

Child Passenger Safety: What You Should Know Rear-Facing

American Academy of Pediatrics Best Practice Recommendations for Transporting Children Younger Than 2 years of Age

(Published in the April 2011 issue of Pediatrics)

The American Academy of Pediatrics Guidelines:

- ◆ All infants and toddlers should ride in a rear-facing car seat until they are 2 years of age or until they reach the highest weight or height allowed by the car seat's manufacturer.
- ◆ **All children should be secured in the rear seat of the vehicle.**



WHY?

- ◆ Children younger than age 2 are 75 percent less likely to die or to be severely injured in a crash if they are rear-facing.
- ◆ Children in the second year of life are 5 times less likely to die or be seriously injured in a crash if restrained rear-facing compared to forward-facing.
- ◆ A rear-facing car seat supports the head, neck and spine of infants and toddlers in a crash and distributes the crash force over the entire body.
- ◆ In a frontal crash, the rear-facing car seat cradles and moves with the child. It is the shell of the car seat that absorbs the crash forces.
- ◆ Twenty-one percent (21%) of the children in the U.S., who are less than one year of age or 20 pounds, are incorrectly seated forward-facing.



Keeping Children Safe in a Car Seat

- ◆ **Car seat manufacturers recommend replacing car seats that have been in a crash.**
 - ◆ Check the car seat instructions for guidance on when a car seat needs to be replaced.
 - ◆ Check with insurance companies regarding their crash replacement policy.
- ◆ Check the car seat label or the instructions for an **expiration date**. Car seats used beyond their life span are not considered safe.
- ◆ If you are unsure of how to use or install your car seat, contact the Pennsylvania Traffic Injury Prevent Project at 1-800-CAR-BELT or www.pakidstravelsafe.org for information on fitting station locations.

Pennsylvania Child Passenger Safety Law

All drivers are responsible for securing children in the appropriate child restraint system.

All children from birth up to age 4 must be secured in an approved child passenger restraint system anywhere in the vehicle.

- ◆ **A child younger than two years of age shall be secured in a rear-facing child passenger restraint system, to be used until the child outgrows the maximum weight and height limits designated by the car seat manufacturer. (Effective August 12, 2016)**

Violators are subject to a fine of \$75.00, plus Court Costs, \$45.00 Surcharge, \$10.00 EMS, and \$10.00 Administrative Costs.

Total cost: \$140.00 + Court Costs.

Tips to Achieve Correct Use of a Rear-Facing Car Seat

- ✓ **Car Seat Selection**
 - Confirm the car seat is in good condition and has not been recalled.
 - Confirm the car seat has not met the manufacturer's designated expiration date.
 - Read the car seat instructions and/or label to make sure the car seat is appropriate for the child's age, weight and height.
- ✓ **Correct Direction**
 - Keep the child in a rear-facing car seat until age 2 or until they reach the maximum weight or height of the car seat. When the child outgrows the rear-facing car seat, secure the child in a forward-facing car seat.
- ✓ **Seating Location**
 - Secure all children younger than 13 years in the back seat of vehicles for best protection.
- ✓ **Tight Installation**
 - Thread and tighten the seat belt or lower connectors through the correct rear-facing belt path.
 - Confirm the car seat does NOT move side-to-side or front-to-back more than 1-inch when tested at the belt path.
- ✓ **Snug Harness**
 - Place the harness through the correct harness slots at or below the child's shoulders following the car seat manufacturer's instructions.
 - Secure the child with a snug harness. A snug harness does not permit excess webbing to be pinched at the shoulder or hips once the harness is buckled.
 - Place the harness retainer clip at armpit level.

Correct Use of a Rear-Facing Car Seat in 5-Steps

Selection: Choose the Right Car Seat

- ◆ Always read the car seat instructions and the vehicle owner's manual.
- ◆ Always check the minimum and maximum weight allowed for a car seat. Select a car seat that is correct for the child's weight and height.
- ◆ Select a car seat with an adjustable harness height to offer options for children as they grow.
- ◆ Select a car seat that allows the child's head to be at least one-inch (1") from the top of the back of the car seat.



Direction: Face the Car Seat the Right Way

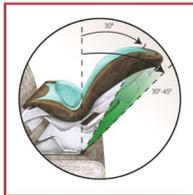
- ◆ Secure a child rear-facing as long as possible, until the child outgrows the weight or height of the car seat.
- ◆ Transfer a child who has outgrown a rear-facing only car seat to a rear-facing convertible car seat until the maximum weight or height is reached.

Location: Install the Car Seat in the Right Spot in the Vehicle

- ◆ Never place a rear-facing car seat in the front seat with an active passenger-side air bag.
- ◆ Read and follow car seat manufacturer's instructions and the vehicle owner's manual to determine the effect of side-impact airbags.

Installation: Secure the Car Seat to the Vehicle in the Right Way

- ◆ Read and follow the car seat manufacturer's instructions for an acceptable rear-facing recline angle.
- ◆ When checking the recline angle, the vehicle must be on a level surface.
 - ◆ Use the recline angle adjuster in the base, as needed to correct the angle.
 - ◆ For car seats that do not have an adjustable base, use a tightly rolled towel or pool noodle placed at the seat bight, if needed to correct the angle.
- ◆ Secure the car seat rear-facing with the vehicle seat belt or lower connectors of the LATCH system.
- ◆ Place the car seat on the vehicle seat and route the seat belt/lower anchor connectors through the correct belt path following the manufacturer's instructions.
- ◆ Buckle the seat belt or attach the lower connectors to the anchors and tighten. **Pull at the belt path to be certain there is no more than one-inch of side-to-side movement.**
- ◆ Check the installation each time the car seat is used.



Harnessing: Place the Child Correctly in the Car Seat

- ◆ Harness straps are positioned **at or below** the shoulder.
- ◆ Harness straps are snugly secured to hold the child in the car seat during a crash.
 - ◆ "A snug strap should not allow any slack. It lies in a relatively straight line without sagging. It does not press on the child's flesh or push the child's body into an un-natural position."
- ◆ Harness retainer clip is positioned at armpit level.



Rear-Facing: Position the Shoulder Harness At or Below Child's Shoulders

When a child is rear-facing the harness straps should be coming out of a slot AT or BELOW shoulder level.

The correct position of the shoulder harness is **at or below** your child's shoulders. Correct shoulder harness height is critical to optimally securing the child and reducing the child's movement in the event of a sudden stop or impact.

Incorrect Installation

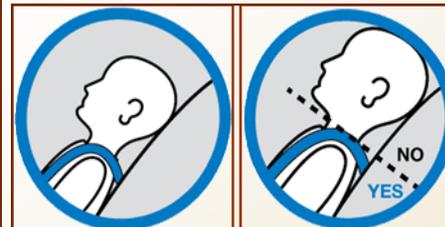
Most crashes happen when the car is moving forward. A rear-facing child's back is pressed against the seatback of the car seat in this type of crash, making it extremely important to keep the child's body from sliding upwards against the car seat's seatback.

The shoulder harness threaded in a slot above the child's shoulders when rear-facing will allow the child to move upwards in a frontal crash. This could allow the child's body to travel twice the distance compared to the proper positioning of the harness at or below the shoulders. (see illustration below) **Many parents do not realize that shoulder harnesses positioned too high for their child has a similar effect as not fully tightening the harness.**

Any upward movement of the child influences the crash performance of a rear-facing car seat. The additional distance the child moves increases the forces exerted on the child's body. The more a child's body moves in a crash, the more the child's head and chest are subjected to increased forces both at the beginning of the collision and while slowing down after the collision.

Correct Installation

The harness straps are anchored snugly **at or below** a rear-facing child's shoulders to better secure the child from sliding upwards.



Correct Position:

The harness straps are positioned snugly below the rear-facing child's shoulders, and hold them securely in place.



Incorrect Position:

DO NOT use shoulder harness strap slots that are above the child's shoulders. In a rear-facing car seat, if the shoulder straps are too high they will not hold your child securely, allowing the child to slide