

# Child Passenger Safety

Car Crashes & How Car Seats Protect Children



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## Car Crashes

- ▶ Crashes affect children and families everywhere
- ▶ Injuries are reduced by the safety that is built into a car
- ▶ Crashes are different for young children who need extra protection to be safe
  - ▶ Children are safer in the back seat
  - ▶ Car seats and booster seats protect children until the adult seat belt fits



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## Car Crashes in PA

On average in Pennsylvania:

- ▶ Each day 352 reportable traffic crashes occurred (15 crashes per hour)
- ▶ Each day 3 persons were fatally injured in reportable traffic crashes (one fatally every 7 hours)
- ▶ Each day, 214 person were injured in reportable crashes (about 9 injuries per hour)

Based on PA's 2018 population (12,807,060):

- ▶ 1 out of every 44 people was involved in a reportable traffic crash
- ▶ 1 out of every 10,762 people were fatally injured in a reportable traffic crash
- ▶ 1 out of every 164 people were injured in a reportable traffic crash



2018 PA Crash Facts & Statistics

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## Safety in Cars

INSURANCE INSTITUTE  
FOR HIGHWAY SAFETY



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## Back Seats are the Best

- ▶ No frontal airbags
- ▶ Less equipment to impact like the instrumental panel
- ▶ Farther away from crashes to the front of the vehicle which are the most common type of crashes



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## Be a Role Model

- ▶ Small children need adults to keep them safe by securing them properly
- ▶ Older kids need adults to show them how to be safe by buckling up themselves



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### 3 Stages of a Crash

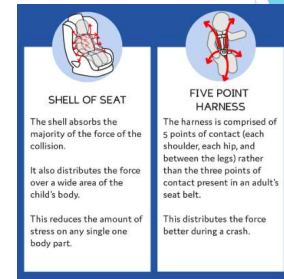
Video courtesy of:  
Insurance  
Institute for  
Highway Safety,  
Arlington,  
Virginia USA.  
[www.iihs.org](http://www.iihs.org)



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### Why Car Seats Work

- ▶ Car seats keep the child in the car
- ▶ Car seats protect the head, neck, and spine
- ▶ Car seats spread the crash forces over a large part of the body
- ▶ Car seats hold a child at the strongest parts of the body - the shoulders and hips



Graphic courtesy of Baby Does NYC

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### Car Seat Types



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### Rear-facing Only

- ▶ Rear-facing offers the best protection for the head, neck and spine of the child
- ▶ Rear-facing seats are reclined at an appropriate angle to provide an open airway for the child



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### Convertible and All-in-one

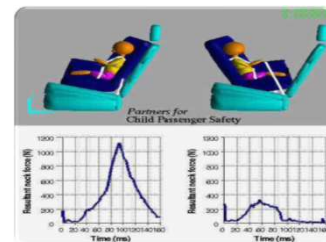
- ▶ Seats can be used rear-facing or forward-facing
- ▶ Children should remain rear-facing for as long as possible - at least age 2 in PA



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### Rear-Facing or Forward-Facing?

Video Courtesy of  
Partners for  
Child Passenger  
Safety



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## Combination

- ▶ Forward-facing with a harness then belt-positioning booster
- ▶ Use the internal harness for as long as possible
- ▶ When harness is removed, use as belt-positioning booster with adult seat belt



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## Belt-Positioning Booster

- ▶ Use with lap and shoulder belt in vehicle
- ▶ Positions the seat belt correctly on the child so the adult seat belt fits



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## Booster Benefit

Video courtesy of:  
Center for Injury  
Research and  
Prevention at  
Children's  
Hospital of  
Philadelphia



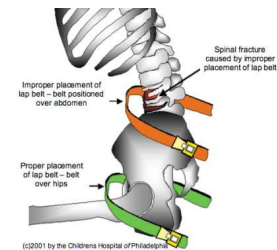
©2018 The Children's Hospital of Philadelphia Research Institute



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## Why use a booster?

The correct position of the  
adult seat belt prevents  
injuries from seat belt  
syndrome



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A child can ride **safely**  
without a **booster** seat  
when you can say **YES** to **ALL 5**



\* To ride safely, most kids need a booster until age 10-12.\*



Image Courtesy of The Car Seat Lady

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## Seat Belt Fit

An adult seat belt fits correctly when:

- ▶ The shoulder belt lies across the middle of the chest and shoulder, not the neck or throat.
- ▶ The lap belt is low and snug across the upper thighs, not the belly.
- ▶ Your child is tall enough to sit against the vehicle seat back with her knees bent over the edge of the seat without slouching and can comfortably stay in this position throughout the trip.



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## Reminders and Resources



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## PA Child Passenger Safety Laws

### Birth - Age 4: Primary Enforcement; Section 4581 (a) (1) Restraint Systems

All drivers are responsible to secure children from birth up to age four 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 height and weight limits designated by the car seat manufacturer. Fine: Maximum fine of \$75 plus additional fees.

### Age 4 - Age 8: Primary Enforcement; Section 4581 (a)(1) .1)

All drivers are responsible to secure children from four up to eight years of age in a seat belt system and an appropriately fitting child booster seat. Fine: Failure to comply with the provisions in 4581 (a) (1.1) shall be guilty of a summary offense with a maximum fine of \$75 plus additional fees.

### The following guidelines are allowed under the law for children ages 4 to 8 who:

- Weigh less than 40 lbs.: May remain securely fastened in a child restraint system with a full harness appropriate for their age and weight.
- Weigh more than 40 lbs. or are 4'9" or taller: May be fastened in the safety belt system without using a child booster seat.
- Ride in a vehicle which was not originally equipped with a shoulder safety belt: Shall be fastened in the safety belt system without the use of a child booster seat or may be fastened in a child passenger restraint system with a full harness.

### Age 8 - Age 18: Primary Enforcement; Section 4581 (a)(2) Restraint Systems

Drivers are responsible to secure themselves and all children from eight through 18 years of age in a seat belt system anywhere in the vehicle. Fine: \$10 plus additional fees.



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## Important Reminders

- ▶ Read the owner's manuals - both for your vehicle(s) and car seat(s)
- ▶ Read the car seat labels
- ▶ Speak with a nationally certified Child Passenger Safety Technician (CPST)
  - ▶ Find a Tech - [cert.safekids.org](http://cert.safekids.org)



NATIONAL  
CHILD  
PASSENGER  
SAFETY  
CERTIFICATION  
A Program of  
Safe Kids Worldwide



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## Resources

- ▶ National Highway Traffic Safety Administration - [nhtsa.gov](http://nhtsa.gov)
- ▶ NHTSA's Parent Central - [safercar.gov](http://safercar.gov)
- ▶ National Child Passenger Safety Certification - [cert.safekids.org](http://cert.safekids.org)
- ▶ Safe Kids Worldwide - [safekids.org](http://safekids.org)
- ▶ Specific Car Seat Manufacturer Websites and YouTube channels
- ▶ American Trauma Society, PA Division - [atspa.org](http://atspa.org)
- ▶ PennDOT - [pennidot.gov](http://pennidot.gov)
- ▶ PA Traffic Injury Prevention Project - [pakidstravelsafe.org](http://pakidstravelsafe.org)
- ▶ Safe Kids PA - [pasafekids.org](http://pasafekids.org)



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Thank you,  
travel safely!



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The American Trauma Society, Pennsylvania Division (ATSPA) is a non-profit trauma prevention education organization.

### ATSPA Mission

Trauma prevention and mitigation through education and advocacy.

### ATSPA Vision

To be the leading provider of evidence-based trauma prevention, education, and resources.



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