

Unintentional Childhood Injuries

By Erik Bondurant

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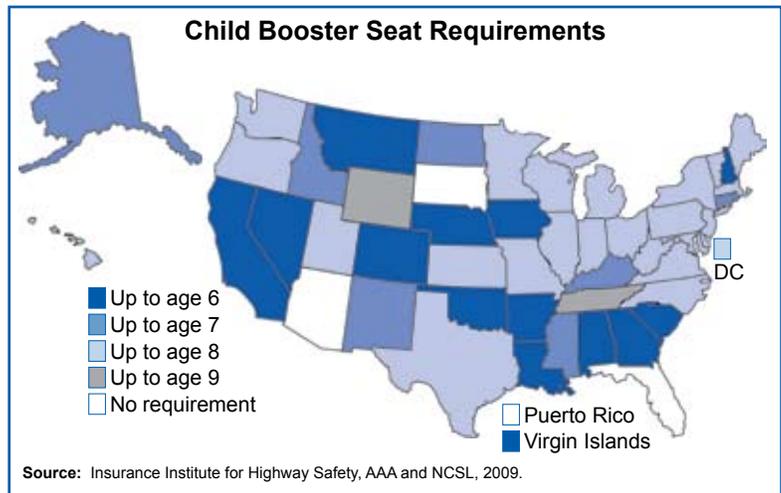
Booster seats can reduce serious injury to children.

Although unintentional injuries take a toll on people of all ages, children are particularly vulnerable due to their size, level of cognitive development and behavioral patterns. Unintentional injury, the leading cause of death for children under age 19, results in approximately 12,000 deaths annually. Nearly 9.2 million children are treated for non-fatal injuries each year, and the estimated annual direct and indirect costs of unintentional childhood injuries total \$300 billion, according to the Centers for Disease Control and Prevention (CDC). Some leading causes of unintentional injuries among children are falls, motor vehicle crashes, burns, poisoning and drowning.

Preventing Falls. Each year, 2.5 million children under age 19 are treated for fall-related injuries. Although supervision of children is the best way to prevent falls, some safety devices and standards can help reduce risks at home and outdoors. In the home, parents can use safety devices to keep their children safe, but some jurisdictions have made efforts to expand the use of certain safety products. In New York City, legislation requiring window guards in apartments with children under age 11, combined with an education and free distribution program—resulted in a 35 percent reduction in deaths due to falls from windows in the two years following enactment.

In addition to federal standards established by the Consumer Product Safety Commission, playground safety laws or regulations in at least 16 states include maintenance standards, restrictions on the height of equipment and requirements for the depth of surface material. Texas HB 4127, enacted in 2009, prohibits spending public funds on playground facilities that do not meet specified safety criteria.

Motor Vehicle Safety. Each year, 5,300 children under age 19 die in motor vehicle crashes and 471,000 are injured. The CDC recommends that all occupants wear seat belts and that infants ride in rear-facing child safety seats, children ride in forward-facing child safety seats from age 1 (and at least 20 pounds) to age 4, in booster seats until age 8 and remain in the back seat until age 13. Research estimates that every \$1 spent on child safety and booster seats saves \$32 and \$9, respectively, in medical and other expenses and lost productivity.



Although all states require children under age 4 to be in a child safety seat, three do not require use of a booster seat, and many do not require use up to age 8. Booster seats can reduce serious injury to children by 59 percent over a seat belt alone. In 16 states, children must sit in the back seat.

Fire and Burn Safety. Each year, 121,000 children under age 19 are treated for burns. Because children often are unable to escape a fire, it is important to prevent or mitigate them to prevent injuries. The National Fire Protection Association estimates 8,500 home fires were started by children in 2006. Due to novelty lighters' visual appeal to children, at least 13 states restrict their sale. Unextinguished cigarettes, another source of fires, has led to development of fire-safe (reduced propensity to burn when left unattended) cigarette laws that have been implemented or soon will be in 49 states and the District of Columbia. The risk posed by fires can be reduced by requiring smoke alarms or fire sprinklers in residences; more than three-fifths of home fire deaths occur in homes where there is no functioning smoke alarm. Every \$1 spent on a smoke alarm is estimated to save \$21 in fire damage and injuries, and many state and local ordinances or codes require alarms or sprinklers.

Children under age 5 also are at higher risk of being burned by scalding water. These burns can be reduced by setting water heaters at or below 120° Fahrenheit. Studies in *Injury Prevention* and *Pediatrics* show that laws such as North Carolina's, which requires new water heaters be preset at a lower temperature, are more effective than parental education alone.

Poisoning Prevention. Each year, 108,000 children under age 19 are treated for poisoning. Poison control centers play an important role in preventing and treating poisonings; doctors, pharmacists and registered nurses can treat more than 70 percent of poisonings by phone. The centers are especially helpful for children, since most childhood poisonings—commonly caused by cosmetics or personal care products—are accidental and non-fatal. According to the Institute of Medicine, every \$1 spent on poison control center services saves \$7 in medical spending.

All states, the District of Columbia, and five U.S. territories have at least one poison control center. Laws in at least 30 states outline operational guidelines or provide funding for poison control centers or poisoning prevention. Some states supplement funding with telephone service or license plate fees.

Water Safety. Drowning is the second leading cause of death for children ages 1 to 14. The federal Virginia Graeme Baker Pool and Spa Safety Act of 2007 established anti-entrapment standards for pool drain covers and required public pools to install them. The act also provides grants to states that pass comprehensive private pool safety laws that include drain covers and four-sided pool fencing requirements. At least nine states have enacted pool fence requirements, and three have enacted legislation to implement the act.

Forty-seven states and the District of Columbia require life jackets for children on recreational boats. The Coast Guard reports that 90 percent of those who drown while using a recreational water vehicle are not wearing a life jacket or personal flotation device. Coast Guard regulations require that children under age 13 wear life jackets while aboard a recreational boat in Coast Guard waters and where no state requirement exists.

Contacts for More Information

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CDC National Center for Injury Prevention and Control
www.cdc.gov/Injury/

NCSL webpage: Childhood Injury Prevention
www.ncsl.org/Default.aspx?TabId=14375

Pool Fencing Required

Arizona
California
Florida
Maine
Massachusetts
New York
Rhode Island
Texas
Virginia

Lowering water heater temperature can help prevent burns.

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