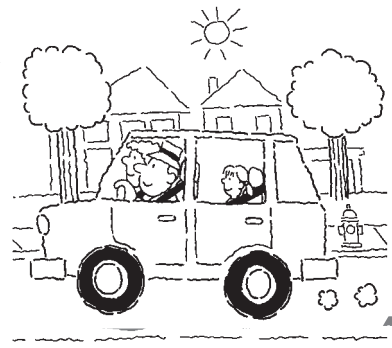


Car Safety Seats:

A Guide for Families

Part I 2005 Safety Information



Each year hundreds of young children are killed in car crashes and thousands more are injured seriously enough to go to the emergency room. Using car safety seats and seat belts correctly is the best way to prevent this from happening to your child. This brochure explains how.

Which car safety seat is the best?

No one seat is the “best” or “safest.” The “best” seat is the one that fits your child’s size, is correctly installed, and is used properly every time you drive. When shopping for a car safety seat, keep the following in mind:

- Price doesn’t always matter. Higher prices can mean added features that may or may not make the seat easier to use.
- When you find a seat you like, try it out. Put your child in it and adjust the harnesses and buckles. Make sure it fits in your car. Follow the instructions that came with the car safety seat.
- Keep in mind that pictures or displays of car safety seats in stores may not show them being used the right way.

Rear-facing seats

All infants should ride rear-facing until they have reached at least 1 year of age *and* weigh at least 20 pounds. That means that if your baby reaches 20 pounds before her first birthday, she should remain rear-facing until she turns 1 year old. There are 2 types of rear-facing seats: infant-only seats and convertible seats. Following are some important features of both:

Infant-only seats

- Small and portable (sometimes come as part of a stroller system).
- Have a 3-point or 5-point harness.
- Can only be used for infants up to 20 to 22 pounds, depending on the model.



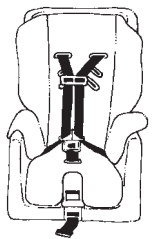
Infant-only car safety seat

- Many come with a detachable base, which can be left in the car. The seat clicks in and out of the base, which means you don’t have to install it each time you use it.
- Most have carrying handles.

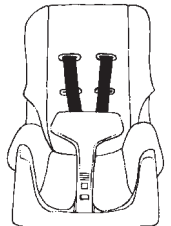
Convertible seats

- Bigger than infant-only seats.
- Can also be used forward-facing for older and larger children, therefore these seats can be used longer.
- Many have higher rear-facing weight limits than infant-only seats. These are ideal for bigger babies.
- Have the following types of harnesses:
 - **5-point harness**—5 straps: 2 at the shoulders, 2 at the hips, 1 at the crotch
 - **T-shield**—A padded t-shaped or triangle-shaped shield attached to the shoulder straps
 - **Overhead shield**—A padded tray-like shield that swings down around the child

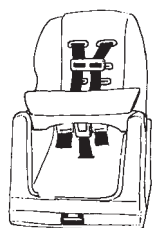
5-point harness



T-shield



Overhead shield



Other features to look for in rear-facing seats

- **Harness slots.** Look for seats that come with more than one set of harness slots to give your growing baby more room. The harness should be in the slots at or below your baby’s shoulders. Check the manufacturer’s instructions to be sure.
- **Adjustable buckles and shields.** Many rear-facing seats have 2 or more buckle positions for growing babies. Many overhead shields can be adjusted as well.
- **Other features.** Angle indicators, built-in angle adjusters that help you get the proper recline, and head support systems are other features that are made to help you install the seat the right way.

Important safety rules

- Always use a car safety seat, starting with your baby’s first ride home from the hospital.
- Never place a child in a rear-facing car safety seat in the front seat of a vehicle that has an airbag.
- The safest place for all children to ride is in the back seat.
- Set a good example—always wear your seat belt. Help your child form a lifelong habit of buckling up.
- Remember that each car safety seat is different. Read and keep the instructions that came with your seat.
- Read the owner’s manual that came with your car on how to correctly install car safety seats.

Forward-facing seats

Once your child is at least 1 year of age *and* is at least 20 pounds, he can ride forward-facing. However, it is best for him to ride rear-facing until he reaches the highest weight and height limits allowed by the car safety seat. There are many types of seats that can be used forward-facing, including convertible seats, forward-facing only seats, and combination forward-facing/booster seats.

As mentioned, convertible seats can be used forward-facing. However, if you have used your convertible seat rear-facing, you need to make 3 adjustments before using it forward-facing.

1. Move the shoulder straps to the slots that are at or above your child's shoulders. On many convertible seats, the top harness slots must be used when the seat is in the forward-facing position. Check the instructions to be sure.
2. Move the seat from the reclined to the upright position if required by the manufacturer of the seat.
3. Make sure the seat belt runs through the forward-facing belt path.



Forward-facing seat

Built-in forward-facing or booster seats are available in some cars and vans. Weight and height limits vary. Check with your vehicle manufacturer for details about how these seats are used.

Booster seats

Your child should stay in a car safety seat with a harness as long as possible and then ride in a belt-positioning booster seat. You can tell when your child is ready for a booster seat when one of the following is true:

- She reaches the top weight or height allowed for her seat.
- Her shoulders are above the harness slots.
- Her ears have reached the top of the seat.

Booster seats are designed to raise your child so that the lap/shoulder belt fits properly. This means the lap belt lies low across your child's thighs and the shoulder belt crosses the middle of your child's chest and shoulder. Correct belt fit helps protect the stomach, spine, and head from injury. Both high-backed and backless models are available. Booster seats should be used until your child can correctly fit in a lap/shoulder seat belt (see "Seat belts").

Some car safety seats combine the features of a forward-facing seat and a booster. These seats come with harness straps for children who weigh up to 40 to 50 pounds (depending on the model). Once your child reaches the weight and height limits, you can use the seat as a booster by removing the harnesses and using your vehicle's lap/shoulder belts. Keep in mind that when using the harness straps, the seat can be secured with a lap/shoulder



Belt-positioning booster seat

belt or a lap-only belt. However, once you remove the harness, you *must* use a lap/shoulder belt.

If your car only has lap belts or your child has behavioral problems, a travel vest may be an option. See the product list at the end of this brochure for types of travel vests.

Seat belts

Your child is ready to use a seat belt when the belt fits properly. This means

- The shoulder belt lies across the middle of the chest and shoulder, not the neck or throat.
- The lap belt is low and snug across the thighs, not the stomach.
- The child is tall enough to sit against the vehicle seat back with his legs bent at the knees and feet hanging down and can stay in this position comfortably throughout a trip.

Remember, seat belts are made for adults. If the seat belt does not fit your child correctly, he should stay in a booster seat until the adult seat belt fits. This is usually when the child reaches about 4' 9" in height and is between 8 to 12 years of age.

Other points to keep in mind when using seat belts include the following:

- Never tuck the shoulder belt under the child's arm or behind the back.
- If there's only a lap belt, make sure it's snug and low on the child's thighs, not across the stomach. Try to get a lap/shoulder belt installed in your car by a dealer.

Installing a car safety seat

There are 2 main things to remember when installing a car safety seat.

1. Your child must be buckled snugly into the seat.
2. The seat must be buckled as tightly as possible into your vehicle.

Ask yourself the following questions to make sure both are done correctly. If you are not sure, check the instructions that came with your car safety seat.

Is the child buckled into the car safety seat correctly?

- Are you using the correct harness slots?
- Are the harnesses snug?
- Is the plastic harness clip (if your seat comes with one) at armpit level to hold shoulder straps in place?
- Do the harness straps lie flat?

- Is your baby dressed in clothes that allow the straps to go between the legs? It's OK to adjust the straps to allow for thicker clothes, but make sure that the harness still holds the child snugly.
- Is anything under your baby? Tuck blankets around your baby after adjusting the harness straps snugly. Never place them under your baby.
- Is your child slouching down or to the side? If so, pad the sides of the seat and between the crotch with rolled up diapers or blankets.

Is the car safety seat buckled into the vehicle correctly?

- Is the car safety seat facing the right direction for your child's age and weight?
- Is the seat belt routed through the correct belt path?
- Is the seat belt buckled tight? If you can move the seat more than an inch side to side or toward the front of the car, it's not tight enough.
- Is your rear-facing seat reclined enough? Your infant's head should not flop forward. If it does, tilt the car safety seat back a little. Your car safety seat may have a built-in recline adjuster for this purpose. If not, wedge firm padding, such as a rolled towel, under the base.
- Do you need a locking clip? They come with all new car safety seats. If the seat belts in your car move freely even when buckled, you need a locking clip. If you're not sure, check the manual that came with your car.
- Some lap belts need a special heavy-duty locking clip. These are only available from the vehicle manufacturer. Check the manual that came with your car for more information.

How has installation been made safer and easier?

Child passenger safety experts have developed several ways to make car safety seat installation safer and easier, including the following:

- **LATCH** (Lower Anchors and Tethers for Children) is an attachment system that makes installing a car safety seat easier. If your vehicle comes with this anchor system, you do not need to use a safety seat belt to secure the car safety seat. All passenger vehicles and car safety seats made after September 2002 come with LATCH. However, unless both your vehicle and the car safety seat have this anchor system, you will still need to use a safety seat belt to secure the car safety seat.
- A **tether** is a strap that hooks to the top of a forward-facing car safety seat and attaches to an anchor in the vehicle. Tether anchors are usually located on the rear window ledge, the back of the vehicle seat, or on the floor or ceiling of the vehicle. Tethers give extra protection by keeping the car safety seat and the child's head from being thrown too far forward in a crash.

All new cars, minivans, and light trucks have been required to have tether anchors since September 2000. Most new forward-facing car safety seats come with tethers. For older car safety seats, tether kits are available. It is highly recommended that tethers be used because they greatly improve the protection of your child in a crash. Check with the car safety seat manufacturer to find out how you can get a tether for your seat.
- **Child Passenger Safety (CPS) Technicians** can help you. If you have more questions about installing your car safety seat, a certified CPS Technician may be able to help. A list of certified CPS Technicians is available by state or ZIP code on the National Highway Traffic Safety Administration (NHTSA) Web site at www.nhtsa.dot.gov/people/injury/childps/contacts/. A list of inspection stations is available at www.seatcheck.org. You can also get this information by calling the NHTSA Auto Safety Hot Line at 888/ DASH-2-DOT (888/327-4236), from 8:00 am to 10:00 pm ET, Monday through Friday.

Car safety seats and shopping carts

Many infant-only car safety seats lock into shopping carts, and many stores have shopping carts with built-in infant seats. This may seem safe, but your baby could tip over or fall out of the cart. Thousands of children are hurt every year from falling from shopping carts or from the carts tipping over. Instead of placing your baby's car safety seat on the cart, consider using a stroller, backpack, or frontpack while shopping with your baby.

Keep in mind that there are products on the market that claim to make seat belts fit better. These devices attach to the seat belt but are not a part of the original belt. These products may actually interfere with proper lap and shoulder belt fit by causing the lap belt to ride too high on the stomach and making the shoulder belt too loose. Until NHTSA develops safety standards for these products, the American Academy of Pediatrics (AAP) recommends they not be used.

Common questions about car safety seats

Q: What if my baby is premature?

A: Use a car safety seat without a shield harness. Shields often are too high and too far from the body to fit correctly. A small baby's face could hit a shield in a crash. While still in the hospital, your baby should be observed in her car safety seat to make sure the reclined position does not cause low heart rate, low oxygen, or breathing problems. If your baby needs to lie flat during travel, use a crash-tested car bed. If possible, an adult should ride in the back seat next to your baby to watch her closely.

Q: What if my baby weighs more than 20 pounds but is not 1 year old yet?

A: Many babies reach 20 pounds well before their first birthday. However, just because your baby weighs more than 20 pounds does not make him ready to ride forward-facing. Luckily, there are many convertible seats that can be used rear-facing for children weighing more than 20 pounds. See the product listing at the end of this brochure to see which seats have these higher weight limits.

Q: What if my child has special health care needs?

A: Children with special health problems may need other restraint systems. Talk about this with your pediatrician. Easter Seals, Inc, has car seat safety programs for children with special health care needs in the following states: Georgia, Kentucky, Missouri, New Mexico, Pennsylvania, Texas, West Virginia, and Wisconsin. More information is available from Easter Seals, Inc, at 800/221-6827. You also can learn more by calling the Automotive Safety Program at 317/274-2977 or by visiting their Web site at www.preventinjury.org. For more information and a list of car safety seats available for children with special needs, see the AAP brochure, *Safe Transportation of Children With Special Needs: A Guide for Families*.

Q: What if my car has air bags?

A: Most new cars have air bags. When used with seat belts, air bags work very well to protect older children and adults. However, air bags are very dangerous when used with rear-facing car safety seats or when passengers are not properly positioned. If your car has a passenger air bag, infants in rear-facing seats *must ride in the back seat*. Even in a low-speed crash, the air bag can inflate, strike the car safety seat, and cause serious brain injury and death.

Children who ride in forward-facing car safety seats or booster seats also are at risk from air bag injuries. **All children through 12 years of age are safest in the back seat.** If you must put an older child in the front seat, slide the vehicle seat back as far as it will go. Make sure your child is properly restrained for her age and size and stays in the proper position at all times. This will help prevent the air bag from striking your child.

Most families don't need to use the air bag on/off switch. Air bags that are turned off cannot protect other passengers riding in the front seat. Air bag on/off switches only should be used if *all* of the following are true:

- Your child has special health care needs.
- Your pediatrician recommends constant supervision of your child during travel.
- No other adult can ride in the back seat with your child.

On/off switches also must be used if you have a vehicle with no back seat or a back seat that is not made for passengers.

Q: What if my car has side air bags?

A: Side air bags improve safety for adults in side impact crashes. However, children who are seated near a side air bag can be at risk for serious injury. Read your vehicle owner's manual for recommendations that apply to your vehicle.

Q: What if my car only has lap belts in the back seat?

A: Lap belts work fine with infant-only, convertible, and forward-facing car safety seats. They cannot be used with belt-positioning booster seats, and they are not the safest way to buckle older children. If your car only has lap belts, use a forward-facing car safety seat with a harness and higher weight limits. Other options are

- Check with a car dealer or the manufacturer of your car to see if shoulder belts can be installed.
- Use a travel vest (some can be used with lap belts).
- Consider buying another car with lap/shoulder belts in the back seat.

Q: What if I drive more children than can be buckled safely in the back seat?

A: Avoid this situation, especially if your car has passenger air bags. However, in an emergency, place the child most likely to sit in the proper forward-facing position in the front seat, with the vehicle seat moved as far back as possible. A child in a forward-facing car safety seat with a harness may be the best choice because a child who is in a booster seat or using a regular seat belt can easily move out of position and be at greater risk for injuries from the air bag.

Don't leave your child unattended in a car safety seat

Children should never be left alone in a car whether they are in their car safety seats or not. Any of the following can happen when a child is left alone in a vehicle:

- Temperatures can reach deadly levels in minutes, and the child can die of heat stroke.
- He can be strangled by power windows, sunroofs, or accessories.
- He can be taken during a car theft or kidnapped from the vehicle.
- He can knock the vehicle into gear, setting it in motion.

Don't leave your baby unattended in a car safety seat outside of the vehicle either. When your baby falls asleep in his car safety seat, it can be tempting to bring him inside and leave him alone in the seat, but this can be unsafe. Your baby can fall out of the carrier, or the carrier can fall over. And remember that placing the car safety seat on a shopping cart is unsafe too. The best place for your baby to sleep is on his back in a safe crib.

Q: Can I use a car safety seat on an airplane?

A: The Federal Aviation Administration (FAA) and the AAP recommend that when flying, children be securely fastened in car safety seats until 4 years of age, then be secured with the airplane seat belts. This will help keep them safe during takeoff and landing or in case of turbulence. Most infant, convertible, and forward-facing seats are certified to be used on airplanes. Booster seats and travel vests are not. Check the label on your car safety seat and call the airline before you travel to be sure your seat meets current FAA regulations.

Q: Can I use a car safety seat that was in a crash?

A: If the car safety seat was in a moderate or severe crash, it needs to be replaced. If the crash was minor, the seat does not automatically need to be replaced. A crash is considered minor if *all* of the following are true:

- The vehicle could be driven away from the crash.
- The vehicle door closest to the car safety seat was not damaged.
- No one in the vehicle was injured.
- The air bags did not go off.
- You can't see any damage to the car safety seat.

If you are unsure, call the manufacturer of the seat. See the resource section at the end of this brochure for manufacturer names and phone numbers.

Q: What about using a used car safety seat?

A: Do not use a car safety seat that

- **Is too old.** Look on the label for the date it was made. Do not use seats that are more than 10 years old. Some manufacturers recommend that car safety seats only be used for 5 to 6 years. Check with the manufacturer to find out how long the company recommends using their seat.
- **Has any cracks in the frame of the seat.**
- **Does not have a label with the date of manufacture and model number.** Without these, you cannot check on recalls.

- **Does not come with instructions.** You need to know how to use the seat. You can get a copy of the instruction manual by contacting the manufacturer.
- **Is missing parts.** Used car safety seats often come without important parts. Check with the manufacturer to make sure you can get the right parts.
- **Is a shield booster.** Although shield boosters may meet current safety standards for use by children from 30 to 40 pounds, the AAP does not recommend their use. Major injuries have occurred to children in shield boosters. The only time shield boosters should be used is if the shield is removed and the seat is used with a lap/shoulder belt as a belt-positioning booster.
- **Was recalled.** You can find out by calling the manufacturer or contacting the following:
 - Auto Safety Hot Line 888/DASH-2-DOT (888/327-4236), from 8:00 am to 10:00 pm ET, Monday through Friday.
 - National Highway Traffic Safety Administration (NHTSA) www-odi.nhtsa.dot.gov/cars/problems/recalls/childseat.cfm

If the seat has been recalled, be sure to follow the instructions to fix it or to get the parts you need. You also may get a registration card for future recall notices from the hot line.

Always read and follow manufacturer's instructions

If you do not have the manufacturer's instructions for your car safety seat, write or call the company's customer service department. They will ask you for the model number, name of seat, and date of manufacture. The manufacturer's address and phone number are on the label on the seat.

All products listed on the following pages meet Federal Motor Vehicle Safety Standard 213 as of the date of publication. There may be car safety seats available that are not listed in this brochure. The following information is current as of the date of publication. Before buying a car safety seat, check the manufacturer's instructions for important safety information about proper fitting and use.

Although the American Academy of Pediatrics (AAP) is not a testing or standard-setting organization, this guide sets forth the AAP recommendations based on the peer-reviewed literature available at the time of its publication, and sets forth some of the factors that parents should consider before selecting and using a car safety seat.

The appearance of the name American Academy of Pediatrics (AAP) does not constitute a guarantee or endorsement of the products listed or the claims made. Phone numbers and Web site addresses are as current as possible, but may change at any time.

Prices are approximate and may vary.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

