



FAMILY

Child Restraint in Automobiles

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Quick Facts...

Colorado law requires children under age 16 to wear seat belts while riding in either the front or back seat of a motor vehicle.

The most dangerous place for a child in a car is on your lap or in your arms.

Children are 95 percent less disruptive in a car when they are in a restraint system.

If the car is equipped with a passenger-side airbag, always install infant and car seats (facing the rear) in the back seat of the car.

Do you worry about Sudden Infant Death Syndrome, cancer, fires, pneumonia, drowning? You've missed the one thing that kills more children than all these combined: the automobile. Once a baby is beyond the critical early weeks, automobile accidents are the leading cause of death in childhood, claiming more lives than any disease or other accidental cause. Thousands of children are killed every year as passengers in automobiles. Many more are injured or permanently disabled.

A spokesman for the American Academy of Pediatrics said, "We see to it that all children are immunized against preventable diseases. The 'vaccination' to combat infant and child car deaths is the proper use of car safety seats and belts."

The Law

Colorado's new booster seat law means changes for parents and caregivers transporting children. This new law went into effect on August 1, 2003. The law is a tremendous step forward in protecting young children involved in traffic crashes. Booster seats provide an essential transition for children too big for child safety seats they have outgrown and too small for seat belts. The booster seat law is a new provision added to Colorado's child passenger safety law. It requires children who weigh over 40 pounds or are at least four years old to be properly restrained in a child booster seat or with a child safety belt-positioning device. Children must ride in booster seats until they are six years old or 55 inches tall.

The Risk

Inspections conducted across the state show that more than 90 percent of Colorado's children are riding at risk in improperly installed child safety seats. There is tremendous consumer misunderstanding of crash dynamics. Many parents and caregivers frequently do not understand how child safety seats and seat belt systems are designed to work in emergency situations. Misuse of child safety seats is so common, one can assume that it can be found to some degree in any vehicle that has a child inside.

Multiyear accident studies in Michigan and Washington has shown that not a single child properly restrained in a safe car seat has been fatally injured. The American Academy of Pediatrics estimates that 91 percent of fatalities and 78 percent of injuries could be avoided if children were secured in approved seat restraints.

In a 30-mile-per-hour crash, a 7-pound infant becomes a 210-pound weight. The unrestrained infant will hit the dashboard with the force of a fall from a three-story building.

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Myths Adults Must Give Up

Myth: Seat belts and child restraints are important only for long highway trips.

Fact: Statistics from the state of Washington indicate the need for restraint use at all times. In a three-year study, it was found that fatal accidents involving young children usually occurred under ordinary conditions on dry roads at low speeds during daylight hours and were not related to alcohol usage.

Myth: You can safely hold a child on your lap while traveling in a car.

Fact: In a series of tests at the Highway Safety Research Institute in Michigan, male and female adult volunteers were fastened to a seat with lap and shoulder belts. Each was then subjected to simulated 15- and 30-mile-per-hour impacts. Not one of the volunteers was able to hold onto a lifesize doll. Even knowing the precise moment of impact and using all their strength, the doll was ripped from their arms and slammed into the dashboard.

A second study, sponsored by the Insurance Institute for Highway Safety in Washington, D.C., shows what happens to infants held in the arms of adults who were not using proper restraining devices. In this test, a 1979 four-door Chevy Malibu was driven into a solid barrier at just 24 miles per hour. The second major cause of death and injury to children in cars is being crushed by unrestrained adults. The most dangerous place in a car for a child is on your lap or in your arms.

Myth: You will be killed by fire or drowning if you are belted in the automobile.

Fact: It is much safer to stay inside an automobile than be thrown from it. Even when there is fire or submersion in water, a seat restraint reduces the risk of incapacitating injury and increases the chance of remaining conscious and escaping the vehicle.

Proper Use of Restraints

Airlines routinely include an important survival principle in their emergency instructions. Adults should put on their own oxygen masks before assisting their children with theirs.

The principle underlying this instruction is that adults can help a child only if they can function themselves. That principle also applies to the use of seat restraints in automobiles. An adult not wearing a seat belt may be seriously injured and be unable to assist an injured child. Adults who wear seat belts set a good example, protect their ability to help an injured child, and prevent possible injury to others by the impact of their unrestrained body.

Children of different sizes need different types of seat restraints. Small children need restraints that distribute crash forces over a larger portion of their bodies. The restraint should provide good support for the head and neck to guard against whiplash injuries.

Never put a lap belt around both an adult and a child held on the lap. The adult's weight when forced forward by a sudden impact would press the belt into the child and could cause serious injury.

Children who weigh 20 to 40 pounds are safest when riding in restraint systems that use a five-point harness or a large shield to protect the child. Infants up to 20 pounds should travel in rear-facing, semireclined restraints anchored with lap belts. Some authorities believe there is no other way to safely transport children of this size. Safety advocates recommend that infants continue riding in a rear facing position as long as possible for the best protection in a crash. Many larger convertible type child safety seats will allow children to ride rear facing up to 30 or 35 lbs.

The first rule of child restraint is: Adults who drive with children must use their own seat belts.

- *The law requires infants to ride in a rear-facing child safety seat until they are at least one year old and weigh at least 20 lbs.*

- *Colorado law requires children ages one to four years who weigh 20 lbs. up to 40 lbs. be restrained in a forward-facing child safety seat.*

- *Children who weigh over 40 lbs. or are at least four years old must be properly restrained in a child booster seat or with a child safety belt-positioning device.*

- *Colorado law states that children must ride in booster seats until they are six years old or 55 inches tall.*

There are many car restraint choices for children weighing 40 to 60 pounds. While Colorado law requires older children to be restrained in booster seats until they are six years old or 55 inches tall, Safety Advocates recommend keeping children in booster seats until they are about 57 inches tall. The preferred restraints are a lap/shoulder belt if proper fit can be maintained, or a booster seat used with a lap/shoulder belt. If your car has only lap belts in the rear, a booster seat is the next recommended choice. It is recommended that proper seat belt fit is achieved when the child meets the 5-Step Test:

1. The child can sit all the way back against the auto seat.
2. The child's knees bend comfortably at the edge of the auto seat.
3. The belt crosses the shoulder between the neck and arm.
4. The lap belt is as low as possible touching the thighs.
5. The child can stay seated like this for the whole trip.

Once you switch your child to seat belts, remember that a lap/shoulder belt offers more protection than a lap belt alone. The shoulder belt prevents forward motion in a head-on crash.

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Selection and Installation

When shopping for restraints, the following guidelines are important:

- Purchase only restraints manufactured after January 1, 1981. These restraints have been dynamically tested in a simulated crash.
- Purchase a restraint that fits your child's present height and weight.
- Read all instructions for installation and use. Ask for a demonstration of proper use if you are unsure. Be sure the restraint you choose will fit your automobile. If the seat you choose requires a top anchor strap, it is absolutely essential that the top anchor strap be installed properly. Installing the bracket and anchor strap necessary for proper function of the seat often is the only thing that makes the seat safe. Some child restraints are secured by a standard lap belt through or around the child restraint. Follow the manufacturer's instructions exactly for the restraint you purchase.
- Choose a seat that is comfortable, durable and easily cleaned.
- Restraints are expensive. If you cannot purchase the correct seat for your child, call your local hospital or medical society for information about child restraint loan programs. Restraints purchased at garage sales often are in poor, unsafe condition and rarely come with installation or use instructions. Surveys have shown that three out of four safety seats are not used correctly.
- The child restraint must have a label that states it meets Federal Motor Vehicle Safety Standards (FMVSS) 213.

To find out whether a child's safety seat has been recalled, call the U.S. Department of Transportation at (800) 424-9393. Be prepared to give: the name of the seat manufacturer, the name of the seat, and the model number or the year the seat was purchased. Colorado Department of Transportation (CDOT) and the Colorado State Patrol (CSP) have resources available with more information and to answer additional questions. A new website at www.carseatscolorado.com has information about the law as well as tips and information about using car seats and seat belts properly for all stages of a child's growth. In addition, parents can call the CSP at (303) 239-4625 or 1-877-LUV-TOTS (1-877-588-8687). Brochures about the law are also available from both CDOT and CSP.

Studies support the conclusion that the major factor affecting correct use of seat belts by children is use by the parent.

Children's Use of Restraints

Research at the University of Kansas Medical Center showed that children restrained by safety seats or belts were 95 percent less disruptive than unrestrained children. If children are not restrained, they will move around freely

in the car, distracting the driver. When the child is not supported in a restraint, the child can roll or fall off the seat when the vehicle makes sudden stops or sharp turns. If children are not able to see out the window, they may become bored and disruptive.

Suggestions for Adults with Child Passengers

- Start off right by using a child restraint when you bring your newborn home from the hospital. Infants enjoy warmth, motion and security. The first ride can provide all of those if you use a rear-facing car seat for your newborn. Some physicians write a formal prescription for a seat restraint for a newborn.
- Tell children what you want them to do rather than what they should not do. For example, say, “I want you to sit quietly while I fasten your belt. If you watch carefully, you will soon be big enough to buckle up yourself.”
- If a child is making the first trip in a car seat, make it a happy time. Explain the rules for riding in the car: “Everyone in this car wears a seat belt.” Be positive. Say “We are going for a ride and we will have a good time.” Point out exciting things the child can now see because of the height of the safety seat. Keep the first ride a short one.
- Children who are not used to riding in a seat restraint will probably resist efforts to secure them. If children struggle, beg or yell, maintain a firm, calm attitude and don’t argue. Keep the child in the seat. If you must, stop the automobile in a safe place and give all your attention to calming the child. Distract the child with a soft toy, book or doll. Tell the child, “This car does not move until all belts are fastened.” If the child attempts to climb out of the seat or release the buckle, say “No” in a firm, calm voice.
- Remember, praise works better than punishment. Be aware of every positive move the child makes toward using the seat restraint. Praise liberally and immediately. For example, say, “You are sitting so quietly today. Daddy is happy that you can do that. I’ll bet you’re proud that you can do it.” Brag about good behavior to other significant people — and be sure the child hears you do it.
- When riding for long periods, make frequent stops to give children the chance to move about and let off steam. Even infants like to stretch and kick. Stop only in safe rest areas off the roadway.
- A study of fifth grade children found that the child’s identification with the parent and the parent’s instruction to the child to “buckle up” are significant factors in the child’s use or nonuse of seat belts. Other studies support the conclusion that the major factor affecting correct use of seat belts by children is use by the parent. Set a good example and see that all riders, adults and children, wear seat belts. You may need to explain to other adults riding in your automobile that your children need to see good examples of seat belt use.

Child Restraint Law Enforcement

Booster Seats

The booster seat portion of the law is secondary enforcement, meaning a driver must be stopped for another driving offense before they can be ticketed for a violation of the booster seat provision.

Infant Seats, Child Safety Seats and Seat Belts

The infant seat, child safety seat and seat belt provisions of the law are primary enforcement, meaning the driver can be stopped and ticketed if an officer sees an unrestrained or improperly restrained child in the vehicle.

Fine

The minimum fine is \$58.80 for violations of Colorado’s CPS law. The driver can be fined for each unrestrained child in the vehicle. The law applies to children being transported in a privately owned noncommercial vehicle and in noncommercial vehicles operated by childcare centers.

Children must be buckled up in the front and back seats on every trip.

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