

Motor vehicle accidents are the *leading cause of injury-related death* for Colorado children ages 0-14 and the *second leading cause of injury-related hospitalization* for Colorado children ages 0-14. Motor vehicle injuries one of the top five leading causes of hospitalization and death due to a traumatic brain injury.

In 2010, the child restraint usage was 85% for Colorado children.¹ For infants, child restraints have been found to reduce fatal injury by 71% and by 54% for toddlers.¹ However, 73% of child restraints are incorrectly installed which increases injury rates for children.¹ If children are not properly installed in the appropriate child restraint for their size, they can slip out of an adult seat belt, suffer serious internal injuries from the seat belt, or be fully ejected from the vehicle in an accident. The following graph demonstrates the percentages of fatalities by the day of the week and by age group.

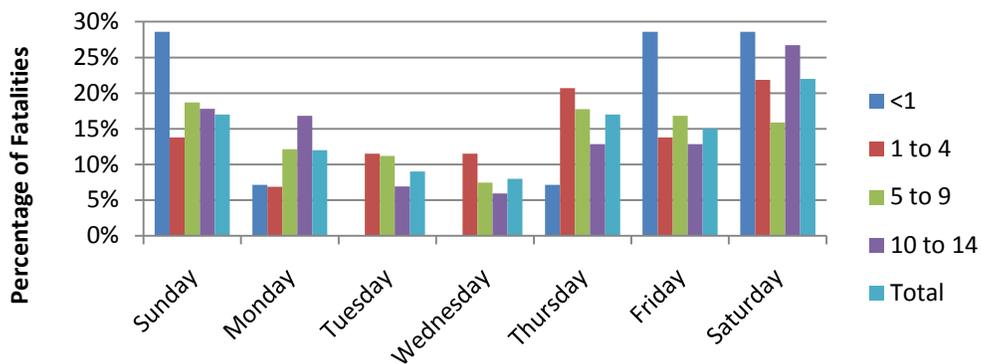
**Table 1:
Hospitalization Rates from
Motor Vehicle Accidents by
region, Colorado Children,
ages 0-14, 2007-2009**

CO Region	Rate per 100,000 (Total #)	% with a TBI
San Luis Valley	33.0 (10)	40.0%
Southern	30.4 (39)	41.0%
Southeast	23.1 (7)	42.9%
Southwest	20.6 (10)	*
Northwest	19.7 (29)	44.8%
Northeastern	17.5 (66)	42.4%
Western	16.0 (9)	55.6%
Central Mountain	11.5 (9)	*
Plains to Peaks	10.9 (43)	48.8%
Mile High	9.9 (131)	41.2%
Foothills	9.8 (45)	42.2%

*Indicates a rate based on fewer than 3 events in the category.

Motor vehicle accident injury rates in rural Colorado counties are significantly higher than in urban and suburban Colorado counties.² In addition, crashes in rural areas are often more severe.

Motor Vehicle Fatalities, 2007-2009, Colorado Children ages 0-14¹



- Motor vehicle injuries account for 10% of all unintentional injury hospitalizations and 41% of deaths caused by unintentional injuries for Colorado children ages 0-14 (2007-2009).
- 42% of hospitalizations caused by motor vehicle occupant injuries for Colorado children ages 0-14 resulted in a traumatic brain injury and 1.5% resulted in death (2007-2009).
- 47% of motor vehicle occupant hospitalizations for Colorado children ages 0-14 were unrestrained in the vehicle (2002-2003).³
- 26% of motor vehicle occupant hospitalizations for Colorado children ages 0-14 occurred in a non-traffic situation, such as on non-public highways, in parking lots, or driveways.³
- The summer months (June-August) have the highest percentages of fatalities for Colorado children ages 0-14 with August being the highest at 14% of fatalities.¹
- Overall, boys have a higher rate of hospitalization due to motor vehicle occupant injuries than girls, ages 0-14 (16.0 vs. 10.5 per 100,000) while the death rate is similar for boys and girls (2.8 vs. 2.3 per 100,000) and the TBI diagnosis is also similar for boys and girls (40.5% vs. 44.3%).

Table 2: Motor Vehicle Occupant Injuries, Colorado Children, ages 0-14, 2007-2009

	<1	1-4	5-9	10-14	Total (0-14)
Hospitalization Rate per 100,000	5.2	9.6	11.2	20.6	13.3
Death Rate per 100,000	3.3	1.6	2.4	3.4	2.6
% with a TBI	72.7%	39.0%	34.5%	45.8%	42.0%

Motor Vehicle Injuries for Colorado Children | 2010

Hospitalizations and deaths due to motor vehicle occupant injuries have been steadily decreasing for Colorado children since 1995.

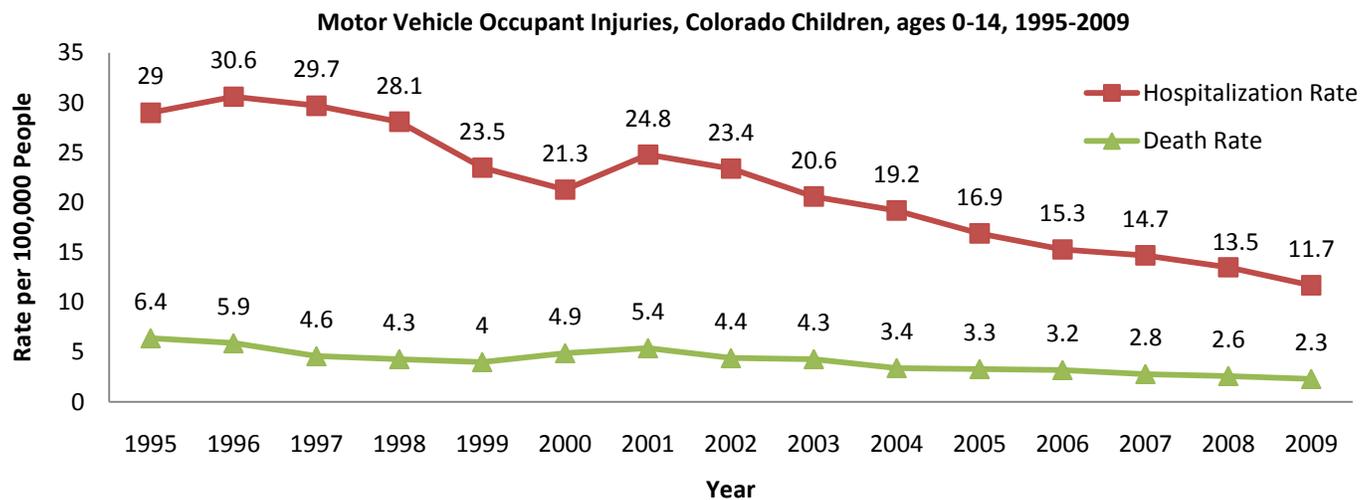


Table 3: Percentage of Child Passengers Unrestrained in Fatal Crashes, 1997-2006, United States¹

	0-4 years	5-7 years	8-12 years
Driver Unrestrained	63%	77%	85%
Driver Restrained	25%	34%	39%

- The likelihood of a child being unrestrained in a motor vehicle increases 38-46% (based on age) if the driver is unrestrained³.
- Children ages 8-12 have the highest risk of riding unrestrained.

Prevention of Motor Vehicle Injuries

- Promote the American Academy of Pediatrics (AAP) best practice recommendations for child passenger safety. Note: AAP recommendations differ from Colorado law. Colorado law requires children to be in a rear-facing child restraint until 1 year AND 20 pounds and all children to be in a child restraint until the age of 8. AAP recommendations are as follows:
 - Children should be in a rear-facing child restraint until the age of 2 or to the highest weight limit of the seat.
 - Children should remain in a forward-facing child restraint until they reach the upper weight limit of the seat.
 - Children under 57 inches should use a booster seat with the lap and shoulder belt.
 - Children under the age of 13 should ride in the rear seat of the vehicle.
- Every person riding as an occupant in a motor vehicle needs to be restrained at all times. Children will model the behavior of adults; therefore, adults should be encouraged to always use their seat belt to protect themselves.
- Establish car seat inspection stations and hold inspection events to educate parents about child passenger safety and proper child restraint installation. Encourage community members to become certified child passenger safety technicians.
- Develop a program to distribute child restraints to families with an education component to promote child passenger safety best practices. Develop specific messages for each target audience.
- Support increased enforcement and legislation of seatbelt and child safety seat laws, graduated driver's license laws, and impaired driving laws.²

For Additional Information

American Academy of Pediatrics: <http://www.aap.org/healthtopics/carseatsafety.cfm>
 Car Seats Colorado: www.carseatscolorado.com
 CDC Injury Fact Book: www.cdc.gov/Injury/publications/FactBook/InjuryBook2006.pdf
 CDPHE: www.cdphe.state.co.us/pp/injuryprevention/motorvehicle.html
 Childhood Best Practices: www.colorado.gov/bestpractices
 Colorado Department of Transportation: www.coloradodot.info/programs/seatbelts-carseats
 National Highway Traffic Safety Administration: www.nhtsa.gov

References

All data is from the Colorado Department of Public Health and Environment, Colorado Health Information Dataset. Available at: www.cdphe.state.co.us

¹National Highway Traffic Safety Administration, 2006 Motor vehicle Occupant Protection Facts, Fatality Analysis Reporting System (FARS). Available at www.nhtsa.gov

²Colorado Department of Public Health and Environment, Colorado Health Information Dataset. Available at: www.cdphe.state.co.us

³Colorado Department of Transportation. Available at www.coloradodot.info/programs/seatbelts-carseats