

Motor Vehicle Occupant Injury

- [Http: www.safekids.org](http://www.safekids.org)
- [Http: www.nhtsa.dot.gov](http://www.nhtsa.dot.gov)

The Facts

Motor vehicle crashes remain the leading cause of unintentional injury-related death among children ages 14 and under. Child safety seats and safety belts, when correctly installed and used, can prevent injury and save lives. Unrestrained children are more likely to be injured, to suffer more severe injuries and to die in motor vehicle crashes than children who are restrained.

Deaths and Injuries

- In 1999, 1,684 child occupants ages 14 and under died in motor vehicle crashes. Children ages 4 and under accounted for 33 percent of these childhood motor vehicle occupant deaths.
- In 2000, an estimated 248,000 children ages 14 and under were injured as occupants in motor vehicle-related crashes.
- In addition to physical trauma, motor vehicle injuries can have long-lasting psychological effects. One study showed that 25 percent of children, who suffered from traffic injuries, and 15 percent of their parents, were later diagnosed with post-traumatic stress disorder.
- As of October 1, 2001, 118 children have been killed by passenger air bags. 20 of these deaths were among infants in rear-facing child safety seats in front of a passenger air bag. More than 84 percent of all children killed by passenger air bags were either unrestrained or improperly restrained at the time of the crash.

When and Where Deaths and Injuries Occur

Seventy-five percent of motor vehicle crashes occur within 25 miles of home. In addition, 60 percent of crashes occur on roads with posted speed limits of 40 mph or less.

More than one-fifth of all traffic deaths among children ages 14 and under involve alcohol. Of the children killed in alcohol-related crashes, nearly half were passengers in vehicles with drunk drivers. Child restraint use decreases as both the age of the child and the blood alcohol level of the child's driver increase.

Rural areas have higher motor vehicle crash incidence rates and death rates than urban areas. In addition, crashes in rural areas tend to be more severe.

Who is at Risk?

Riding unrestrained is the greatest risk factor for death and injury among child occupants of motor vehicles. Among children ages 14 and under killed as occupants in motor vehicle crashes in 2000, 56 percent were not using safety restraints at the time of the collision.

Incorrect use of child safety seats is widespread. Although 96 percent of parents believe they install their child safety seat correctly, it is estimated that approximately 85 percent of children who are placed in child safety seats are improperly restrained.

The back seat is the safest place for children to ride. It is estimated that children ages 12 and under are 36 percent less likely to die in a crash if seated in the rear seat of a passenger vehicle.

It is estimated that one-third of children ride in the front passenger seat, many in front of passenger air bags. Children traveling with unbelted drivers, sole passengers, and those ages 6 and over are more likely to be seated in front.

Male children ages 1 to 14 have a fatality rate nearly one and a half times that of female children.

Black children ages 5 to 12 have a motor vehicle occupant death rate that is nearly three times that of white children.

The death rate from motor vehicle crashes for Hispanic children ages 5 to 12 is 72 percent higher than the rate for non-Hispanic children.

Restraint use is lower in rural areas and low-income communities. Lack of access to affordable child safety seats contributes to a lower usage rate among low-income families. However, 95 percent of low-income families who own a child safety seat use it.

Restraint Systems

Child safety seats are extremely effective when correctly installed and used in passenger cars, reducing the risk of death by 71 percent for infants and by 54 percent for children ages 1 to 4, and reducing the need for hospitalization by 69 percent for children ages 4 and under.

If all child passengers ages 14 and under were restrained properly, it is estimated that an additional 600 lives could be saved and 182,000 injuries could be prevented annually.

Adult safety belts do not adequately protect children ages 4 to 8 (about 40 to 80 pounds) from injury in a crash. However, it is estimated that 83 percent of children ages 4 to 8 ride improperly restrained in adult safety belts. Although car booster seats are the best way to protect them, only 19 percent of children who should be restrained in booster seats use them.

Safety restraints afford the greatest protection against ejection from a vehicle during a crash. Nearly three-quarters of occupants who are totally ejected from passenger vehicles during fatal crashes are killed.

Child Occupant Protection and Safety Belt Use Laws

All 50 states, the District of Columbia and all U.S. territories have child occupant protection laws, which vary widely in their age requirements, exemptions, enforcement procedures and penalties. These laws typically require only children ages 3 and under to ride properly restrained. See recommended occupant protection chart below.

Only 17 states and the District of Columbia, representing 52 percent of the U.S. population, currently have primary (standard) enforcement safety belt laws. States with primary laws average 15 percentage points higher in restraint usage rates than those with secondary laws, in addition to lower fatality and injury rates. A study in Louisiana found that child restraint use increased from 45 percent to 82 percent in the two years following the passage of the state's primary enforcement law for adult safety belts.

Child occupant protection and safety belt use laws are proven effective at increasing restraint use. Ninety percent of Americans favor stronger enforcement of laws that require all children to be buckled up.

Health Care Costs and Savings

The total annual cost of motor vehicle occupant-related death and injury exceeds \$11 billion for all children ages 14 and under.

Every dollar spent on a child safety seat saves this country \$32.

Prevention Tips

- Always use child safety seats and/or safety belts correctly every time you ride. Restrain children ages 12 and under in a back seat. Read your child safety seat instruction manual and your motor vehicle owner's manual for directions on proper installation.
- Infants, until at least 1 year old and at least 20 pounds, should be in rear-facing child safety seats. Never put a rear-facing infant or convertible safety seat in the front passenger seat of a vehicle with an active passenger air bag.
- Children over 1 year old and between 20 and 40 pounds should be in forward-facing child safety seats. In addition, children ages 4 to 8 (about 40 to 80 pounds) should be in a car booster seat and restrained with a lap/shoulder belt every time they ride.
- Call the National Highway Traffic Safety Administration's Auto Safety Hotline, (888) 327-4236, to inquire about any recalls or safety notices on your child safety seat.

Carlisle residents seeking assistance with a car seat are encouraged to contact Inspector Scott Barnes or *any* local police department to *schedule* an appointment with a C.P.S. technician. Appointments last approximately one hour and are designed to educate the parent on the correct installation of the car seat. (This is not merely an installation only service)

Proper Child Safety Seat Use Chart

Buckle Everyone. Children Age 12 and Under in Back!

	INFANTS	TODDLER	YOUNG CHILDREN
WEIGHT	Birth to 1 year at least 20-22 lbs.	Over 1 year and Over 20 lbs.-40 lbs.	Over 40 lbs. Ages 4-8, unless 4'9".
TYPE of SEAT	Infant only or rear-facing convertible	Convertible / Forward-facing	Belt positioning booster seat
SEAT POSITION	Rear-facing only	Forward-facing	Forward-facing
ALWAYS MAKE SURE:	Children to one year and at least 20 lbs. in rear-facing seats Harness straps at or below shoulder level	Harness straps should be at or above shoulders Most seats require top slot for forward- facing	Belt positioning booster seats must be used with both lap and shoulder belt. Make sure the lap belt fits low and tight across the lap/upper thigh area and the shoulder belt fits snug crossing the chest and shoulder to avoid abdominal injuries
WARNING	All children age 12 and under should ride in the back seat	All children age 12 and under should ride in the back seat	All children age 12 and under should ride in the back seat