



Child Safety Seat Guide



Rear-facing



**Forward-facing with
Harnesses**



**Belt-Positioning
Booster Seats**



Seat Belts

Advice for Stage & Seat Transitions

1. Start your child in a rear-facing car seat in the back seat. Rear-face until at least age 2 and until they reach the upper weight and height limits of the seat (even past age 2). If your child outgrows their car seat before age 2, change to a seat with higher rear-facing weight and height limits. Keep rear-facing as long as possible. Leg crowding is expected and does not harm the child.
2. When your child outgrows the rear-facing seat, use a forward-facing car seat with a harness and tether in the back seat until at least age 5. Remember to keep rear-facing until at least age 2 before turning forward. Use a car seat with a harness and tether until age 5, or until they reach the upper height and weight limits for the harness.
3. When your child is at least age 5 and outgrows the forward-facing car seat with harness, use a booster seat in the back seat. Use a booster seat until the belt fits correctly. A booster seat is often needed until 4ft 9 in (57" or 145 cm) tall. Your child may be 12 years old before ready for an adult safety belt.
4. Children should ride in an adult seat belt in the back seat once they outgrow a booster seat. Kids are ready for a seat belt when: (1) The shoulder strap crosses the center of the chest and rests on the shoulder (not the neck). (2) The lap belt fits low on the hips touching the upper thighs (not the stomach). (3) Knees can bend when sitting all the way back in the seat, and feet are flat on the floor. Use the back seat for kids under 13.

Brought to you by the Division of Community Health and Research in the Department of Pediatrics at Eastern Virginia Medical School (August 2018)

For more information visit: www.carsafetynow.org



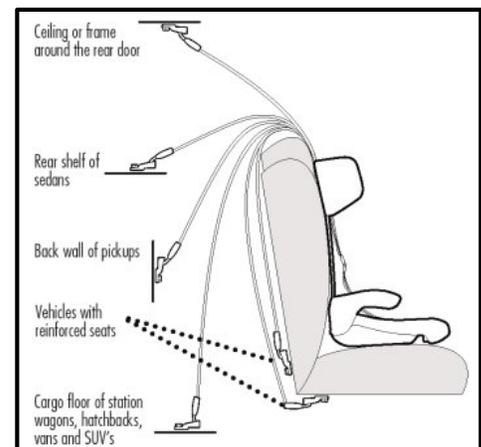
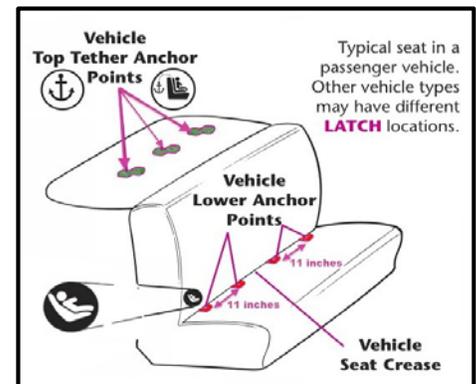
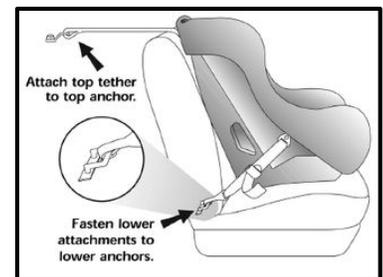
Step 1: Rear-Facing Seats until at least Age 2

- Infants and toddlers should ride in infant or convertible seats.
- Infants and toddlers should remain in rear-facing seats in the back seat until a minimum of *age 2*, and as long as possible to the maximum height and weight limits for the seat.
- Read seat labels to determine the correct seat for age, weight and height. Maximum rear-facing weight range varies from 22-50+ pounds. Check instructions and labels carefully, as weight and height specifications vary. (Missing labels? Contact manufacturer)
- Seat should be semi-reclined at approximately 45 degrees when rear-facing; use angle indicator on safety seat.
- READ the seat instruction manual AND the safety belt/seat section in your vehicle manual for proper installation guidance. (Missing manuals? Contact the manufacturers)
- Children should always ride in the back seat. In some states (including Virginia), it is illegal to place a rear-facing seat in the front seat of a vehicle.
- NEVER put a rear-facing child in front of an active airbag. (It's important to know where the airbags are positioned.)
- Install infant and convertible seats **tightly** in the vehicle - less than an inch of movement at the BASE near BELT PATH **not** the top.
- If using a safety belt to install, LOCK (use either a separate locking clip or the locking mechanism on the seat) the vehicle safety belt to keep it tight - refer to labels on belt, vehicle owner's manual, and car seat instruction manual.
- Use the lower anchor system if your vehicle and safety seat have such hardware (*see figures*). Unless your vehicle and safety seat both have the anchor system, you will still need to use safety belts to secure your child's seat. Read vehicle owner's manual carefully for proper positioning in the vehicle.
- Do not to use the lower car seat anchors if the **combined** weight of the child and car seat reaches 65 pounds. The seat should be installed using the safety belt system instead.
- Use either the lower anchors **or** safety belt system to install, **not both!**
- Route harness straps at or **below** shoulders when rear-facing.
- Install harness **snugly** (should not allow any slack) - webbing should be straight without sagging or permitting a fold.
- Fasten the chest clip at armpit level.



Step 2: Forward-Facing Seats with Harnesses until Age 5+

- Toddlers and preschoolers 2 years or older should use a forward-facing safety seat with a harness in the back seat until at least age 5. It is safe to rear-face past the age of 2 as long as the child is within the rear-facing weight and height limits of the seat.
- Children should remain in safety seats with harness straps until the maximum weight and height limits for harness straps. Avoid graduating to a booster seat until at least 40 pounds and 5 years old (or later if possible).
- There are a variety of seat options: Convertible, Forward-facing, Combination Toddler/Booster seats.
- Read labels and seat instructions to determine the correct seat for age, weight and height. Maximum forward-facing harness weight range can vary from 40-90+ pounds. (Missing labels? Contact manufacturer for details.)
- Make sure child is within weight/height limits for the seat and head is more than one inch below the top of the car seat shell.
- READ the instruction manual AND the safety belt/seat section in your vehicle manual for proper installation guidance.
- Children under 13 years old should always ride in the back seat.
- Install safety seats **tightly** in the vehicle - less than an inch of movement at the base/seatbelt path.
- If using a safety belt to install, LOCK the vehicle safety belt to keep it tight - refer to labels on belt, vehicle owner's manual, and car seat instruction manual.
- Use the lower anchor and tether system (LATCH) if your vehicle and safety seat have such hardware (*see figures*). Make sure to use an anchor designed for the LATCH system not a cargo anchor. Unless your vehicle and safety seat **both** have the anchor system, you will still need to use safety belts to secure your child's seat. Read vehicle owner's manual carefully for proper positioning in the vehicle.
- Do not to use the lower car seat anchors if the **combined** weight of the child and car seat reaches 65 pounds. The seat should be installed using the safety belt system instead.
- Use either the lower anchors **or** safety belt system to install, **not both!**
- Always use the top tether when forward facing a harnessed seat, regardless of whether you are installing with lower anchors or a



safety belt.

- Position the seat upright when forward-facing.
- Route harness straps at or above shoulders when forward-facing.
- Install harness snugly (no slack) - webbing should be straight without sagging or permitting a fold.
- Fasten the chest clip at armpit level.

Step 3: Booster Seats until the Seat Belt Fits (approx. 4'9")

- Once children are over age 5 and have outgrown weight and height limits for traditional safety seats, they should travel in belt-positioning booster seats in the back seat. They should use a booster until the seat belt fits properly, which does not typically happen until they have reached 4'9" tall and are between 8 and 12 years of age. [[Take the Fit Test](#)]
- Using a booster seat, instead of just a safety belt alone, reduces injury by 45% for 4 to 8-year-olds.
- Many states (including Virginia) require by law that children travel in a child seat or booster seat until **at least** age 8. However, the law does not reflect best practice and is not a good guide for children's safety. Graduation out of a booster seat is determined by proper fit of a safety belt, and many small-frame youngsters will require a booster seat long past the minimum age of 8.
- Booster seats raise children higher so the safety belt fits over strong, bony parts of the body (e.g., hips and chest). Seat belts fit poorly on children's bodies, increasing injury to soft and vulnerable parts of the body (e.g., stomach and neck). Booster seats keep children safe until they are big enough to safely use regular seat belts.
- Does your child pass the Safety Belt Fit Test? Perform this test with the child sitting directly on the vehicle seat without the booster seat. If you answer "NO" to any of these questions, your child is **not** ready to come out of the booster seat:
 1. When sitting all the way back in the vehicle seat, do the child's knees bend comfortably at the edge of the seat and feet rest flat on the floor?
 2. Does the shoulder belt cross the center of the chest and rest on the shoulder, not the neck?
 3. Does the lap belt fit low and snug across the hips, touching the upper thighs?
 4. Can the child stay seated like this for the whole trip?
- Booster seat weight and height ranges vary greatly. Read labels to determine the correct seat for age, weight and height (contact manufacturer if information is missing).
- Both high-back and no-back boosters are available. High-back boosters are useful in vehicles that do not have head restraints/headrests or have low seat backs. High-back boosters also provide

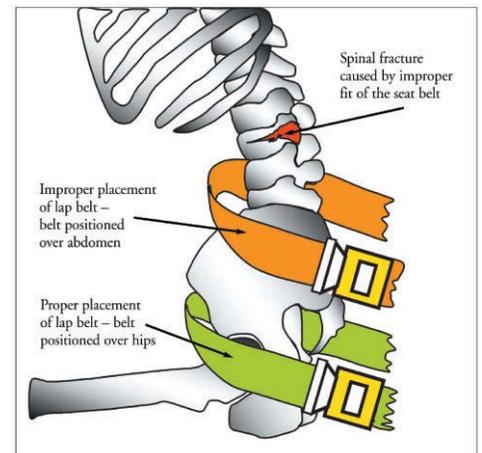


Image Source: The Children's Hospital of Philadelphia.

positioning support for younger kids (e.g., if napping), and may include side-impact protection. Backless boosters are usually less expensive, more portable, and are often more accepted by older children. Backless boosters can be safely used in vehicles with head restraints/headrests and high seat backs.

- Many high-back boosters are actually combination seats. They come with harnesses that can be used for smaller children and can then be removed for older children.
- READ the instruction manual AND the safety belt/seat section in your vehicle manual.
- Children should always ride in the back seat until age 13.
- Lap and shoulder belts are required with booster seats. If you have only lap belts in your car, there are some alternatives, including having shoulder belts installed in your vehicle, using a safety seat with a harness system that goes up to high weights (e.g., 85 lbs.), or using a travel vest (see a list of some available vests at <http://www.healthychildren.org/English/safety-prevention/on-the-go/pages/Car-Safety-Seats-Product-Listing.aspx>).



Step 4: Safety Belts (and Use the Back Seat until Age 13)

- Use booster seats until the safety belt fits properly and approximately 4'9" tall; use lap/shoulder safety belts once children outgrow booster seats.
- When is a child ready for a safety belt?
 1. The child can sit all the way back in the vehicle seat, with knees bent comfortably at the edge of the seat and feet resting comfortably on the floor.
 2. The shoulder belt is crossing the center of the chest and resting on the shoulder (not the neck).
 3. The lap belt fits low and snug across the hips, touching the upper thighs (not the stomach).
 4. The child is able to stay seated like this for the whole trip.
- Make sure your child does not tuck the shoulder belt under her arm or behind her back. This leaves the upper body unprotected, putting your child at risk of severe injury in a crash.
- Lap and shoulder belts are necessary for optimal protection. If you have only lap belts in your car, there are some alternatives, including having shoulder belts installed in your vehicle or using a travel vest (see a list of some available vests at <http://www.healthychildren.org/English/safety-prevention/on-the-go/pages/Car-Safety-Seats-Product-Listing.aspx>).
- Always use the back seat for children under age 13.



Children with Special Needs

- Whenever possible, a caregiver should use a standard child restraint system to transport children with special health care needs.
- Some children may require special seats for a variety of medical conditions, including:
 1. Prematurity, low birth weight
 2. Orthopedic conditions, casts (including hip spica casts)
 3. Cerebral palsy and other neuromuscular disorders
 4. Autism and related disorders
 5. Down's Syndrome



- Some hospitals offer special needs evaluations and fittings; Talk to your physician, nurse, and physical, occupational or rehabilitation therapist for recommendations.
- Lateral support and positioning can be achieved in a standard seat with rolled towels or blankets positioned *around* the child.
- For additional information, consider these helpful sites:
 1. www.preventinjury.org/Special-Needs-Transportation
 2. www.chkd.org/carseats

Safety Restraint Misuse

- Approximately 3 out of 4 safety seats are unintentionally misused. Partial misuse of a safety seat reduces its effectiveness against severe injuries by approximately half.
- Caregivers' top 3 mistakes when installing traditional safety seats include:
 - Failure to secure the seat tightly to the vehicle
 - Failure to secure the harness straps tightly on the child
 - Incorrect positioning of the chest clip
- To help guard against misuse of safety seats, parents should always:
 - READ seat instructions, labels, and vehicle owner's manual
 - Install the seat tightly (less than 1 inch of movement) & lock the safety belt (if not using LATCH system)
 - Position the harness straps tightly with chest clip at armpit level

- The primary cause of injuries from misuse of booster seats is the misrouting of the safety belt. Common misuses of booster seats and safety belts include:
 - Shoulder belts being placed behind the child's back, under the child's arm, or over the booster seat arm rest
 - Shoulder belts not being placed at mid-shoulder position
 - Shoulder belts being positioned too loosely
-

For installation help and more information, consider these helpful sites:

- <http://www.healthychildren.org/English/safety-prevention/on-the-go/pages/default.aspx>
- www.chkd.org/carseats
- www.chop.edu/service/car-seat-safety-for-kids
- <https://www.safekids.org/ultimate-car-seat-guide/>
- <https://www.nhtsa.gov/parents-and-caregivers>

To find a seat check event: <https://www.nhtsa.gov/equipment/car-seats-and-booster-seats#installation-help-inspection>

For more information visit: www.carsafetynow.org or contact carsafetynow@evms.edu