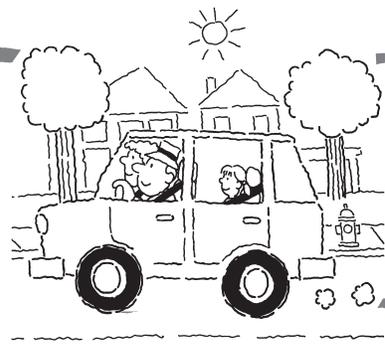


Car Safety Seats:

A Guide for Families

Part I 2007 Safety Information



Each year thousands of young children are killed or injured in car crashes. You can help keep this from happening to your child by using car safety seats and seat belts correctly on every single trip you take. Here are some helpful tips.

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List of car safety seats

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:

- Don't decide by price alone. A higher price does not mean the seat is safer or easier to use. All car safety seats available for sale in the United States must meet government safety standards.
- 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 properly and securely in your car.
- Keep in mind that pictures or displays of car safety seats 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 at least until she turns 1 year old. It is best for children to ride rear-facing to the highest weight or height allowed by the manufacturer.

There are 2 types of rear-facing seats: infant-only seats and convertible seats. Convertible seats can be used rear-facing for infants, and then turned forward-facing once your child is old enough and big enough to do so safely. (See handout "Car Safety Seats: A Guide for Families, Part II 2007 Product Information" for names of specific seats in these categories.)

Important safety rules

- Always use a car safety seat. Start 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 a passenger air bag.
- All children younger than 13 years are safest in the back seat.
- Be a good role model—always wear your seat belt. This will 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 handy, and follow them at all times.
- Read your car owner's manual for information about installing your car safety seat.
- If you need help installing your car safety seat, contact a certified Child Passenger Safety (CPS) Technician. To locate a child safety seat inspection station and set up an appointment, call toll-free at 866/SEATCHECK (866/732-8243) or visit www.seatcheck.org.

Infant-only seats

- Small and have carrying handles (sometimes come as part of a stroller system).
- Have a built-in harness.
- Are used for infants from birth up to 22 to 30 pounds, depending on model.
- Many come with a base that can be left in the car. The seat clicks into and out of the base, so you don't have to install the base each time you use it.

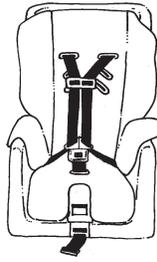


Infant-only car safety seat

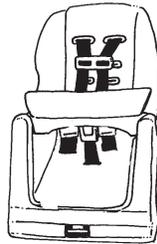
Convertible seats (used rear-facing)

- Are used rear-facing from birth until your child is at least 1 year of age *and* at least 20 pounds. It is best for children to ride rear-facing to the highest weight or height allowed by the manufacturer, usually 30 pounds or more for all new convertible seats. Check your car safety seat instructions to find the weight and height limits for rear-facing.
- Have higher rear-facing weight limits than infant-only seats and are good for bigger babies.
- Have the following 3 types of harnesses:
 - **5-point harness**—5 points of attachment: 2 at the shoulders, 2 at the hips, 1 at the crotch.
 - **Overhead shield**—A padded tray-like shield that swings down over the child.
 - **T-shield**—A padded t-shaped or triangle-shaped shield attached to the shoulder straps.

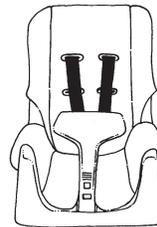
5-point harness



Overhead shield



T-shield



Features to look for in rear-facing seats

- **Harness slots.** Look for a seat with more than one set of harness slots to give your baby room to grow. The harness should be in the slots at or below your baby's shoulders when your baby is rear-facing.
- **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 helpful features.** Angle indicators and built-in angle adjusters can help you get the proper recline. Head support systems can help your baby fit in the seat properly.

Forward-facing seats

Once your child is at least 1 year of age *and* weighs 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 or height allowed by the car safety seat. There are many types of seats that can be used forward-facing: convertible seats, built-in seats, combination forward-facing/booster seats, and travel vests. (See handout "Car Safety Seats: A Guide for Families, Part II 2007 Product Information" for names of specific seats in these categories.)



Forward-facing seat

Convertible seats (used forward-facing)

Convertible seats can be used forward-facing by children who are at least 1 year of age and weigh at least 20 pounds. To switch the seat from rear- to forward-facing, be sure to follow these steps:

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.
- When making these changes, always follow the car safety seat instructions.

Built-in seats

Built-in forward-facing seats are available in some cars and vans. Weight and height limits vary. Read your vehicle owner's manual or contact the manufacturer for details about how to use these seats.

Combination forward-facing/booster seats

Some car safety seats can be used as both a forward-facing seat and a booster. These seats come with harness straps for children who weigh up to 40 to 65 pounds (depending on the model). Once your child reaches the weight or height limit for the harness, you can use the seat as a booster by removing the harness and using your vehicle's lap and shoulder seat belts. Keep in mind that when using the harness straps, the seat can be secured with a lap and shoulder belt or a lap-only belt. However, once you remove the harness, you *must* use a lap and shoulder seat belt. Children must *never* ride in a booster seat using a lap belt only because serious injury can result.

Travel vests

Travel vests can be used for a child who has outgrown his seat with a harness but is not yet ready for a booster seat or cannot use a booster seat because the vehicle only has lap seat belts in the rear. (See handout "Car Safety Seats: A Guide for Families, Part II 2007 Product Information" for names of travel vests.)

Booster seats

Booster seats are designed to raise your child so that the lap and shoulder seat belts fit properly. This means the lap belt lies low across your child's upper thighs and the shoulder belt crosses the middle of your child's chest



Belt-positioning booster seat

and shoulder. Correct belt fit helps protect the stomach, spine, and head from injury in a crash. Both high-back and backless booster seats are available. They do not come with harness straps but are used with the lap and shoulder seat belts in your vehicle, the same way an adult rides. Booster seats should be used until your child can correctly fit in lap and shoulder seat belts (*see “Seat belts” below*).

Your child should stay in a car safety seat with a harness as long as possible before switching to a 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 with a harness. (These limits are listed on the seat and are also included in the instruction booklet.)
- Her shoulders are above the harness slots.
- Her ears have reached the top of the seat.

Seat belts

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 belts fit him correctly. This is usually when the child reaches about 4' 9" in height and is between 8 and 12 years of age.

Your child is ready to use a lap and shoulder seat belt when the belts fit 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 upper thighs, not the stomach.
- He is tall enough to sit against the vehicle seat back with his legs bent without slouching and can stay in this position comfortably throughout the trip.

Other points to keep in mind when using seat belts

- Make sure your child does not tuck the shoulder belt under her arm or behind her back.
- If there's only a lap belt, make sure it's snug and low on her thighs, not across the stomach. Try to get a lap and shoulder belt installed in your car by a dealer.
- Never allow anyone to “share” seat belts. All passengers must have their own car safety seats or seat belts.
- The safest place for all children younger than 13 years to ride is in the back seat.

A warning about seat belt adjusters

There are products for sale that attach to the seat belt and claim to make it fit better. 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, and may even damage the seat belt itself. There is no federal standard for the performance of these products, and most vehicle and car safety seat manufacturers do not recommend their use. Until there are federal safety standards for these products, the American Academy of Pediatrics (AAP) recommends they not be used. As long as children are riding in the correct restraint for their size and age, they do not need to use any additional devices.

Installing a car safety seat

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

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

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, or contact a certified CPS Technician for help.

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 size?
- Is the seat belt routed through the correct belt path?
- If you are using the LATCH system (*see “Installation made safer and easier” for more information*) to attach the seat, have you attached the straps to the correct anchor points in the vehicle?
- Are the LATCH straps or seat belt buckled tightly? If you can move the seat more than an inch side to side or front to back, 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, and some are even built into the seat. If the seat belts in your car move freely even when buckled and there is no way to lock them, you need a locking clip. If you're not sure, check the manual that came with your car. Locking clips are not needed in most newer vehicles and in vehicles with LATCH (*see “Installation made safer and easier” for more information*)
- Some lap belts (especially those found in older vehicles) 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 or visit a car safety seat inspection station.

Is the child buckled into the car safety seat correctly?

- Are you using the correct harness slots?
- Are the harnesses snug?
- Have you placed the plastic harness clip (if your seat comes with one) at armpit level to hold the 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 the harness still holds the child snugly. Also, remember to tighten the straps again after the thicker clothes are no longer needed.
- Is anything under your baby? Tuck blankets around your baby *after* adjusting the harness straps snugly. Never place them under or behind your baby.
- Is your child slouching down or to the side? If so, pad the sides of the seat and between the crotch and the crotch strap with rolled up diapers or blankets.

Installation made safer and easier

There are 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 eliminates the need to use seat belts to secure the car safety seat. Vehicles have at least 2 sets of small bars, called anchors, located in the back seat where the cushions meet. Car safety seats that come with LATCH have a set of attachments that fasten to these anchors. Nearly all passenger vehicles and all car safety seats made on or after September 1, 2002, come with LATCH. However, unless both your vehicle and the car safety seat have this anchor system, you will still need to use seat belts to install the car safety seat.
- A **tether** is a strap that attaches to the top of a car safety seat and to an anchor located on the rear window ledge, on 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 moving too far forward in a crash or sudden stop. Tethers are part of the LATCH attachment system, though they should not be confused with lower LATCH attachments; the tether is a longer strap at the top of the seat and the lower LATCH attachments are located at or near the base of the seat.

All new cars, minivans, and light trucks have been required to have tether anchors since September 2000. Most new forward-facing car safety seats and a few rear-facing car safety seats come with tethers. For older car safety seats, tether kits are available. Tethers are recommended 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 if yours does not have one.
- **Child Passenger Safety (CPS) Technicians can help you.** If you have more questions about installing your car safety seat, find a certified CPS Technician. 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—where you can go to learn how to correctly install a car safety seat—is available in both English and Spanish at www.seatcheck.org or toll-free at 866/SEATCHECK. You can also get this information by calling the toll-free NHTSA Auto Safety Hotline 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. These may seem safe, but thousands of children are hurt every year from falling out of shopping carts or from the carts tipping over. Instead of placing your baby's car safety seat on the cart, consider using a stroller or frontpack while shopping with your baby.

Common questions about car safety seats

Q: What if my baby is born prematurely?

A: Premature infants should be observed by a health care professional in their car safety seats while still in the hospital 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. Otherwise, use a rear-facing car safety seat without a tray shield. Shields often are too big and too far from the body to fit correctly. A small baby's face could hit the tray in a crash. If possible, an adult should ride in the back seat next to your baby to watch him 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 her ready to ride facing forward. Use a convertible or infant-only seat that can be used rear-facing by children who weigh more than 20 pounds and keep your baby rear-facing at least until she has reached her first birthday.

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

A: Children with special health needs may have to use special restraint systems. Talk about this with your pediatrician. Information about transporting your child with special needs is available from the National Center for the Safe Transportation of Children with Special Health Care Needs at 800/620-0143 or by visiting its Web site at www.preventinjury.org. For more information and a list of car safety seats available for children with special needs, visit www.aap.org/healthtopics/carseatsafety.cfm.

Q: What if my car has air bags?

A: All new cars come with air bags. When used with seat belts, air bags work very well to protect teenagers and adults. However, air bags are very dangerous to children, particularly those riding in rear-facing car safety seats and to child passengers who 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 relatively low-speed crash, the air bag can inflate, strike the car safety seat, and cause serious brain and neck injury and death.

Toddlers who ride in forward-facing car safety seats also are at risk from air bag injuries. **All children up to age 13 years are safest in the back seat.** If you must put a child in the front seat, slide the vehicle seat back as far as it will go. Make sure your child is properly restrained for his age and size and stays in the proper position at all times. This will help prevent the air bag from striking your child.

Air bag on/off switches can be used in the few cases in which an infant must ride in the front seat. 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 should only 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 may 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 when installing infant-only, convertible, and forward-facing car safety seats. They cannot be used with 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 (see *handout "Car Safety Seats: A Guide for Families, Part II 2007 Product Information"* for a listing of the seats with these higher weight limits). Other options are

- Check with a car dealer or the manufacturer 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 and shoulder belts in the back seat.

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

A: Avoid having to drive more children than can be buckled safely in the back seat, especially if your car has passenger air bags. However, if necessary, a child in a forward-facing car safety seat with a harness may be the best choice to ride in front. This is 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.

Q: What do I need to know if my child will be driven by someone else, such as for child care or school?

A: If your child is being driven by someone else, make sure

- The car safety seat your child will be using (whether supplied by you or by the school) is appropriate for your child and the vehicle used for transport.
- The person responsible for transporting your child knows how to install the car safety seat correctly.

Child care programs and schools should have written guidelines for transporting children. These guidelines should include the following:

- All drivers must have a valid driver's license. In some states, school bus drivers need to have a special type of license.
- Child-to-staff ratios for transport should meet or exceed those required for the classroom.
- Every child should be supervised during transport, either by school staff or a parent volunteer. This allows the driver to focus entirely on driving.
- School staff, teachers, and drivers should be knowledgeable about what to do in an emergency, proper use of car safety seats and seat belts, and other safety requirements.

For more information on written transportation guidelines for schools and child care programs, visit www.healthykids.us/chapters/transportation_main.htm and www.healthychildcare.org.

Don't leave your child alone in or around cars

Children should *never* be left alone in or around 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 or around a vehicle:

- The temperature in a vehicle can reach a deadly level in minutes, and the child can die of heat stroke.
- She can be strangled by power windows, sunroofs, or accessories.
- She can knock the vehicle into gear, setting it in motion.
- She can be backed over when the vehicle backs up.

Don't leave your baby unattended in a car safety seat outside of the vehicle either. When your baby falls asleep in her car safety seat, it can be tempting to bring her inside and leave her alone in the seat, but this can be unsafe. Your baby can fall out of the seat, or the seat can fall over. The best place for your baby to sleep is on her 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 should be securely fastened in car safety seats until 4 years of age, and then should 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 car safety seat manufacturer before you travel to be sure your seat is certified for use on an airplane. You can also consider using a restraint made only for use on airplanes and approved by the FAA.

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. The NHTSA considers a crash 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 handout for manufacturer names and phone numbers.

Q: What about using a used car safety seat?

A: Avoid used car safety seats, especially if bought from a yard sale or a thrift shop because you won't know the seat's history.

Never use a car seat that

- **Is too old.** Look on the label for the date it was made. Many manufacturers recommend that car safety seats only be used for a certain number of years. Check with the manufacturer to find out how long the company recommends using their seat.
- **Has any visible 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 to see if the seat has been recalled.

- **Does not come with instructions.** You need them to know how to use the seat. You can get a copy of the instruction manual by contacting the manufacturer or looking on the Internet.
- **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 are still around, the AAP recommends against 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 and shoulder belt as described previously (*see handout "Car Safety Seats: A Guide for Families, Part II 2007 Product Information" for a listing of the seats with these higher weight limits*).
- **Was recalled.** You can find out by calling the manufacturer or by contacting the following:
 - **Auto Safety Hotline:** Toll-free: 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 hotline.

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. A representative 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 in *Car Safety Seats: A Guide for Families, Part II 2007 Product Information* 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 handout. The 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.

Illustrations on pages 1 and 2 by Wendy Wray.

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.

