

# Transportation-Related Injuries

## Overview

Motor vehicle crashes account for 99% of non-fatal transportation-related injuries as well as 94% of transportation-related deaths.<sup>1</sup>

Among police-reported traffic crashes, 2.3 million people were injured in 5.8 million motor vehicle crashes in 2008, including 37,261 who died.<sup>2</sup>

In 2008, more than 476,000 teens aged 15 to 19 were treated in hospital emergency departments for motor vehicle-related injuries<sup>3</sup> and 3,752 teens died in approximately 3,400 fatal crashes.<sup>4</sup>

During 2008, approximately 168,000 children ages 14 and younger were injured as passengers in motor vehicle crashes.<sup>5</sup>

Car crashes are the number one killer of teens. The majority of crashes are caused by driver errors due to inexperience. Teen drivers are more than four times as likely as older drivers to be in a motor vehicle crash.<sup>6</sup>

While fewer fatal crashes involve motorcycles, bicycles, and pedestrians, these transportation modes are more dangerous than traveling by car. Motorcyclists, bicyclists, and pedestrians are 58.3, 2.3, and 1.5 times, respectively, more likely to die in a crash on any given trip.<sup>7</sup>

## Costs and Impact

- Crashes involving teens ages 15-19 cost the United States nearly \$14 billion annually in medical care and productivity losses.<sup>8</sup>
- A critically injured survivor of a motor vehicle crash costs society an average of \$1.1 million. Medical costs and lost productivity make up 84% of this cost.<sup>9</sup>

- Over the last quarter century, seatbelts have prevented more than 135,000 fatalities and 3.8 million non-fatal injuries, saving \$585 billion in costs. However, the failure to wear seatbelts resulted in 315,000 deaths, 5.2 million nonfatal injuries, and \$913 billion in preventable medical costs<sup>9</sup> during this same time period.
- In 2008, 11,773 people died in alcohol impaired driving crashes, accounting for nearly one-third (32%) of all traffic-related deaths in the United States.<sup>10</sup>

## Employer Strategies for Prevention

- Hold regular seminars on driving safety for employees and their family members.
- Remind employees about the importance of wearing seatbelts and limiting distractions while driving (e.g., text messaging).
- Use the period before certain holidays (e.g., Labor Day, Memorial Day, Independence Day) to educate employees about the dangers of driving while impaired.
- Incorporate questions about driving safety into your organization's health assessment and follow-up materials.
- Educate parents on how to keep children and adolescents safe in motor vehicles.
- Use child safety seats for all children: child safety seats reduce the risk of death by 71% for infants and by 54% for toddlers.<sup>5</sup>
- Babies should be kept in rear-facing child safety seats until they reach the seat's height and weight limit. At a minimum,



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parents should keep babies rear-facing until they are at least 1 year old and 20 pounds.

- Children who outgrow a rear-facing safety seat should ride in a forward-facing car seat until they reach the seat's height and weight limit. It is best to keep children in a forward-facing seat until the limit is reached. Children usually reach this limit at age 4 and 40 pounds, but this may vary depending on the seat's weight limit.
- Children who outgrow a forward-facing safety seat should ride in a booster seat until a seatbelt fits correctly. A seatbelt fits correctly if the lap belt crosses the upper thighs and the shoulder belt fits across the chest. This usually occurs when a child is 4' 9" tall and 8 years of age.
- All children 12 and under should sit in the back seat of a vehicle.<sup>11</sup>
- Parents should restrict nighttime driving and limit the number of passengers allowed in the vehicle.<sup>12</sup>
- Educate employees and their teenage dependents on the rules of the road and their state's teen driving law before getting a license.

- Partner with health plans to ensure that motor vehicle injury counseling is a covered benefit and to encourage providers to educate their patients about motor vehicle safety. The American Academy of Family Physicians recommends that physicians counsel all parents and patients over the age of 2 years regarding child safety seats, seatbelts, bicycle safety and helmet use, motorcycle helmet use and not to drive while intoxicated.<sup>13</sup>
- Incorporate various communication methods to reach all members of a household about motor vehicle safety. These methods could include newsletters, home mailings, and bulletin boards/posters.

## Useful Resources

National Highway Traffic Safety Administration: [Driving Safety](http://www.nhtsa.gov).

Centers for Disease Control and Prevention: [Parents Are The Key](http://www.cdc.gov).



## References

<sup>1</sup> National Highway Traffic Safety Administration. 2020 report. <http://www.nhtsa.gov/nhtsa/whatis/planning/2020Report/2020report.html>. Accessed April 30, 2010.

<sup>2</sup> Traffic Safety Facts 2008: A compilation of motor vehicle crash data from the Fatality Analysis Reporting System and the General Estimates System. U.S. Department of Transportation; 2009. DOT-HS-811-170. <http://www.nrd.nhtsa.dot.gov/Pubs/811170.pdf>

<sup>3</sup> Web-based Injury Statistics Query and Reporting System. Atlanta, GA: US Department of Health and Human Services, CDC, NCIPC; 2010. <http://www.cdc.gov/injury/wisqars/index.html>

<sup>4</sup> Fatality Analysis Reporting System (FARS) query system: US Department of Transportation, NHTSA; 2010. <http://www-fars.nhtsa.dot.gov/QueryTool/QuerySection/SelectYear.aspx>

<sup>5</sup> *Traffic Safety Facts 2008: Children*. Washington, DC: NHTSA; 2009.

<sup>6</sup> Centers for Disease Control and Prevention. *Parents are the key*. <http://www.cdc.gov/parentsarethekey/>. Accessed April 19, 2011

<sup>7</sup> Beck LF, Dellinger AM, O'Neil ME. Motor vehicle crash injury rates by mode of travel, United States: Using exposure-based methods to quantify differences. *Am J Epidemiol*. 2007;166(2):212-218.

<sup>8</sup> Naumann RB, et al. Incidence and Total Lifetime Costs of Motor Vehicle-Related Fatal and Nonfatal Injury by Road User Type, United States, 2005. *Traffic Injury Prevention* 2010; 11(4):343-360.

<sup>9</sup> Blincoc LJ, et al. The economic impact of motor vehicle crashes, 2000. Washington, DC: National Highway Traffic Safety Administration; 2002.

<sup>10</sup> Traffic Safety Facts 2008: Alcohol-Impaired Driving. Washington

(DC): NHTSA; 2009. <http://www-nrd.nhtsa.dot.gov/Pubs/811155.PDF>. Accessed November 3, 2009.

<sup>11</sup> Centers for Disease Control and Prevention. *Protect the ones you love: road traffic injuries*. [http://www.cdc.gov/SafeChild/Road\\_Traffic\\_Injuries/](http://www.cdc.gov/SafeChild/Road_Traffic_Injuries/). Accessed May 4, 2010.

<sup>12</sup> American Academy of Pediatrics, Committee on Injury, Violence, and Poison Prevention. Policy statement: the teen driver. *Pediatrics*. 2006;118:2570-2581

<sup>13</sup> American Academy of Family Physicians. *Summary of policy recommendations for periodic health examinations, revision 5.1, April 2006*. <http://www.aafp.org/exam.xml>. Accessed May 26, 2009.

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