are the most frequent cause of death in collisions without seatbelts.<sup>4</sup>
- According to NHTSA, over the past 10 years, safety belts have prevented approximately 55,600 deaths, 1,300,000 injuries and saved more than \$105 billion in economic costs.<sup>5</sup>
- Air bags, combined with lap/shoulder safety belts, offer the most effective safety protection available today for vehicle passenger occupants.<sup>6</sup>
- Children in rear-facing child seats should not be placed in the front seat of cars equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child seat could result in injury to the child.<sup>7</sup>
- Always place infants and children under 12 in the back seat of vehicles and be sure to have a rear-facing child safety seat installed properly.
- Never put an infant in the front seat of a vehicle equipped with a passenger-side air bag.

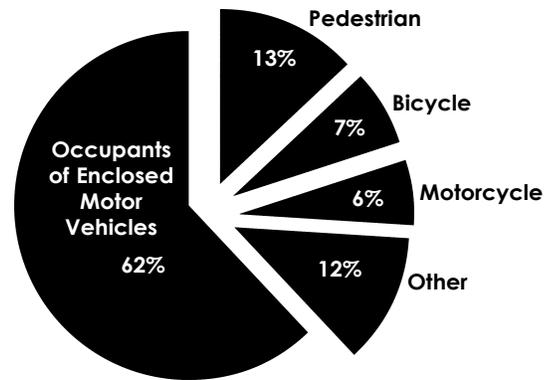
*This fact sheet was developed by the Brain Injury Association of America and is used with permission.*

# Percentage of Transportation Related TBI By Specific Cause<sup>5</sup>

- 1995-1996 - 14 States\*

\*Rhode Island, New York, Maryland, South Carolina, Minnesota, Missouri, Louisiana, Nebraska, Oklahoma, Utah, Arizona, Alaska and California (Sacramento County Only)

**Motor vehicle crashes are the leading cause of death for 15-to 20-year-olds.<sup>2</sup>**



## Pedestrian Safety

## Motorcycle Safety

- In 1996, 51% of motorcycle drivers between the ages of 15 to 20 who were fatally injured in crashes were not wearing helmets.<sup>8</sup>
- In 1999, 2,470 motorcyclists were killed and an additional 50,000 were injured in traffic crashes in the United States.<sup>9</sup>
- More than 80% of all motorcycle crashes result in injury or death to the motorcyclist.<sup>10</sup>
- A recent NHTSA study showed that motorcycle helmets are 67% effective in preventing brain injuries.<sup>11</sup>
- Brain injury is the leading cause of death in motorcycle crashes. Wearing a helmet can substantially reduce the severity of or prevent these injuries.
- A single motorcyclist who sustains a brain injury can cost a state more than \$2 million for care and support services over a lifetime.<sup>12</sup>



- 50,000 children are struck by a vehicle each year, often sustaining serious brain injuries.<sup>13</sup>
- In 1999, 4,906 pedestrians were killed in traffic crashes in the United States.<sup>14</sup>
- On average, a pedestrian is killed in a traffic crash every 107 minutes.<sup>14</sup>
- More than two-thirds of the 1999 pedestrian fatalities were males. The male pedestrian fatality rate per 100,000 population was more than double the rate for females.<sup>14</sup>
- Pedestrian injuries remain one of the leading causes of unintentional injury-related death among children.<sup>15</sup>
- Nearly one-third of 5 to 9 year-olds killed by motor vehicles are on foot. They are hit by cars most often when playing near the home.<sup>16</sup>
- Teach your children to look left, right, then left again before crossing and watch for turning cars.
- When walking after dark, reflective clothing should be worn.
- Pedestrians should refrain from wearing headphones when crossing roads and highways.

### Sources:

1. National Highway Transportation Safety Administration (NHTSA), School Bus Safety: Safe Passage For America's Children - Executive Summary, <http://www.nhtsa.dot.gov/people/injury/buses/schbus/schbussum.html> (February 23, 2001).
2. NHTSA, "Seatbelts on School Buses," <http://www.nhtsa.dot.gov/people/injury/buses/pub/seatbelt/hmp.html> (January 26, 2001)
3. Centers for Disease Control, "Leading Causes of Death," 1998.
4. Harlage LC, Rattan G. Brain Injury from Motor Vehicle Accidents. In Tempyer DJ, Harlage LC, Cannon WG (eds.) Preventable Damage: Brain Vulnerability and Brain Health. New York: Springer Publishing Company, 1992.
5. Maryland Community and Public Health Administration: Motor Vehicle Safety. [http://www.mdpublichealth.org/oidp/html/mtr\\_fac.html](http://www.mdpublichealth.org/oidp/html/mtr_fac.html) (January 26, 2001)
6. Brain Injury Update, June 1995; 10(6):45.
7. NHTSA, "The ABC's of Air Bag Safety," <http://www.nhtsa.dot.gov/people/injury/airbags/AirBagsR/Abgaftr.htm> (January 26, 2001)
8. NHTSA, Traffic Safety Facts 1996, Occupant Protection.
9. NHTSA, Traffic Safety Facts 1996 - Young Drivers, 1996.
10. NHTSA, Motorcycle Safety Facts 1999.
11. NHTSA, Motorcycle Helmets, The Facts of Life - Brochure, 1996.
12. NHTSA, Traffic Safety Facts 1996, Motorcycles
13. Advocates for Highway and Auto Safety, Advocates Press Release: Motorcycle Helmet Incentives, 1995.
14. Child Pedestrian Safety Program, Harborview Injury Prevention and Research Center, 1995.
15. NHTSA, Traffic Safety Facts: Pedestrians, 1999.
16. National Safe Kids Campaign - Pedestrian. [http://www.safekids.org/lier2\\_rl.cfm?folder\\_id=175](http://www.safekids.org/lier2_rl.cfm?folder_id=175) (January 26, 2001)
16. NHTSA, "Child Transportation Safety Tips - Kids on the Move," <http://www.nhtsa.dot.gov/people/injury/childps/newtips/tip11.html> (January 26, 2001)