

# Car Seat Shopping Guide for Children With Special Needs

## Guidelines for Parents



All children must be transported as safely as possible. However, because of certain health problems, not all children can ride in many of the car seats commonly found in stores. Children with breathing problems, casts, or other health care needs may need to use special car seats. This brochure, developed by the American Academy of Pediatrics, will introduce you to some child restraint options available for children with special health care needs.

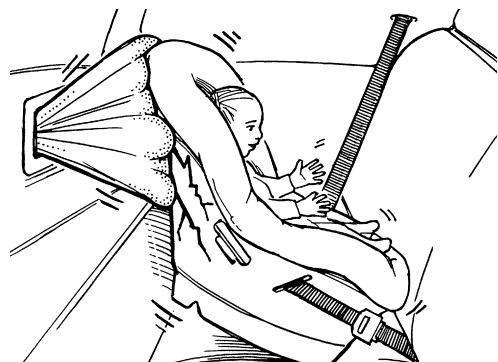
### General guidelines

When transporting a child with special needs, keep the following in mind:

- Talk to your pediatrician about your child's transportation needs. Some children with special health care needs may be able to use standard child restraints.
- Check the label on the seat and make sure it states that the seat meets or exceeds federal safety standards.
- Never try to alter a car seat to fit a child with special health care needs. Never use a car seat that has been changed unless it has been crash tested with the modification.
- New child restraints are being developed every year. Keep up-to-date on what might be available for your child.
- Car seats for children with special needs are often expensive. Check with your pediatrician, local children's hospital, or the National Easter Seal Society (800/221-6827) to find out if there are any car seat loan programs in your area. If not, check to see if your insurance will help cover the cost.
- See "Special needs product information" in this guide for additional information on seats that are available for your child.

### Using the seat

- Read the instructions for both the child restraint **and** your vehicle. Both sets of instructions will be necessary to make sure your child is secure in the seat and the seat is correctly installed in your vehicle.
- The back seat is the safest place for all children to ride. **Never** put a rear-facing infant in front of a passenger-side air bag. In a crash, the air bag inflates very quickly and with great force. The child safety seat could be hit by the air bag and cause serious injuries or even death to the child (see illustration below).
- Never place anything under or behind a child in a child restraint.



### Travel suggestions

- If you have portable equipment (walkers, crutches, oxygen tanks, monitors, etc), make sure they are safely stored and secured during travel so that they do not become flying objects in the event of a crash or sudden stop.
- Make sure any equipment that uses batteries has enough power for at least double the length of your trip.
- Depending on your child's condition, you may want to limit the amount of car travel.
- Make frequent stops if your trip is long.
- Whenever possible, an adult should ride in the back seat next to your child to watch him closely.

### Premature and low birth weight infants

If your baby was born prematurely or is very small, the following information will help you transport your child safely.

- Select a car seat that will fit your tiny baby. Seats that have less than 5 1/2 inches from the crotch strap to the seat back will help keep your baby from slouching forward. Seats that have less than 10 inches from the lowest harness strap position to the seat bottom will keep the harness from crossing over your baby's ears.
- Do not use a car seat with a shield or tray. In a crash or sudden stop, these could injure your infant's neck or head.
- Make sure the harness of the car seat fits over your infant's shoulders and holds your baby in the seat.
- Place rolled receiving blankets on both sides of your baby to center her in the car seat. Place a rolled diaper or washcloth between your child's diaper area and the crotch strap to keep your baby from slipping down (see illustration below).



Some premature infants have breathing problems when they sit semi-upright in a car seat. Make sure your baby is observed and monitored in a car seat by hospital staff before going home. Your child may need to use a car bed if she experiences any of the following while in a car seat:

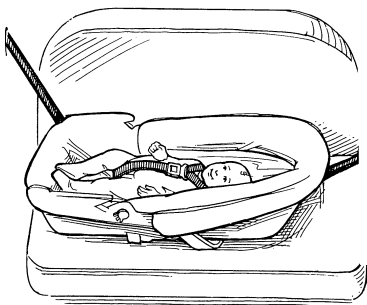
- a decrease in oxygen levels
- slow heart rate
- apnea

## Car beds

There are many reasons why children need to travel lying down in a car bed, including:

- Trouble breathing when sitting upright or semi-upright
- Poor muscle control
- Bones that break very easily
- Recent surgery on the spine
- Wearing a cast

At this time there is one car bed available for infants. The Ultra Dream Ride by Cosco is designed for infants who weigh up to 20 pounds and are up to 26 inches long.



## Infants and toddlers with tracheostomies

Most children with a tracheostomy will fit in a standard car seat. Avoid using child restraints with a tray or shield. In a crash, these could come in contact with the tracheostomy, and injure your child or block his airway.



## Infants and toddlers in hip spica casts

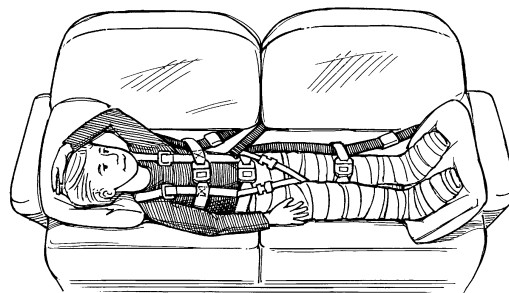
Hip spica casts and other orthopedic devices, such as splints, can make it impossible for a child to sit in a standard car seat. The Spelcast convertible car seat has been designed for children in casts. It is used rear-facing for infants up to 20 pounds and forward-facing for toddlers up to 40 pounds and 40 inches. An optional tether is available for use forward-facing.



## Older children in hip spica casts

The modified E-Z-On Vest is designed for children 2 years and older who weigh up to 100 pounds. It allows a child to lie down in the back seat of the vehicle (see illustration below). It requires two seat belts for installation.

Never use a reclined vehicle seat to transport a child. In a crash, the child can slip out of position and not be protected by the seat belt.



## Children who can sit up in their casts

Children who can sit up in their casts may be able to use a standard car seat. Make sure the cast does not get in the way of the buckle or hit the sides of the restraint. A Spelcast car seat can be useful for children in broomstick casts whose legs are spread widely apart.

If an older child is in a cast and can sit up, she may be able to use a booster seat or a seat belt. Make sure she is using the booster seat or seat belt properly and has enough leg room. The lap belt should be worn low and snug across the hips. The shoulder belt should be across the chest, never behind the back or under the arm. Put padding or blankets on the floor so that the child's legs will be better supported.

## Larger children and child restraints

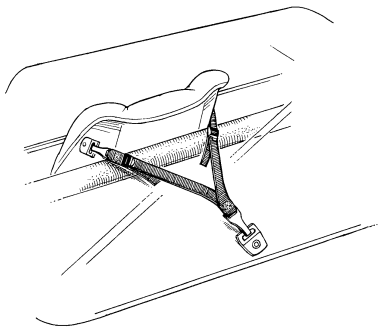
Some children still need the support of a child restraint even after they have outgrown a standard car seat. This would include children with cerebral palsy, poor head/neck control, and various neuromuscular disorders. There are seats available that fit children who weigh up to 105 pounds (see illustration). These car seats come with extra pads and accessories to help position the child in the seat. Work with an occupational or physical therapist to position your child in these types of seats. These child restraints also come with an extra strap called a tether. The tether, along with the vehicle seat belt, must be used to install the restraint correctly.

If your older child does not need a larger car seat but has difficulty sitting still in a vehicle or gets out of his seat belt, an upright vest is available from E-Z-On Products. It is installed in the car with the vehicle seat belts and a tether. In a bus, it must be installed with the seat belt and a special strap called a cam wrap.



## Tether straps

Many child restraints designed for children with special health care needs must be installed with a tether strap and a seat belt. A tether strap attaches to the restraint and is bolted into your car (see illustration). The tether strap and hardware come from the car seat manufacturer and limit forward movement of the car seat in the vehicle. Some cars come with holes already drilled for tethers. Others need to have holes drilled for installation. If your car seat requires a tether, be sure to take your vehicle to a dealer who can help you find the hole or drill one for you. Never drill a hole yourself. You could puncture the gas line or damage your vehicle.

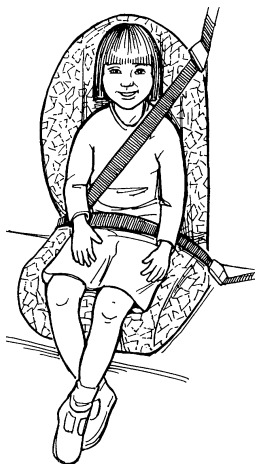


## Older children and belt-positioning boosters or seat belts

If your child is able to sit up unassisted and is too large for a standard car seat, a belt-positioning booster car seat should be used until your child is large enough to use a seat belt. A belt-positioning booster seat will help position the seat belts on your child's body and will fit your child until she weighs about 60–80 pounds. There are different kinds of belt-positioning boosters and it is important you get the type that will fit your child and work with the seat belts in your car.

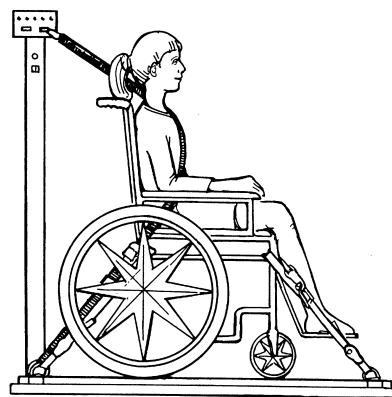
Belt-positioning booster seats raise a child up so that the lap and shoulder belts fit properly (see illustration). This helps protect the upper body and head. These seats must be used with a lap/shoulder belt. Some come with additional harnesses that can be used for children at lower weights.

When your child is ready to wear a seat belt, make sure it fits properly. Remember, lap belts need to be worn low and snug on the hips. Shoulder belts should be worn across the chest. Never place a shoulder belt behind a child's back or under a child's arms. This could result in injury to the child.



## Children and wheelchairs

Most wheelchairs are not crash tested. Whenever possible, buckle your child in a car seat, booster, or use seat belts depending on the child's size and development. If you transport your child in a wheelchair, install it in a forward-facing position with four-point tie-down devices attached to the main frame of the wheelchair (see illustration). Then restrain your child separately with a shoulder/lap belt. Positioning belts used with wheelchairs are not safety restraints. Lap trays attached to the wheelchair should be removed and secured separately during transport. If a child is going to school and has an Individual Education Plan (IEP), he should be evaluated for any special transportation needs. Discuss this with the child's therapist or school transport personnel.



## Medical equipment

If your child must travel with medical equipment, the equipment will also need to be secured in the vehicle. At this time, there is no single product available to secure medical equipment. Recommendations include wedging the equipment on the vehicle floor with pillows or securing it with bungee cords or seat belts not being used by a passenger.

## Special needs product information

### Standard Infant Seats

Manufacturer:	Varies
Price:	Varies
Weight limits:	Up to 20–22 pounds
Height limits:	Up to 26 inches
Conditions:	Premature or low birthweight infants
Comments:	Smaller seats recommended. Use seats without shield or tray. Use rolled receiving blankets along both sides for lateral support.

### Standard Convertible Seats

Manufacturer:	Varies
Price:	Varies
Weight limits:	Rear-facing up to 20–30 pounds; forward-facing up to 40 pounds
Height limits:	Up to 40 inches
Conditions:	Poor head and neck control, tracheostomies, long-leg casts, eyeglasses
Comments:	These should be used rear-facing for all children until they are at least one year of age AND at least 20 pounds. Look for a seat that can be used rear-facing at higher weights for larger babies or children with poor head and neck control. In forward-facing position, use a seat that can be semi-reclined for children with poor head and neck control. Use five-point harness for children with tracheostomies, eyeglasses. Placement of the harness should be checked to avoid excessive irritation against a gastrostomy tube.

### Carrie Car Seat

Manufacturer:	Sammons Preston/Tumble Forms PO Box 5071 Bolingbrook, IL 60440 800/631-7277
Price:	\$400–500, depending on size
Weight limits:	Four sizes: 20–40 pounds (preschool), 30–60 pounds (elementary), 50–100 pounds (junior), or 60–130 pounds (small adult)
Height limits:	30–38 inches (preschool), 38–48 inches (elementary), 48–58 inches (junior), or 58–68 inches (small adult)
Conditions:	Poor head and neck control
Comments:	Lateral head supports and molded seat shape. Tether required. Comes in 4 sizes.

### Columbia Positioning Seat

Manufacturer:	Columbia Medical PO Box 633 Pacific Palisades, CA 90270 310/454-6612
Price:	\$649 with free shipping
Weight limits:	20–102 pounds
Height limits:	Up to 60 inches
Conditions:	Poor head and neck or trunk control
Comments:	Comes with adjustable head support pads, four positioning pads, and abductor pad. Optional seat depth extender. Five-point harness. Tether required for installation for children over 65 pounds.

### Ultra Dream Ride Car Bed

Manufacturer:	Cosco 2525 State Street Columbus, IN 47201 800/544-1108
Price:	\$59
Weight limits:	Up to 20 pounds
Height limits:	Up to 26 inches
Conditions:	Useful for babies who must travel flat due to conditions such as breathing problems, osteogenesis imperfecta, Pierre Robin sequence, myelomeningocele or spina bifida, and orthopedic conditions.
Comments:	If baby must travel prone, he will outgrow it much sooner than 20 pounds.

### Gorilla Postural Seat

Manufacturer:	Snug Seat, Inc PO Box 1739 Matthews, NC 28106 800/336-SNUG
Price:	\$525
Weight limits:	20–105 pounds
Height limits:	Child's head not to extend above car seat back
Comments:	Forward-facing only. Tether required. Comes with adjustable head support pads. Optional recline wedge of 15 degrees and optional pads available.

### Kid-EZB Bus Transit Model

Manufacturer:	Sunrise Medical 732 Cruiser Lane Belgrade, MT 59714 800/388-5278
Price:	\$2,200
Weight limits:	Seat is built on basis of measurement not weight. Can go to 14" seating depth, depending on model
Height limits:	Company will ask specific measurements of child
Conditions:	Poor head and neck control
Comments:	Bus transit model. Mobility base has undergone dynamic crash testing. Suggest Q-strait and Kinedyne tie downs.

### **Mullholand Growth Guidance System**

Manufacturer: Positioning Systems, Inc  
215 N 12th Street  
PO Box 391  
Santa Paula, CA 93060  
805/525-7165

Price: \$2,500–4,000

Weight limits: Up to 50 pounds

Height limits: None

Conditions: Poor head and neck control

Comments: Postural support system with stroller base. Remove from stroller for installation in vehicle. Requires a tether. Install in bus or van only with Positioning Systems, Inc tie-down system.

### **Ortho Kinetics Travel Chair**

Manufacturer: Ortho-Kinetics  
Springdale Road  
PO Box 1647  
Waukesha, WI 53187  
800/824-1068

Price: \$799–849 depending on size

Weight limits: Two sizes: 15–45 pounds or 25–90 pounds

Height limits: 30–48 inches or 36–54 inches

Conditions: Poor head and neck control

Comments: Travel chair with stroller base. Can be used in a bus with a Q-strait or Kinedyne tie-down system.

### **Snug Seat 1 Postural Seat**

Manufacturer: Snug Seat, Inc  
PO Box 1739  
Matthews, NC 28106  
800/336-SNUG

Price: \$750

Weight limits: 20–45 pounds

Height limits: Child's head not to extend above car seat back height

Comments: Forward-facing only. Tether required. Optional pads available. Heavy duty stroller base has been crash tested for use in vehicle.

### **Snug Seat 2 Postural Seat**

Manufacturer: Snug Seat, Inc  
PO Box 1739  
Matthews, NC 28106  
800/336-SNUG

Price: \$595

Weight limits: 20–70 pounds

Height limits: Up to 60 inches

Comments: Forward-facing only. Tether required. Optional pads available. Optional stroller base available.

### **Snug Seat 1000 Belt Positioning Booster**

Manufacturer: Snug Seat, Inc  
PO Box 1739  
Matthews, NC 28106  
800/336-SNUG

Price: \$295

Weight limits: 30–60 pounds

Height limits: Child's head not to extend above the car seat back

Comments: Forward-facing only. Belt-positioning booster with internal harness. Requires shoulder/lap belt. Comes with adjustable head support pads, built-in abduction, upper extremity positioning support. Optional trunk and hip pads available. Lightweight.

### **Spelcast Convertible**

Manufacturer: Snug Seat, Inc  
PO Box 1739  
Matthews, NC 28106  
800/336-SNUG

Price: \$275

Weight limits: Up to 20 pounds rear-facing; up to 40 pounds forward-facing

Height limits: Head should not go above seat

Conditions: Designed for infants and toddlers who cannot use a standard car seat due to hip spica casts or other orthopedic devices.

Comments: Tether recommended for forward-facing position.

## **Vests**

### **BESI Restraining Harness**

Manufacturer: Besi Manufacturing  
9445 Sutton Place  
Hamilton, OH 45011  
800/543-8222

Price: \$67.60

Weight limits: Up to 164 pounds

Height limits: None; for waists 22–43 inches

Conditions: Behavioral conditions, poor trunk control, designed to replace car seat on school bus

Comments: For school bus use only. Needs hip measurement. Adjustable sizes. Cam wrap required for school bus installation along with lap belt.

### **EZ-On Vest**

Manufacturer: EZ-On Products, Inc  
500 Commerce Way West, Suite 3  
Jupiter, FL 33458  
800/323-6598

Price: \$77–82 (varies with size and model)

Weight limits: Recommended for ages 2 years and older and 40–164 pounds

Height limits: None; for waists 22–43 inches

Conditions: Behavioral conditions, poor trunk control

Comments: Standard and fully adjustable sizes. Optional crotch strap. Tether required for vehicle installation; cam wrap required for school bus installation. Styles include “adjustable” zippers and shoulder straps.

### **Modified EZ-On Vest**

Manufacturer: EZ-On Products, Inc  
500 Commerce Way West, Suite 3  
Jupiter, FL 33458  
800/323-6598

Price: \$115.25

Weight limits: Recommended for ages 2 years and older; 25–100 pounds

Height limits: Child must fit lengthwise in a bench seat. Sizes are for hips 22–32 inches

Conditions: For older children who must lie down

Comments: Need hip measurement to determine size. Standard and adjustable models. Optional crotch strap. Requires two seat belts for installation.

### **Standard belt positioning booster seats**

Manufacturer: Varies

Price: Varies

Weight limits: Up to 80 pounds with lap/shoulder belt

Height limits: Varies

Conditions: For children who can sit up unassisted

Comments: Some high-backed belt-positioning boosters come with an internal harness and act as a forward-facing child safety seat for children 22–40 pounds.

### **For additional information**

American Academy of Pediatrics  
141 Northwest Point Blvd  
PO Box 927  
Elk Grove Village, IL 60009-0927  
847/228-5005

Automotive Safety for Children Program  
Riley Hospital for Children  
575 West Drive, Room 004  
Indianapolis, IN 46202  
317/274-2977

Kids Are Riding Safe/Special Kids Are  
Riding Safe  
National Easter Seal Society  
230 W. Monroe  
11th Floor  
Chicago, IL 60606  
800/221-6827

Mobile Teaching School Bus Project  
Department of Community Education  
Riley Hospital for Children  
575 West Drive, Room 008  
Indianapolis, IN 46202  
317/278-0506

There may be car seats available that are not listed in this brochure. The products listed here are current only as of the date of publication.

Suggested retail prices may vary.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

**From your doctor**

