Child Restraint Manufacturer
Efforts to Increase Tether Use
Manufacturers Know Tethers Work!
Regulatory Highlights

1971: Original FMVSS 213 does not include dynamic tests, but requires the use of a seat belt to hold the car seat in the vehicle and a harness to hold the child in the car seat.

1981: FMVSS 213-80 requires 30 mph frontal crash test, buckle release force, specified labeling and instruction criteria for rear-facing infant restraints, car beds, and forward-facing restraints for children under 50 lbs.

1985: FMVSS 213 requires an untethered misuse test of seats to assure that they function adequately without tethers, effectively eliminating tethers from future CR designs.


1999: FMVSS 213 LATCH phase-in schedule requires that all forward-facing CRs must pass a reduced head excursion test of 28 inches and most models include tether straps.

Low Tether Use Research

Study Examples:

1974 (IIHS) 53% Used
2003 (Safe Kids) 47% Used
2010 (IIHS) 43% Used
2013 (IIHS/UMTRI) 56% Used*
2016 (Safe Kids) 36% Used*

* much higher tether usage with LA
Reducing Head Injury Potential

TETHER ✓

VS.

NO TETHER ✗
Transfer Energy Away from Child

Reduce Pay Out Phase
- Slack removed early in crash
- Non-energy absorbing motion

Extend Ride Down Phase
- System fully loaded earlier
- Energy absorbing motion
Energy Distribution: Tethered
Energy Distribution: Untethered
Compared Energy Distribution for Design

Tether

No Tether
Compensation for User Errors
How do we Help Fix the Problems?

**Top reasons for not using tethers**
Among drivers who installed child restraint

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>didn’t know it was there</td>
<td>22</td>
</tr>
<tr>
<td>didn’t know how to use</td>
<td>15</td>
</tr>
<tr>
<td>in a hurry/not enough time</td>
<td>13</td>
</tr>
<tr>
<td>didn’t know where to attach</td>
<td>10</td>
</tr>
<tr>
<td>not important or needed</td>
<td>9</td>
</tr>
<tr>
<td>didn’t know they had tether anchor</td>
<td>8</td>
</tr>
<tr>
<td>no anchor for seating position</td>
<td>5</td>
</tr>
</tbody>
</table>
Icons Identify Correct Anchor Points

- Ceiling or frame around rear door
- Rear shelf of sedans
- Back wall of pick-up trucks
- Back of seat
- Cargo area
- Lower seat anchor
Enhance Labels with Icons & Instructions
Include Tethers on Required Labels
Instructions: MUST use the Tether!
Example: Stronger & Clearer Instructions

Your vehicle’s features may be considerably different than those pictured here.

You must always attach, adjust, and secure the top anchorage (tether) strap when installing the child restraint forward-facing with internal harness. Tethers improve the installation and stability of child restraints and reduce the risk of injury.

Attach the tether hook to the tether anchor designated by your vehicle manufacturer for that seating position. Check your vehicle owner’s manual for more information.

If the seating position does not have a tether anchor, use a different seating position or see your dealer or a qualified mechanic and have one installed.

WARNING

Using this child restraint without the tether strap anchored as recommended by the manufacturer would be a misuse of the child restraint and, in a sudden stop or crash, could result in serious injury or death.

Do not fasten multiple tether hooks on the same tether anchor in the vehicle.
Highlight Tether with Color

Red Alert
Strategic Storage Locations
Additional Efforts to Increase Tether Use

- Tether call-outs on packaging
- Social media educational campaigns
- Web & print educational campaigns
- Point of purchase displays
- Continuing education for consumer services agents
Have a child passenger safety question? Go to the source:

Resources & online CEUs: www.cpsboard.org
Curriculum Videos: www.youtube.com/cpsboard
Connect with others through NCPSB Social Media:
  - Facebook: www.facebook.com/cpsboard
  - Twitter: www.twitter.com/ncpsb

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