

**SafetyBeltSafe USA:** Rear-facing Child Restraints provide the best protection from injury for any child that can fit in one.

Manufacturers are not required to list age limits for child occupants, only weight and height. The wording required by FMVSS 213 on convertibles can imply that children *must* be turned to face forward at a certain weight, regardless of other developmental factors, but this weight is only a *minimum* for which the CR has been certified forward facing, not a mandate. An infant-only restraint is usually outgrown before the child reaches age one, so a convertible restraint is needed to continue to keep the child rear-facing for best protection. Almost all convertibles currently sold in the U.S. are certified to be used rear facing for children up to 30 or 35 lbs.

[http://www.carseat.org/Technical/tech\\_update.htm#rearfacCR](http://www.carseat.org/Technical/tech_update.htm#rearfacCR)

**Dr. Michael Sachs:** One myth which persists among caregivers and health care providers is that a child should be turned forward-facing once he or she reaches 20 lbs, regardless of age. The correct advice is that a child should remain rear-facing for as long as possible, but at least until the child is both 1 year old and 20 lbs... While most convertible seats in use have a maximum rear-facing limit of 20 to 22 pounds, several seats certified for rear-facing use until a child is 30 or 35 pounds have recently come available... Such seats provide an opportunity for children to continue riding rear-facing even beyond their first birthday, increasing their protection until they are 30 to 35 lbs.

[http://www.carseat.org/Resources/Sachs\\_CSS.pdf](http://www.carseat.org/Resources/Sachs_CSS.pdf)

**American Baby Magazine :** Misconception: Once my baby turns age 1 and weighs 20 pounds, I should turn the seat around so she's facing forward.

**The Truth:** A child should stay rear-facing for as long as possible, says Flaura Koplin Winston, MD, PhD, principal investigator of Partners for Child Passenger Safety, a research collaboration between The Children's Hospital of Philadelphia and State Farm Insurance Company. If the infant is facing forward in a frontal crash--which is the most common and most severe type--the body is held back by the car seat's straps, but the head is not, explains Kathleen Weber, director of the Child Passenger Protection Research Program at the University of Michigan Medical School. While older children and adults wearing safety belts may end up with temporary neck injuries, a baby's immature neck bones and pliable ligaments can allow the spine to separate and the spinal cord to rip, says Weber.

**Solution:** Once your child graduates from his infant-only car seat, select a convertible car seat with a minimum 30-pound rear-facing capacity. Make sure it fits securely in your car in both the rear- and forward-facing positions. Keep your child rear-facing until his weight reaches the car seat's maximum rear-facing capacity or until his head is within an inch of the top of the seat, whichever comes first.

<http://www.parentstages.com/article.asp?pid=2413>

---

**CPSafety.com**  
Your child passenger safety resource.



*Rear-facing at 20 months*

# Rear- Facing

## Unmatched Safety



*Rear-Facing at 36 months*

## Rear-Facing – Unmatched Safety

**Rear-facing is the safest position the child can ride in.** All children should stay rear-facing beyond the minimum requirements of 1 year and 20 lbs. They should not be turned forward-facing before they reach the maximum rear-facing limits of a convertible seat - either the maximum rear-facing weight limit or when the top of their head is within one inch of the top of the seat shell. While most parents are aware that they must keep their children rear-facing "until they are AT LEAST 1 year old AND 20 lbs", very few are told that there are significant safety benefits when a child remains rear-facing as long as the seat allows. For most children, rear-facing can and should continue well into the second year of life.

The most common misconception parents have is that children are uncomfortable or at risk for leg injury by having their legs up on the vehicle seat back when kept rear-facing longer. This is completely incorrect. First, children are more flexible than adults so what we perceive as uncomfortable is not so much so for the children. Second, there are NO documented cases of children's legs breaking in a crash due to longer rear-facing. Even if there were, a cast can be put on the leg; with a severed spinal cord from FF too soon (of which there are documented cases) there is no way to repair the damage.

Every milestone in a child's life is exciting! First steps, first word, first day of school. Even car seat milestones seem exciting, but the truth is, they should be looked at with a sense of dread, not longing. Every step in car seat "advancement" is actually reducing the protection your child receives.

In a forward-facing seat, the neck is subjected to massive strain because the head pitches forward. A child's head is much larger in proportion to the body than that of an adult. The head of a small child is about 25 per cent of the body mass whereas the head of an adult is about six per cent! A small child's neck is subjected to much more strain than an adult's neck when facing forward. Additionally, in a forward-facing seat, the head is thrown outside the confines of the seat and can make dangerous contact with other occupants, vehicle structures, and even intruding objects, like trees or other vehicles.

In a rear-facing seat, the head, neck and spine stay correctly aligned and the child is allowed to ride down the crash while the back of the child restraint absorbs the brunt of the crash force. The head is contained within the restraint, and the child is much less likely to come into contact with anything that might cause head injury.

The crash test photo below demonstrates the huge difference in force experienced when forward-facing (left) and rear-facing (right).



Courtesy of University of Michigan  
Child Passenger Protection

In Sweden, children are kept rear-facing up to the age of 5, or as much as 55 lbs. From 1992 through June 1997, only 9 children properly restrained rear-facing have died in motor vehicle crashes in Sweden, and all of these involved catastrophic crashes with severe intrusion and few other survivors. Larger Swedish child restraints are designed to accommodate these larger children. US-certified restraints can be used rear-facing until the maximum weight limit is reached or until the top of the child's head is within one inch of the top of the seat, whichever comes first.

### Experts Say:

**The American Academy of Pediatrics:** (AAP) recommends that babies be kept in rear-facing seats until they reach the maximum weight allowed, as long as the top of the head is below the top of the seat back. When your child is older than 1 year of age and has reached the highest weight or height allowed by the seat for use rear-facing, you may turn the seat forward-facing.

<http://www.aap.org/family/carseatguide.htm>

**ParentCenter.com:** Children have large heads and comparatively weak necks, so in a head-on collision (the most common type of crash) a child's head can jerk forward suddenly and violently, resulting in spinal injuries. For this reason, keep your child rear-facing position as long as possible. (Note: The 12-months-and-20-pounds rule that many parents cite when turning their child forward in the car is actually the *minimum* size and age requirement.)

<http://parentcenter.babycenter.com/refcap/bigkid/safety/1384609.html>