



## Child Restraints: New Products On Market

Every fall the juvenile products industry holds its annual trade sales show in Dallas. This retail-oriented event provides a look at the new and future child restraints. The devices mentioned below are on the market or expected to reach the market this year. Only seats with innovative or unusual features are included here. NOTE: for lack of a better term, we use "toddler/booster seat" to indicate forward-facing seats with 5-point harnesses that can be removed for continued use as a belt-positioning booster.

### Highlights:

- more belt-positioning boosters (BPB) that are rated for weight limits higher than 60-65 pounds;
- more convertible seats able to hold a 30-pound baby rear-facing (Evenflo *Medallion* and Cosco *Touriva* are the newest);
- more bases for infant-only seats that adjust to fit seat slope as well as one convertible (Evenflo *Bravo*) that does so;
- more tether-compatible seats;
- one seat that converts to hold a child from infancy to 70 pounds;
- more combination toddler/booster seats.

### Britax

Under development: an infant-only restraint and a bigger booster.

The Roundabout continues to be tether-ready, both rear-facing (up to 30 lb.) and forward-facing (to 40 lb.).

### Century

Many products now have a two-part harness retainer clip.

The *Smart Move XT* with 5-point harness includes a tether. All Century convertibles and toddler/booster seats made after certain dates are tether-compatible. (Dates differ from model to model. Check instructions with seat or call customer service).

*Bravo* is a convertible seat that goes to 30 pounds rear-facing. It is available with a 5-point harness (also available with a shield) and is tether-compatible. It has an adjustable-recline base to level the seat

in the rear-facing position.

The *Encore* is another new convertible seat. Its upper rear-facing weight limit is 22 pounds.

### Cosco

Cosco won an award for innovation at the show, with the *Alpha Omega*, a convertible which goes from birth to 70 pounds. It has three recline positions and comes with either a five-point harness or an overhead shield. The shield or harness is removable to convert the seat to a belt-positioning booster at 40 pounds.

The head restraint slides up and down to four positions, moving the harness with it. This means that the user never has to rethread the harness through different sets of slots.

The *Touriva* now goes up to 30 pounds rear-facing. There was a design change, so older versions cannot be used to the higher weight. Check the instructions to make sure of the limit on a particular seat. The *Touriva*, *Olympian*, *Regal Ride* and *Alpha Omega* convertibles are all tether compatible.

The *High Back Booster* goes from 22-70 pounds, with two harness strap positions. Switching harness positions does not require rethreading. A bar secures the straps from the back side in the lower position.

The "Eddie Bauer" edition of the *High-Back Booster* has a harness adjuster on the front of the seat, which is very convenient.

### Early Development

Not new, but unique in today's market: the base of the *Guardian Double Up* Belt-Positioning Booster has adjustable height. When the back is removed, the base can be turned over; one side boosts the child up higher than the other.

### Evenflo

The convertible *Horizon*, which goes to 30 lb. rear-facing, is now coming with an overhead shield (as well as the 5-point harness model) but without the standard tether. It can be ordered for non-retail pro-

grams with the 5-point harness but without the tether to keep the price low. Tether kits can be ordered for these seats.

The *Medallion VXL* has a rear-facing limit of 30 pounds, beginning 1/4/99.

*First Choice* is a new inexpensive infant-only model (\$35-40), like the *Discovery* but with no base.

The *On My Way* infant-only seat has a *Position Right* base that compensates for the slope of the vehicle seat (up to a ten degree incline).

The *Discovery* base, *Position Right* base, and the original *On My Way* base can be purchased in multiples, so the parent can install one in each of several vehicles.

*Horizon V* and some *Ultara V* models ("Osh Kosh") are tether ready. All plastic frame convertible seats are tether compatible as are two older tubular frame models (*Seven-Year* and *One-Step*).

The *Right Fit* backless BPB is still being sold, despite rumors to the contrary. It is available through Burlington's Baby Depot stores and various specialty stores nationwide.

The *Secure Comfort* high-back BPB is styled to appeal to "big kids" with a sporty athletic stripe cover. Its back is more reclined and padded (for comfort while sleeping) than many similar models and it fits kids from 35 to 70 pounds. The *2-in-1* toddler seat/BPB is being phased out.

### Fisher-Price

New in 1998 is the *Safe Embrace Infant Car Seat*, which has the built-in lock-off for the shoulder belt (like the *Safe Embrace Convertible*). The infant car seat has

continued, p. 8

### What is FMVSS 225?

FMVSS 225 is the pending requirement, Tether Anchorages and Child Restraint Anchorage Systems, for universal child restraint vehicle anchors. Rule expected at any moment. SRN will cover it in the spring issue.



# Child Passenger Safety TECH REPORT

## New Products, continued

a five-point harness but does not have a harness retainer clip. Its level indicator is a line on the side.

The *Safe Embrace Convertible Car Seat* has a standard tether. The harness retainer clip for the forward-facing position has been added because of consumer demand.

**NOTE:** Fisher-Price engineers intentionally designed its restraint systems so a chest clip (harness retainer clip) is not needed in the rear-facing position. Lack of the clip should not be considered misuse of its rear-facing seats.

The *Safe Embrace Booster Car Seat* has been redesigned to have deeper sidewings and a plastic shoulder belt positioner.

## Graco

The *Snug Ride* is a new infant-only seat with separate adjustable base. It has two versions, the Snug Ride (3-point harness) and the Snug Ride DX5, a 5-point harness with a center-pull strap for adjustment. The base is designed to fit well with various contours of vehicle seats. The angle indicator is a pendulum. The base is longer than some infant CRs and may extend off the edge of the seat. Make sure the lowest part of the interior of the seat (where the child's buttocks are) is over the vehicle cushion.

The *Cherish* car bed (for babies under 9 pounds, especially premature infants who must lie flat) is available from the Center for Injury Prevention, 1-800-344-7580 or [www.bucklebear.org](http://www.bucklebear.org).

## Kolcraft

The *Secura* is an infant-only seat with a separate base. The base is high and contoured. It has a level line.

*Prodigy* is a BPB with lines to show minimum and maximum shoulder height for occupants. It has a label on the pad warning users to restrain the child with a lap and shoulder belt, never a lap-only belt.

Kolcraft is not yet supplying tether kits for its convertible seats, although it reports that the *Auto-Mate* and *Performa* models are tether compatible.

## Safeline

A tether strap kit is now available for all *Sit'n'Stroll* seats. It will be usable in both rear-facing and forward-facing positions. In the rear-facing position, the tether is anchored below and forward of the CRS.

## National Call for Boosters Use up to 80 Pounds

For National Child Passenger Safety Week, a number of national organizations and agencies, including NHTSA, the Society for Automotive Engineers, the American Academy of Pediatrics, National Transportation Safety Board, and the Centers for Disease Control issued a recommendation for booster seat use by children up to 80 pounds and 58 inches tall.

For details, see *Morbidity and Mortality Weekly Report*, 2/5/99, or [www.cdc.gov/epo/mmwr/mmwr.html](http://www.cdc.gov/epo/mmwr/mmwr.html).

## SAFE KIDS Study Shows Extent of Misuse

The National SAFE KIDS Campaign has released an analysis of misuse of 17,500 restraints seen at checkups. The Seat belt was not holding the CRS tightly in 63 percent of the cases and harness straps were not snug in 33 percent.

For a copy, contact SAFE KIDS, at 202/662-0600 or see the web site, [www.safekids.org](http://www.safekids.org).

## Safety Alert

**Galaxy 2000 Belt Positioning Booster**, models 960 and 961 (42,000 items). Improper placement of the shoulder belt could cause excessive chest forces, increasing the risk of injury. A revised instruction booklet will be sent to owners.

The 960, a backless booster, should be used with the shoulder belt OVER, not under, the little armrest/belt guide next to the buckle. The 961, which has a removable back, should be used this way when the back is not in place.

**Contact:** Basic Comfort, 1-800-456-8687.

## Blue Ribbon Panel Addresses Older Children

Traffic crashes are the leading cause of death for children from ages five to fifteen. Many of these children are too small to fit in adult belt systems, while many others are unrestrained. Restraint use among children over age one is 20 to 25 percent-age points below that of infants, according to a NHTSA survey in 1998. To address these children, the U.S. Secretary of Transportation, Rodney Slater, announced a second Blue Ribbon Panel, "Protecting Our Older Children," in November 1998.

The panel is comprised of experts from medical, law enforcement, safety, and child development fields, as well as industry and public officials. It is on a fast track to come up with recommendations. One important first step will be a survey of parents' knowledge and practices.

The following sub-committees are working on a very tight timetable:

- Legislation, Sen. John Cullerton, chair
- Attitudes/Knowledge/Behavior, Flaura Winston, MD, chair
- Marketing/Public Education, Judith Stone, Advocates for Highway and Auto Safety, chair
- Design and Regulation of Restraints for Children Age 4-15, Marilyn Bull, MD, chair

Final recommendations are expected by late March, but four dealing with stronger restraint use laws have already been announced. In addition, the panel has prepared a model law.

The group also has recommended that NHTSA conduct focus groups to assess the perceptions of children ages five to eight regarding the term "booster seats" to and identify a more positive term if necessary.

Contact: Phil Haseltine, Panel Chair, ACTS, 703/243-7501.



## Certification Update

As of February 1999, there are 1210 certified technicians and 248 certified technician instructors.

### CPS Review Board:

The National Highway Traffic Safety Administration will initiate the establishment of a Child Passenger Safety Review Board. Members will include representatives of national organizations that have played a role in the establishment and/or implementation of the Standardized Child Passenger Safety Training Program and AAA Certification Program, advocates, child seat and vehicle manufacturers, and injury prevention and health organizations. The board will be comprised of approximately 15 members, with at least four certified as either technicians or technician instructors in the NHTSA Standardized CPS Training Program.

The purpose of the board is to provide overall policy and program direction and maintain the national standardized curriculum, test, and standards for implementation. It is anticipated that the first meeting of this Board will be in March 1999.

### Recertification:

Once established, the board will review the certification process and determine the acceptability of a recertification program and move to develop and implement the program. All certified individuals will be notified of recertification procedures upon availability. Until that time, any current certification will remain in effect.

### NHTSA CPS Website Additions:

Newly posted on the NHTSA website (<http://www.nhtsa.dot.gov>) is information regarding The Standardized Child Passenger Safety Training Program (<http://www.nhtsa.dot.gov/people/injury/childps/Training/index.html>) including the newly

developed Child Passenger Safety Training Programs brochure. Also available is a CPS contact list (<http://www.nhtsa.dot.gov/people/injury/childps/Contacts/index.cfm>) which includes the contact information for individuals who have completed the standardized CPS training and have signed a waiver permitting their information to be posted on the web.

### Safe Ride News Subscriptions

A decision has been made to de-link subscriptions to *Safe Ride News* from the certification fee. Therefore, people must subscribe and renew their subscriptions independently, beginning in January 1999. Individuals will receive renewal notices directly from SRN.

Flyers for *Safe Ride News* subscriptions that instructors can use for their classes are available. The discount for certified technicians will be offered to people who attend training. Call 206/364-5696.

## Q: Does a child with a physical disability need a special safety seat?

**A:** Not necessarily. Always find out first if the child's individual physical and medical needs can be met with a conventional child restraint before progressing to a specialty device. A child restraint/traffic safety specialist and a physician or therapist should combine their expertise to determine whether the child's physical tolerances require any special accommodation.

All children have the same basic need for safety. Just as there is no "universal" best safety seat for children of a particular age, there may be more than one restraint that works for children with the same disability. Each child should be assessed the same way, by age, height/length, weight, and physical/developmental tolerances. Look at vehicle compatibility and examine the array of potential restraints that could suit both child and vehicle.

Consider access and convenience issues as well. Sometimes insurance will reimburse for one type of restraint but not another. (The less expensive but often effective conventional device may be the one

that is not reimbursable. It is also easier to buy outright.) Expense is one factor, but there are other trade-offs in terms of fit and protection in using a conventional CRS vs a specialty seat.. Whatever decision is made, the parents must be informed of the trade-offs and the reasons for the decision.

Some conditions that may be met with a conventional restraint, depending on individual factors, include:

- **Breathing problems or poor head control:** consider a CRS that can be reclined rear-facing for up to 30 pounds or one that can be used in the reclined, forward-facing position (per manufacturer's instructions) for a child weighing from 30-40 pounds;
- **Small height and low weight for age:** continue to keep rear-facing as long as possible (beyond age one) while under 30 pounds using a convertible CRS that has an upper weight limit of 30 pounds facing the rear.
- **Tracheostomy:** use CRSs with 5-point-harnesses; avoid restraints with shields.
- **Hip spica cast:** some toddler/booster seats with harnesses and belt-positioning boosters with low sides provide good fit for some hip casts.

- **Moderate to slight muscle tone weakness:** some high-back boosters with contoured sides provide enough support.

If a specialty device is required, find out from your local children's hospital if there is a local safety seat loan program that handles such products for short-term needs. If a purchase is necessary, manufacturers' web sites and toll-free numbers allow direct ordering. Some conventional products for special transportation needs are available through CIP, 800-344-7580 or [www.cipsafe.org](http://www.cipsafe.org).

To learn more about this issue:

- Best introduction: AAP Policy Statement, "Transporting Children With Special Needs," 1993 (revision expected shortly) and the new AAP "Car Seat Shopping Guide for Children with Special Needs" See [www.aap.org](http://www.aap.org) (for Policy Statement, click on Professional Education).
- Links at [www.safetysal.org](http://www.safetysal.org).

**Contributors:** Sue Miller Smith, mgr., Equipment Access/Injury Prevention Services, Easter Seal Soc. of Central Ohio, and Marilyn J. Bull, MD, member, Am. Academy of Pediatrics Committee on Injury and Poison Prevention; Editorial Board member, SRN; Automotive Safety for Children Program, Riley Hospital for Children, Indianapolis, IN.



## Review: What are the different kinds of locking clips and how are they used?

There are two varieties of “H” shaped clips that may be needed, especially in vehicles made before model year 1996, to lock the safety belt around the child restraint. Both are loosely called locking clips. They are:

- 1) the “regular locking clip” that comes with every car seat and is used to hold together the lap and shoulder belt at the sliding latch plate; and
- 2) the tougher, heavy-duty clip (called a “belt shortening clip” in the current technical training curriculum) that is provided by an auto manufacturer and is used to shorten a lap belt that does not lock (ELR retractor). Some, but not all, are slightly longer than the regular locking clip. (Some Kolcraft locking clips are marked “heavy duty” but should not be used in this manner.)

The regular locking clip is placed next to the sliding latchplate to clip the lap and shoulder portions of the belt together. It prevents the webbing from sliding through the latchplate, elongating the lap part during normal driving. It must NOT be put farther than an inch or so from the latchplate. Users are often tempted to put it on the door-side of the child restraint, where it is easy to reach. This placement adds slack to the system and could allow the locking clip to fly off during a crash and the child restraint to move forward much too far.

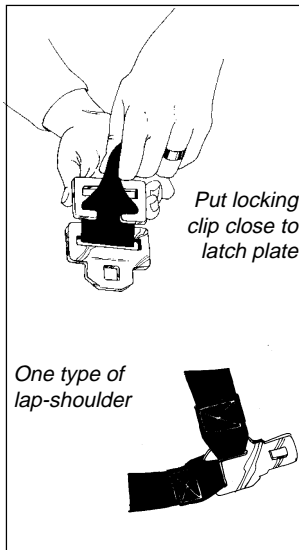
### Belt shortening methods

There are very specific belt types that need a belt-shortening clip to create a tight anchorage for a child restraint:

- Lap-only belt with an emergency locking retractor, which locks only in a crash
- Lap-shoulder belt comprised of two separate belts stitched at the latch plate, where the lap part has an emergency locking retractor

Instructions regarding shortening the belt appear in the owner’s manual for some

vehicles where they are needed. In most cases, the instructions do not make clear that **ONLY** the locking clip supplied by the vehicle manufacturer should be used. Consumers who have a locking clip from a child seat manufacturer often mistakenly use that in place of the vehicle clip. **A regular locking clip should NEVER be used to shorten a belt**, although a “belt-shortening clip” can be used to lock a sliding latchplate. The regular clips that come with child restraints have been shown in dynamic tests to be too weak to handle the high crash force on a belt that has been shortened with a clip.



The belt-shortening locking clip comes only from certain vehicle manufacturers. It is made of hardened steel but may be almost impossible to distinguish from the regular clip. The only way to make **ABSOLUTELY** sure you have a belt-shortening clip is to have its original packaging with the model number. There is no universal marker for them.

The Ford and Toyota clips come with instructions for shortening a lap belt. Others may not, in which case they rely on the instructions in the owner’s manual. To complicate matters, the Ford and Toyota instructions are slightly different. Toyota calls for use of a second locking clip if the belt is not short enough with one. Ford instructs users to create a loop to take up slack, so only one clip is needed to shorten a belt of any length. The Ford method has been shown in dynamic tests to be effective (SBS USA tests, U. of Mich., 1991).

### Avoid use with manual lap belt

Neither type of locking clip should be used on a manually-tightened lap-only belt. When a locking clip is used to lock a sliding latchplate on a lap/shoulder belt, the retractor in the shoulder belt would take the force of a crash. With a lap-only belt,

the free end of the belt has no retractor to lock it tight. The locking clip by itself is NOT capable of holding the force of the crash.

### Locking Clip Tips for Techs:

It is always wise to check to see if a retractor on a lap or shoulder belt is switchable (converts to an automatic locking retractor) before advising a consumer to use either type of locking clip. (The switchable retractor was installed in a few models from the 1994-95 model years and in many since 1996.)

Checkup organizers often obtain a supply of belt-shortening clips to use if needed for either type of installation. **Avoid** giving belt-shortening instructions out without also giving the correct type of clip!

### Part Numbers for Belt Shortening Clips

Auto dealer parts departments may not know what to give you when you ask for a locking clip or belt-shortening clip. To order from a vehicle manufacturer, ask for these specific model numbers:

**Ford:** F1VZ-6161248-A (includes instructions for belt shortening)

**General Motors:** 94844571

**Nissan:** H8010-89970

**Toyota:** 73119-22010 (comes with directions that do not include the loop)

## Tethering Notes

**Goodyear** is no longer doing tether installations for Fisher-Price Safe Embrace owners. Most parents seem to have found the tether installation easier than expected.

**General Motors** continues to provide installation free for one seat in most 1989 and later GM vehicles. Additional installations cost approximately \$12 plus parts.

**Ford** and **Mazda** provide the tether hardware free and include detailed instructions to assist the consumer in doing the installation themselves.

**Tethering Child Restraints**, a unique manual on tethering, will be published in April. For details, call Safe Ride News, 206/364-5696.