



Safely Home

A guide to kids in cars



Lucile Packard
Children's Hospital
Stanford

Childhood Injury Prevention



Buckling up
with a bun in
the oven

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Children
& air bags

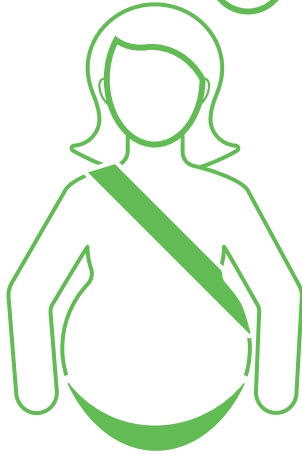
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Buckling up with a bun in the oven

You should always wear your seat belt, even when pregnant. It's the single most effective thing you can do to protect you and your unborn child while in a car.

How do I wear my seat belt while pregnant?

Correct



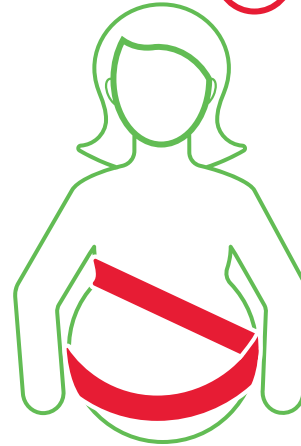
Shoulder

The shoulder strap should go over your shoulder and across your chest between your breasts. Make sure the seat belt is snug and not loose.

Lap

The lap belt should go across your lap and **under** your belly.

Incorrect



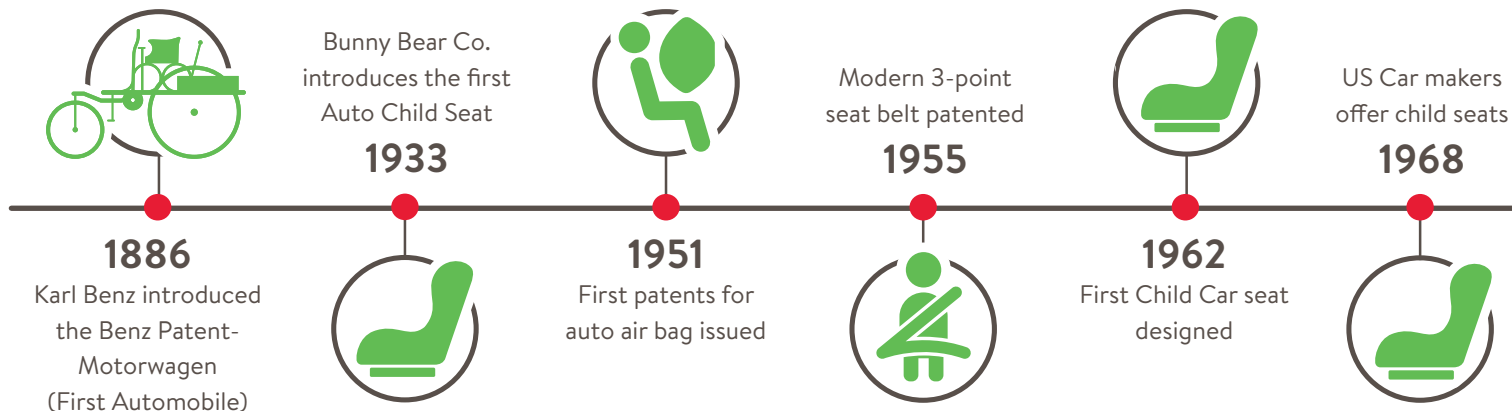
Shoulder

Never place belt behind your back or **under** your arm.

Lap

Never place seat belt across your belly.

Car safety features timeline



Adjusting your seat

Make sure your seat is in an upright position. Make sure you can comfortably reach the steering wheel and pedals, while keeping as much distance as possible between your belly and the steering wheel. Avoid letting your belly touch the steering wheel. If you need more room, try adjusting the steering wheel or having someone else drive. If you're a passenger move your seat as far back as possible.

Air bags

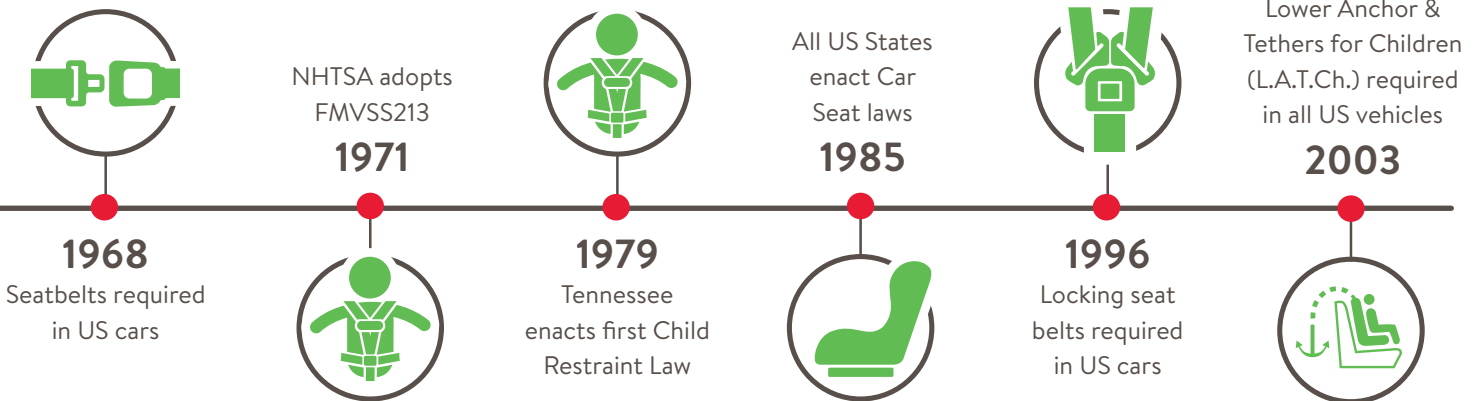
You always need to wear your seat belt properly. Air bags are designed to work with seat belts, not replace them. Without a seat belt, you could crash into the vehicle interior, other passengers, or be ejected from the vehicle.

My car has an on-off switch for air bags. Should I turn it off?

No. Doctors recommend that pregnant women wear seat belts and leave air bags turned on. Seat belts **and** air bags work together to provide the best protection for you and your unborn child.

What should I do if I am involved in a crash?

Call 911 immediately, even if you think you are not injured, regardless of whether you were the driver or a passenger.





Choosing the right car seat

Car seats are required by law because they provide the best protection for infants and young children. Choosing the right car seat for your child is important. Because there are so many seats to choose from, here's a guide to help.

Types of car seats



Rear-facing seat

A rear-facing seat faces the rear of the car. In a crash, a rear-facing seat cradles and moves with the child to reduce the stress to the neck and spinal cord.



Infant-only

Infant-only seats are seats that can only be used as a rear-facing seat for newborns and infants. They come with detachable bases that are installed in vehicles, making it easier to take a child in and out.



Convertible seat

A convertible seat is one that can be used as a rear-facing seat for infants and small toddlers or as a forward-facing seat for larger children.



Forward-facing seat

A forward-facing car seat is one that faces the front of the vehicle.



Combination seat

Combination seats have a 5-point internal harness system to secure a child up to 40 pounds or higher, and can also be used as a **belt-positioning booster seat**.



Belt-positioning booster seat

There are two types of booster seats: high-back and without a back. The high-back booster seat has built-in head and neck supports. The backless booster relies on head and neck protection built into the vehicle's seat. Booster seats **cannot** be used with Lap-only seat belts.

What seat is right for my child?

Here are some tips for choosing the right car seat based on your child's age and size.



0-24
months

Children under the age of 2 should always ride in a **rear-facing car seat**. **Infant-only seats** can only be used as rear-facing seats. **Convertible car seats** typically have higher height and weight limits for the rear-facing position, allowing you to use them for a longer period of time.



2-3
years old

A **convertible seat** is one that can be used as a **rear-facing seat** for infants and small toddlers or as a forward-facing seat for larger children. It is recommended to keep children in a rear-facing car seat as long as possible, up to the rear facing height and weight limits of the seat.



4-7
years old

Keep your child in a **forward-facing car seat** with a harness until he or she reaches the top height or weight limit allowed by the manufacturer. Once your child outgrows the **forward-facing car seat** with a harness, it's time to travel in a booster, but still in the back seat.



8-12
years old

Keep your child in a **booster seat** until he or she is big enough to fit in a seat belt properly. The lap belt must lie snugly across the upper thighs, not over the stomach. The shoulder belt should lie snug across the shoulder and chest and not across the neck or face and never behind the back.

Remember, all car seats should be used in the backseat. Kids should never ride up front. Always refer to the car seat instructions for weight limits, proper use and installation.

Choosing the right child car seat

Register your child's seat

All new car seats come with a registration card. Register your child's car seat with the manufacturer right away, so that you can be notified of any recall. To register, mail in the card or register on the manufacturer's website.

Go to <https://www.nhtsa.gov/recalls> to check your car seat for recalls.

Second-hand seats

If you are buying a second-hand seat, make sure to check that it's up to date and safe.

Manufacturers are required to include the model number and manufacture date on each seat. This information can be found on a label usually located on the bottom or side of the seat. Use this information to find out if your seat is expired or recalled. Reference it when checking in the manual for expiration or for recalls on the manufacturers website.



Installing the car seat

Here are tips on how to correctly install your car seat in the car, based on the type of car seat you have. If you have any concerns about how you've put the seat in, get a professional to help you. A Certified Child Passenger Safety Technician can check the installation of your child car seat and answer questions. Contact the National Highway Traffic Safety Administration (NHTSA) for more information, or locate an inspection station here: nhtsa.gov/cps/cpsfitting.

Rear-facing seats

Use your hand to press the car seat firmly into the vehicle seat. If you are having a hard time getting a tight fit, push down on the car seat with your weight and tighten the seat belt as much as possible. If you are using the seat belt, make sure to lock it. It's important to make sure that the car seat doesn't move more than one inch from side to side and front to back.

Bringing your baby home for the first time

When you bring your baby home from the hospital for the first time, you must use a rear-facing car seat that goes in the back seat of your vehicle. Some car seat manufacturers allow the use of rolled receiving blankets or cloth diapers as buffers for smaller newborns. **Only use this method if your car seat manufacturer approves it.** There should be nothing between the baby's back and its seat.

Correct



The blankets can be rolled up from the baby's hips to its head to provide support.

Incorrect



DO NOT put blankets around the head or underneath the baby's head or neck.





Car seat position in vehicle

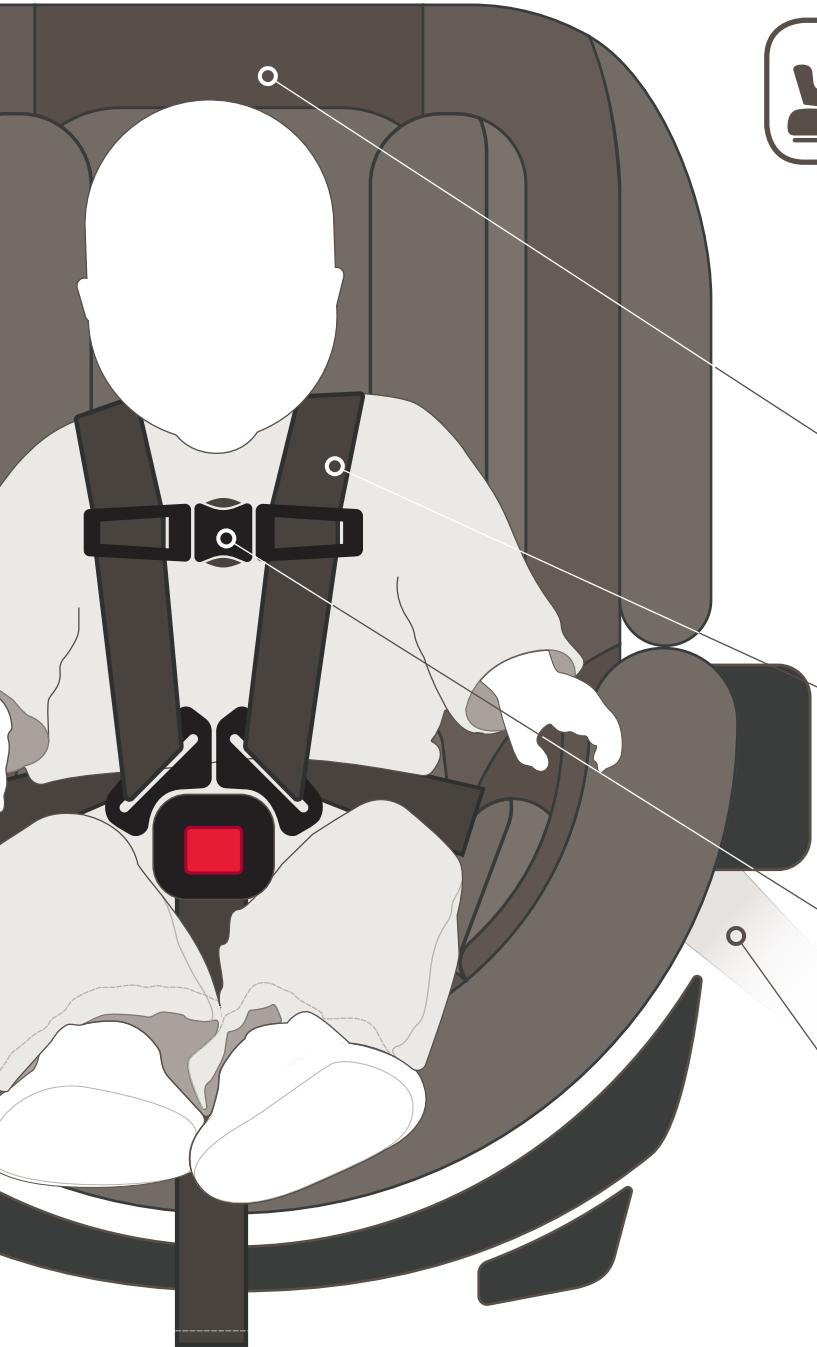
Steps for securing your child in a rear-facing seat

The top of your child's head should be no closer than one inch to the top of the plastic shell (rear-facing infant seat/convertible seat only). Coverings may exceed the top of the plastic shell.

Always keep harness straps snug, straight and flat. The straps should be positioned at or below the shoulders.

The harness chest clip keeps the shoulder straps in the correct position. The clip should be at the middle of the chest, level with the armpits.

Make sure the vehicle seat belt is in the correct path securing the infant seat. Follow manufacturer's instructions.



Forward-facing seats

Forward-facing seats are ones where the opening faces the front of the car. They are used for children who have outgrown the weight and height limits of rear-facing car seats. As with all car seats, it's important that forward-facing seats are correctly installed in your vehicle and the harness securing your child to that seats is properly aligned to his or her body. Always use the top tether with any forward-facing car seat if your vehicle has top tether anchors.

As babies grow into toddlers, they are often able to manipulate harness straps and clips themselves, so it is more important than ever to make sure that:

- The harness straps are snug, straight and flat;
- The harness chest clip is at the middle of the chest and level with the armpits;
- The mid-point of the back of the child's head is not above the top of the plastic shell.

Tip

With combination seats, if shoulders are above the highest harness slots, internal harness should be removed and the restraint should be used as a belt-positioning booster with the vehicle lap/shoulder belt.





Car seat position in vehicle

Steps for securing your child in a forward-facing seat

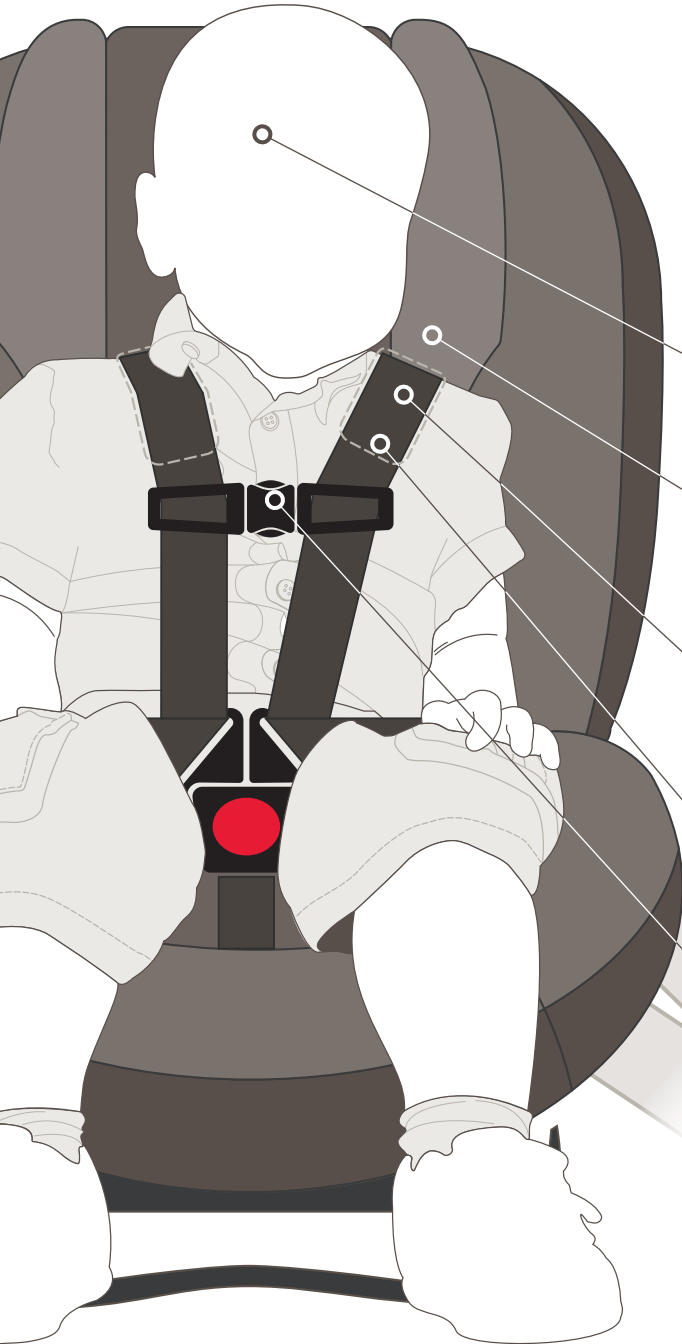
The midpoint of the back of the head should not be above the top of the seat's plastic shell.

Harness straps should be threaded through reinforced slots at or above your child's shoulders, never below.

Some seats have shoulder pads attached to the straps. If used, the pads must be properly positioned on the child's shoulders. Read the manufacturer's instructions for proper use.

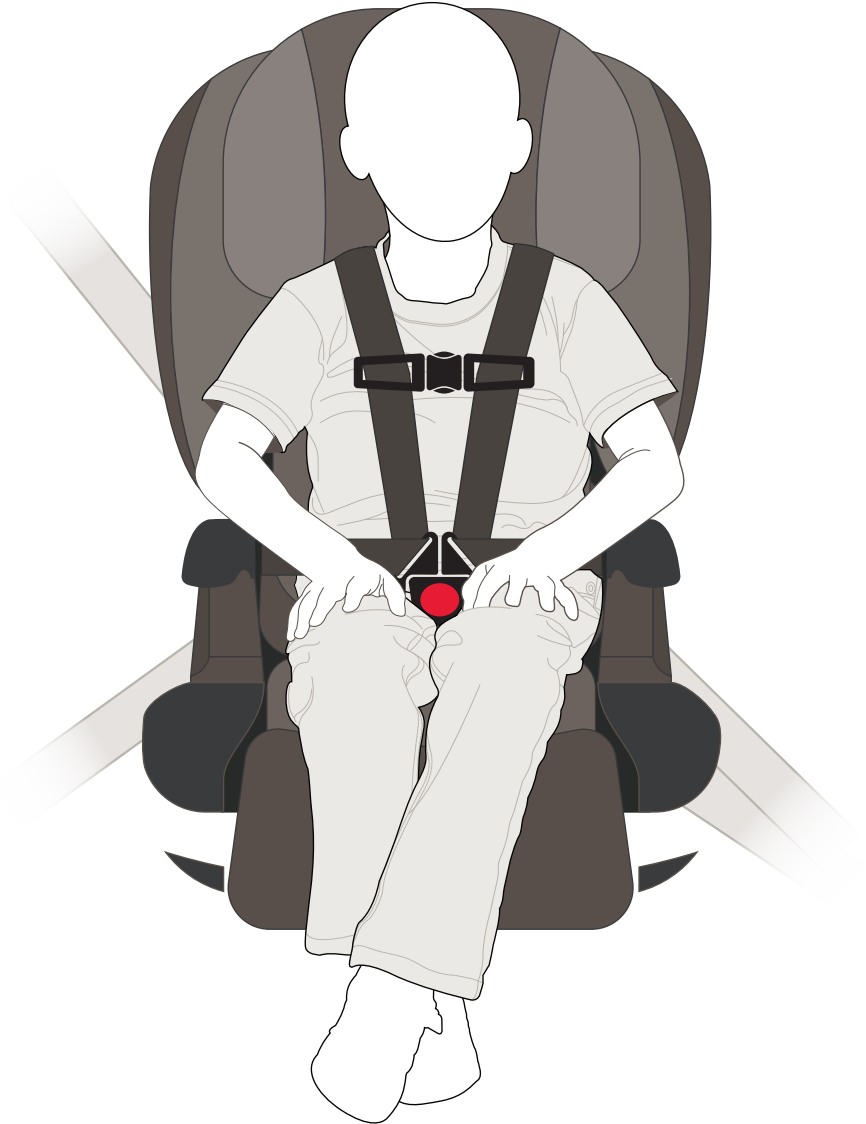
Harness straps should be snug, straight and lay flat.

Harness clip should be fastened at the middle of child's chest and level with armpits.

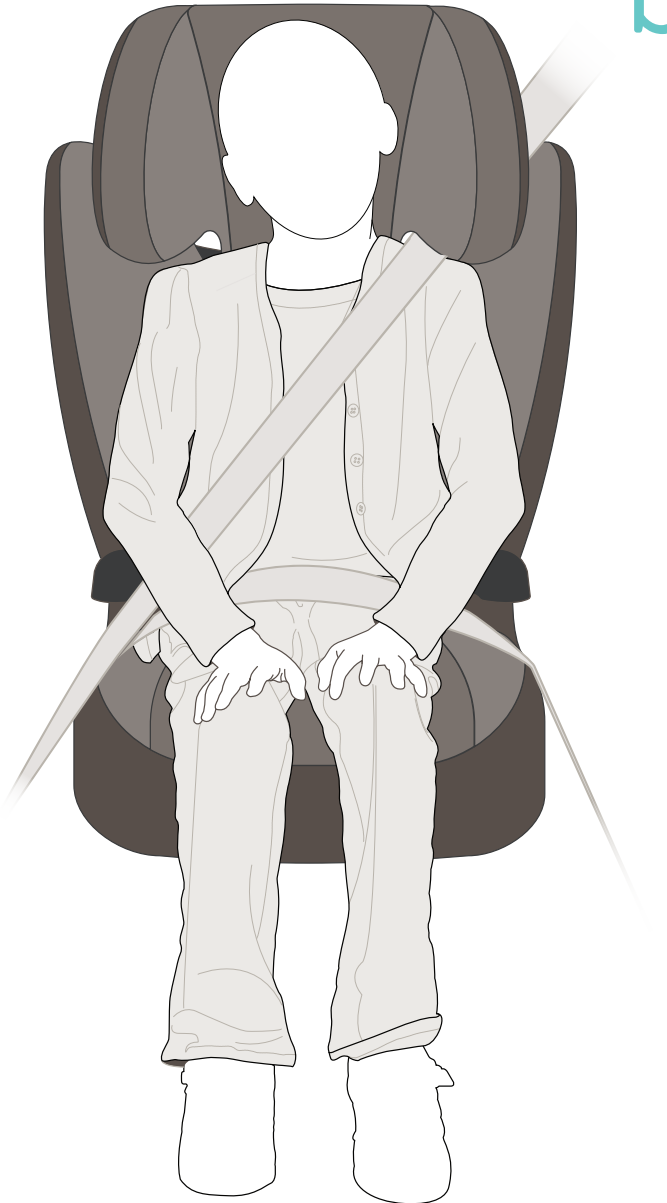


Combination seats

Combination seats have a 5-point internal harness system to secure a child up to 40 pounds or higher. The 5-point harness seat must be secured to the vehicle. With the removal of the internal harness, it then can be used as a high-back belt positioning booster (BPB) seat. Combination seats **CANNOT** be used in a rear-facing position.



Belt-positioning booster seats



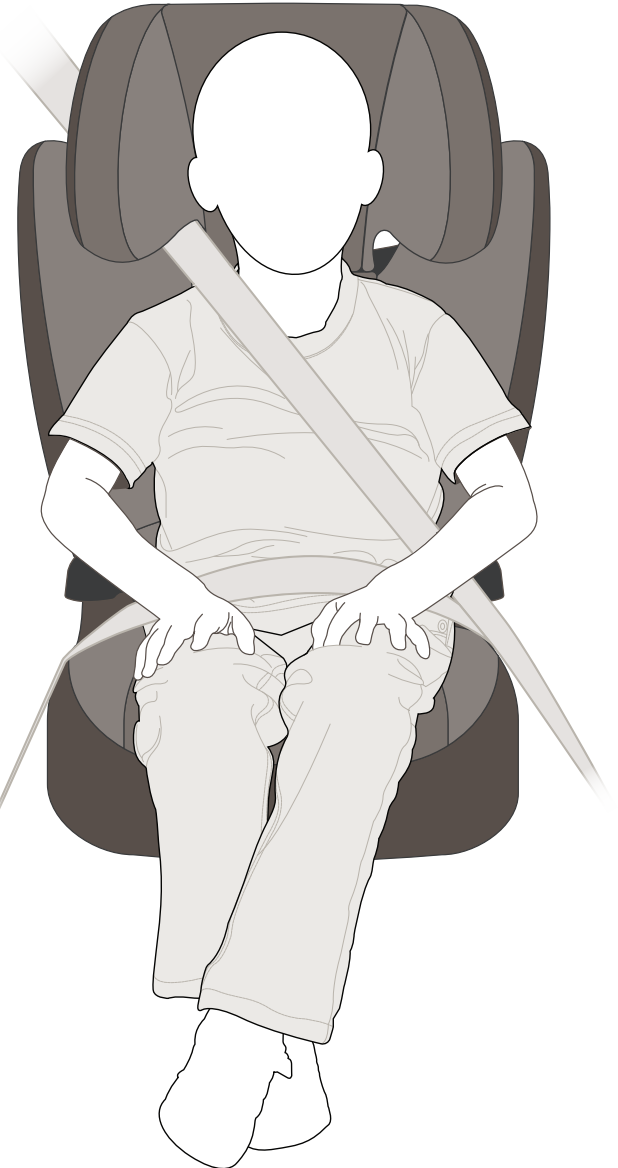
Children whose weight or height is above the forward-facing limit for their car seat should use a belt-positioning booster seat until the vehicle lap and shoulder seat belt fits properly, typically when they have reached 4 feet 9 inches tall and are between 8 and 12 years old.

Give me a boost!

Booster seats raise your child so that the vehicle's seat belt is properly aligned to the child's body and fits across the collarbone and thighs just as they would on an adult.

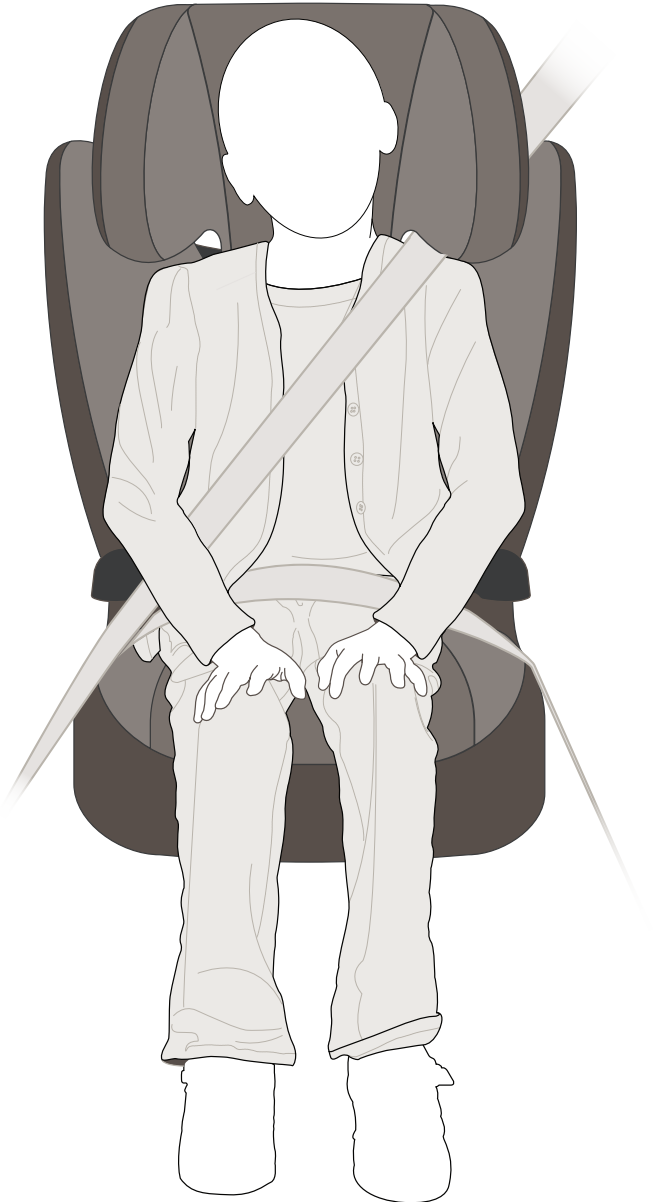
Things to keep in mind when using a booster seat:

- The vehicle lap belt should fit snugly across the child's upper thighs while the shoulder belt is snug across the chest.
- Never use pillows, towels or books to replace booster seat.
- Always use vehicle's combined lap/shoulder seat belts with boosters. Using one without the other can compromise your child's safety.



Seat belt systems

Once your child outgrows a booster seat (usually 4 ft. 9 in. or taller) you still want to make sure that the vehicle's seat belt is being worn the way it was designed and tested to be used. Just like adults, big kids need to buckle up!



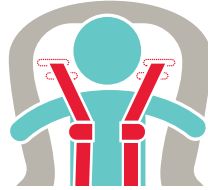
- Children should sit straight against the back of the vehicle seat with knees bent comfortably at the edge of the seat.
- Shoulder belt should be snug across the chest and the vehicle lap belt fits snug and low over the upper thighs, never across the stomach. The incorrect placement of the lap shoulder belt can cause serious injuries in a crash. Never put a shoulder belt behind the back or under the arm.
- Never put a small child in a seat belt. If your child's legs stick out straight when on the vehicle seat, they are not yet ready to leave the booster seat.

Basic safety tips



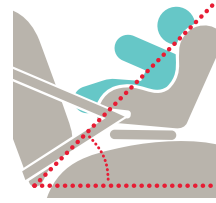
Avoid seats that are too big for your child.

- Always use a seat that is appropriate to your child's weight and height.



Never let children ride unrestrained.

- Most states require children under four years old to be properly restrained in an approved car seat.



Position infant seat at the correct angle

Read the manufacturer's instructions to determine correct angle (normally between 30 to 45 degrees) for your child's rear facing car seat.

- An upright angle could force the child's head to tilt forward and obstruct breathing.
- If you install an infant seat without the base, make sure you get the correct angle.
- Not all Infant seats can be installed without the base.
- Rolled towels or foam noodles may be used at the crack of the vehicle seat to correctly angle rear-facing car seats.

Read the manufacturer's instructions to make sure rolled towels or foam noodles are approved to adjust angle.



Take the wraps off

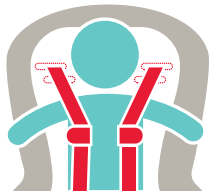
- Remove bulky clothing or blankets before placing the child in the restraint system.
- Never place blankets underneath or behind the child, or inside the harness system.



Use rear facing seats correctly

- Children should always ride in the back seat because it's safer there.
- Never put a rear-facing only car seat in a forward-facing position.
- Keep your child in a rear-facing car seat until he or she reaches the top height or weight limit allowed by the car seat's manufacturer.

Avoid these dangerous mistakes



Partial restraint

Always use the restraint system as intended. An improperly used harness or seat belt can result in serious injury or death to the child using it.



A lack of restraint

Never let a child ride in a car without the proper restraint for their age, height and weight.



Front seat riding

Although a child may want to sit up front, this puts them too close to the dashboard & air bag which, if deploys, can seriously injure or kill a child.



“Child crusher” position

Never hold a child on your lap in a moving car, even if you are buckled in — especially in the front seat. In the case of a crash, the child will be placed in additional risk from the vehicle’s air bags or dashboard. Children should always be properly restrained in the back seat.



Hard toys

Never allow children to play with hard toys or objects in the car, and don’t hang toys from infant seat handles. They can become dangerous during braking or crash situations. Instead provide **age appropriate** soft toys like stuffed animals for your child to play with.



Riding with a backpack

Children should never wear backpacks in the car because they can interfere with the effectiveness of restraint systems.



Children & air bags

Air bags help to provide safety in the event of a crash, but they inflate incredibly quickly and with a lot of force, and can cause serious injury or death to children, especially infants in rear-facing car seats.

Look for the labels

Most new vehicles are equipped with air bags, and even inflatable seat belts, to help protect both front and rear seat passengers. By law, all car manufacturers are required to display warning labels regarding air bags. If you have an older model car, it may not have air bags. If you're not sure about your vehicle's air bags, look for the warning labels provided by the manufacturer, which can be found in a variety of locations, including on the seat belts, the side of the seats, or on the car's sun visor.

Kids ride in the back

Children under 13 should always be seated in the back of the vehicle and properly restrained by a car seat or a vehicle's lap and shoulder seat belt.



Car seat warning label

WARNING



DEATH OR SERIOUS INJURY CAN OCCUR

- CHILDREN 12 AND UNDER CAN BE KILLED BY THE AIR BAG
- THE BACK SEAT IS THE SAFEST PLACE FOR CHILDREN
- NEVER PUT A REAR-FACING CHILD SEAT IN THE FRONT
- SIT AS FAR BACK AS POSSIBLE FROM THE AIR BAG
- ALWAYS USE SEAT BELTS AND CHILD RESTRAINTS

Lower anchors & tethers for children (LATCH)

Lower Anchors and Tethers for Children (LATCH) is a system that uses connectors from the car seat to connect to special metal anchors built into the vehicle. Read the manufacturer's instructions to see if your car is equipped with the LATCH system, to locate the latch anchors, and look up the recommended weight restrictions. If you use the LATCH system, make sure both your car and child car seat are designed to use LATCH. If either your car or seat is not designed for LATCH, use the car's seat belt instead.

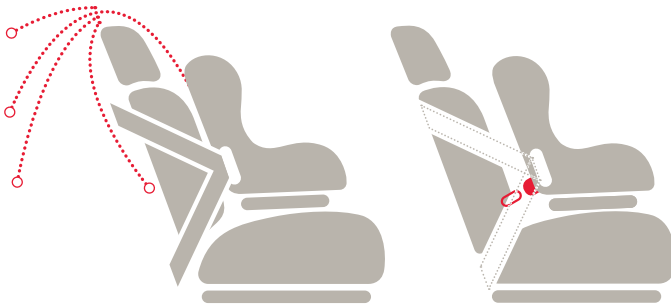
Tether straps

For forward-facing seats, you must use both the lower attachments and the top tether strap. Most rear-facing seats do not allow for the use of the top tether.

NOTE: You can use either the car's seat belt or the LATCH system to install your child's car seat as long as it's installed correctly and fits securely in the vehicle. The LATCH system and the vehicle's seat belt system should never be used together. Choose one or the other.

LATCH has a combined child and car seat weight limit of 65lbs. Make sure your child and car seat combined weight do not exceed 65lbs.

LATCH locations



Tether anchor locations

Lower anchor location

LATCH symbols



Tether anchor symbol

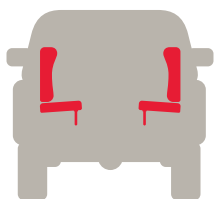


Lower anchor symbol

Special needs

Premature infants and children with respiratory difficulties, orthopedic challenges, neurological and behavioral problems may require special child restraints. Make sure that your vehicle can accommodate your child's needs. For more information, visit the American Academy of Pediatrics (AAP) at aap.org

Car compatibility issues



Pickup truck jump seats

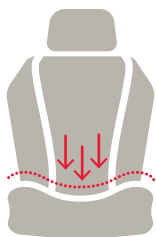
Child car seats cannot be used safely in side-facing pickup truck jump seats.

Never try to position a car seat in a jump seat.



Older Vehicles

Older vehicles with seat belt buckles on extended webbing, travel into the car seat and can make it difficult to install a car seat in the correct position.



Contoured seats

Cars with deep bucket seats or with a hump in the center can make it difficult or impossible to install a car seat in the correct position. To be sure a car seat will fit properly in your vehicle, try installing it before you purchase it.



Locking clips

Newer seat belt systems have a built-in locking mechanism, but some older vehicles require additional hardware, such as a locking clip, to secure the car seat.

Refer to your vehicle manufacturer's instructions to determine whether to use a locking clip to secure the car seat.

Stanford Children's Health would like to recognize Kohl's for the support they have given us over the years through Kohl's Cares. Since 2005, Kohl's Cares has supported Lucile Packard Children's Hospital Stanford's Childhood Injury Prevention Programs' efforts to educate the community about how to keep children safe. The development of this Child Passenger Safety booklet, other educational materials and community education events has been made possible by their support and for that we say: Thank you Kohl's Cares!






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