

# Happy & Healthy Pediatrics

Pediatric, Adolescent, & Breastfeeding Medicine



## Car Seat Safety

In the US, motor vehicle-related crashes are the leading cause of death for children and teens starting at age 3 years and older.

### ***Installation***

The first thing you should do when purchasing a car seat is thoroughly read the owner's manual. There are two ways that a car seat can be installed: using the vehicle's seatbelt or the vehicle's latch system. The manual will clearly outline the proper installation procedure for both. One important note is that most vehicle latch systems have a max weight limit (outlined in your vehicle owner's manual). Be sure not to exceed the weight limit as your child grows.

The safest spot in the car for a child in a car seat is the middle rear spot. If you have multiple car seats, the rule of thumb is to put the youngest child closest to the driver so the driver does not have any trouble getting the child out of the car, and an older child can exit the car on his own on the curbside away from traffic.

The recommendation is to keep your child rear-facing for as long as she can fit that way comfortably-**at least the age of 2 years old, but longer if they still fit comfortably**. The purpose of a rear-facing car seat is to allow the car seat to act as a shell in the case of a forward-facing crash. The seat will protect the head and spine of the child.

Each manufacturer will place an expiration date on a child safety seat, which is normally around six years. While passing down a car seat can save money, make sure it is still safe to use. If you have ever been in an accident with that car seat, you should dispose of it and get a new one, even if it hasn't expired yet.

When purchasing a car seat, check for recalls on the National Highway Traffic Safety Administration website, [nhsta.gov](http://nhsta.gov). While NHSTA issues recalls, it does not certify car seats. The federal government issues crash test performance criteria and each manufacturer crash tests its own products in accordance to this criterion. The manufacturer will then certify the product on its own website.

One of the keys to maximum protection in a crash is that the car safety seat must be installed tightly. It is recommended that it is installed with less than 1 inch of movement from side to side or toward the front of the vehicle when tested at the belt path.

## ***Proper buckling***

In a rear-facing, five-point harness car seat, the hole where the strap goes through on the back of the car seat should be at or below the child's shoulders. In a forward-facing, five-point harness car seat, the loop should be at or above the child's shoulders. The difference is, in a forward car crash, a forward-facing child will lean into the seatbelt when it is higher up rather than having it compress their spine. If the child is rear facing, a lower seatbelt prevents the child from sliding up the back of the car seat.

The straps should be snug and the center closure of the five point harness should be across the nipple line of the child. That will ensure that the closure is over the sternum (the chest bone) and not on the soft tissues of the chest which could get injured during a collision.

Your child should remain in a five point harness car seat for as long as possible. Most current models fit up to 50 lbs or more. Check the weight and height limits on the labels and make sure the shoulders are at or below the top strap slots. Once your child surpasses the highest weight or height allowed by the manufacturer of their car safety seats, then they should be in a high back booster, until the child can pass the five-step test listed.

Bulky coats and snowsuits are not recommended for use with car safety seats because extra material can make it difficult to tighten the harness properly which will decrease the effectiveness of the seat in the event of a crash.

## ***Five-step test to know when your child no longer needs a booster seat.***

When determining whether or not your child still needs a booster seat, you should perform the five-step test as referred to by the National Highway Safety and Traffic Administration.

1. Make sure your child's back is touching the back of the seat.
2. Do her feet touch the floor?
3. Do her knees bend comfortably at the edge of the seat?
4. Does the seat belt cross the shoulder and go across the sternum or chest bone, and the lap belt sit low on the hips?
5. Can the child stay seated, comfortably, this way for the entire duration of the trip?

The ultimate goal is not a certain height, but rather proper seatbelt positioning. Seatbelts are not designed for children under four-foot-nine and do not protect your young child on their own. The booster seat ensures that the seatbelt is placed appropriately on the shoulder and the lap belt sits comfortably on the hipbones. Most kids don't reach this point until 10-12 years of age.

- For best protection, all children should ride in the back seat until they are ready to drive. It's twice as safe as the front seat.
- For information about car seat safety seats and actions to keep your baby safe in and around cars, visit the NHTSA Web site at [www.safercar.gov/parents](http://www.safercar.gov/parents).
- Find a Child Passenger Safety Technician: <http://cert.safekids.org> Click on "Find a Technician".
- Toll Free Auto Safety Hotline: 888-327-4236

- For more detailed information please click here for the link to the AAP website on car seat safety: <https://www.healthychildren.org/English/safety-prevention/on-the-go/Pages/Car-Safety-Seats-Information-for-Families.aspx>



What does **good belt fit** vs. **poor belt fit** look like in a booster?  
Shoulder belt is centered over collarbone  
- not on the neck or off the shoulder  
Lap belt is low and flat on the tops of thighs/hips  
- not riding up on the belly

