

# Child Passenger Safety: What You Should Know—Belt-Positioning Booster Seats

## How Belt-Positioning Booster Seats Protect Children

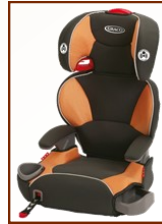
Children who have outgrown their forward-facing car seat by height or weight, but are still too small to ride safely in the vehicle's lap and shoulder belt, should be properly restrained in a belt-positioning booster seat. A belt-positioning booster seat raises and positions the child so the vehicle's lap and shoulder belt fit properly over the strong bones of the child's body. A belt-positioning booster seat helps to position the vehicle's lap and shoulder belt across the center of the child's shoulder and chest, and the lap belt low and snug across the hips/ upper thighs providing a safe transition between the car seat with a harness and the vehicle's seat belt. There are 2 types of belt-positioning booster seats.

### ◆ Backless Belt-Positioning Booster Seat

- ◆ Use only with a lap and shoulder belt in a vehicle seating position with a tall seat back or head restraint so the child's head can be supported, up to the top of the ears.

### ◆ High-Back Belt-Positioning Booster Seat

- ◆ Recommended for vehicles that do not provide head restraint or support for the child's head to provide head, neck, and back support.
- ◆ Many designed with large side "wings" that provide head protection during an impact. They help to contain the head during an impact, and often contain foam designed to absorb energy in a crash.



## Tips to Achieve Correct Use of a Belt-Positioning Booster Seat



### Car Seat Selection

- Select a belt-positioning booster seat only when the child has outgrown a forward-facing car seat with a harness.
- Read the booster seat instructions and/or label for the weight ranges and guidance on correct use.



### Correct Direction

- Place the belt-positioning booster seat forward-facing and flat on the vehicle seat.



### Seating Location

- Select a seating position with a lap and shoulder belt.
- Confirm the child has appropriate head support from either the vehicle seat/head restraint or the belt-positioning booster seat back.
- Move the front seat back as far as possible if a booster seat is used in the front seat.
- Secure all children younger than 13 years in the back seat of vehicles for best protection.



### Tight Installation

- Use only with a lap and shoulder belt.
- Thread the vehicle's lap and shoulder belts through the correct belt path and buckle.



### Snug Harness

- Confirm the lap and shoulder belts are laying flat against the child's body, positioned across the center of the chest and low and snug across the hips.

## Belt-Positioning Booster Seats (Booster Seats)

- ◆ Booster seats are a middle step to protect children who are too big for a car seat and too small for just the seat belt. Booster seats are more than twice as effective in reducing the risk of injury when compared to seat belts alone.
- ◆ Booster seats are held in place by the child's weight and the vehicle's lap and shoulder belt.
- ◆ **Backless Booster Seats:**
  - ◆ The child's ears should not be above the back of the vehicle seat or top of the head restraint.
  - ◆ Most backless booster seats come with a positioner to adjust the shoulder belt height on the child.
- ◆ **High-Back Booster Seats:**
  - ◆ Provide head, neck, and back support for the child.
  - ◆ Recommended for vehicle seats that do not provide support for the child's head; such as those with a low seat back or no head restraint.
  - ◆ Some high-back booster seats can only be used with a vehicle seat or head restraints behind them.
  - ◆ Use only shoulder belt positioners provided with the booster seat.
  - ◆ Some high-back booster seats can be used as backless booster seats by removing the booster seat back.
- ◆ **Booster Seats and Lower Anchor Weight Limits**
  - ◆ Some booster seats have lower anchor connectors to hold the seat in place.
  - ◆ Lower anchors can be used to the maximum child weight allowed by the car seat manufacturer.
    - ◆ When a child is secured in a booster seat, the seat belt absorbs the crash forces and a small amount of force is applied to the lower anchors.
  - ◆ Lower anchor weight limits do not apply to booster seats.
  - ◆ The National Highway Traffic Safety Administration's mandated labels are not intended to apply to booster seats.
- ◆ **Lower Anchors Used to Secure a Booster Seat**
  - ◆ Lower anchor connectors are not required on booster seats. If the booster seat and vehicle manufacturer both allow, the lower anchor connectors can be used if there is no interference with proper use of the seat belt,
    - ◆ If the booster seat is installed properly and the seat belt cannot be placed in proper position on the child's body, discontinue use of the lower anchor connectors
  - ◆ Lower anchor connectors hold the booster seat in place on the vehicle seat.
  - ◆ Read and follow the car seat manufacturer's instructions on tightness of the lower anchor connectors. Some car seat manufacturers require a tight installation, while others prefer the lower anchor connectors remain slack.

# Child Passenger Safety: What You Should Know—Seat Belts

## Recommendations for Children in Seat Belts

Seat belts can be safely used to secure children who are big enough for the seat belt to fit correctly. Seat belts are designed so that the strongest areas of the body, the bones of the hips and shoulder, absorb the forces in a crash. Seat belts prevent occupants from being thrown inside the vehicle, into each other, or from being ejected from the vehicle.

When you can answer 'yes' to all of the following questions, your child is ready to safely sit on a vehicle seat using a lap and shoulder belt without a booster seat:

1. Can your child sit with their lower back against the vehicle seat back?
2. Do your child's knees bend comfortably at the front edge of the vehicle seat and do their feet touch the floor?
3. Does the vehicle shoulder belt cross the center of your child's chest and shoulder?
4. Does the lap belt stay low and snug across the hips near the top of the thighs?
5. Can your child stay comfortably seated with the lap and shoulder belt correctly positioned for the entire trip?



## Tips to Achieve Correct Use of a Seat Belt



### Selection

- Use both a lap and shoulder belt.
- Select a lap belt only seating position if necessary. A lap belt provides no upper body protection, but is better than no restraint.



### Correct Direction

- Secure the child seated forward-facing on the vehicle seat.



### Seating Location

- Select a seating position with a lap and shoulder belt.
- Confirm the child has appropriate head support from the vehicle seat/head restraint.
- Secure all children younger than 13 years in the back seat of vehicle.
- Move the front seat back as far as possible if a front seat is used.



### Tight Installation

- Use a lap and shoulder belt that is buckled.
- Confirm that a child is seated in the proper position for the length of travel.

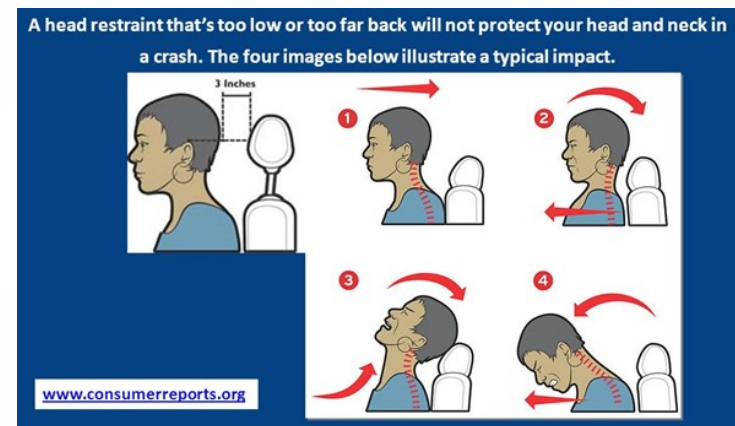


### Snug Harness

- Confirm the lap and shoulder belt are laying flat against the child's body, positioned across the center of the chest and low and snug across the hips.
- Confirm the shoulder belt is not placed under the arm or behind the back.

## Properly Adjusting a Head Restraint

Head restraints are designed to restrict head movement during a rear-impact collision and reduce the chance of neck and shoulder injury. The properly adjusted head restraint provides support to the head in a crash helping to prevent whiplash. Reducing the distance between the back of the head and head restraint will prevent the neck from bending back. It will also reduce the amount of time it takes the head to contact the head restraint, and increase the amount of time that the head is supported during a crash. Whiplash is a term used to describe neck pain following an injury to the soft tissues of the neck (specifically ligaments, tendons, and muscles). It is caused by an abnormal motion or force applied to the neck that causes movement beyond the neck's normal range of motion.



## Correct head restraint adjustment:

- ◆ Adjustable restraints are the most common type. They can be raised or lowered to the proper height, and many can be tilted toward or away from the head. However, they're only effective if adjusted properly.
- ◆ Position the top of a head restraint to reach at least as high as the top of the ears, and preferably the top of the head.
- ◆ Position the head restraint as close to the back of the head as is comfortable. The distance between the back of the head and the head restraint should be no more than 3 inches.

## Remember:

- ◆ Always wear a properly fitted lap and shoulder belt in the back seat.
  - ◆ The lap belt must be snug over the hips/upper thighs.
  - ◆ The shoulder belt must be snug across the center of the chest and shoulder.
- ◆ Correctly position the head restraint behind the head at least as high as the top of the ears and as close to the back of the head as is comfortable.

