

Shoulder Belt Positioning Devices: Cautions and Recommendations

The National Highway Traffic Safety Administration has conducted tests on three of these products, which are not regulated by any safety standard. Many similar products were not included in the tests. In addition, the manufacturers of the products tested are not obligated to revise their products or include warnings to the public based on concerns raised by test results. SafetyBeltSafe U.S.A. has requested that NHTSA adopt standards for after-market products used with child restraints and vehicle safety belts, none of which are covered by existing regulations.

Excerpts from “Evaluation of Devices to Improve Shoulder Belt Fit,” based on tests conducted by the National Highway Traffic Safety Administration, published in August, 1996:

The apparent leading motivation behind the development of these types of devices is to improve lap/shoulder belt fit... [but] the performance of the vehicle’s restraint system should not be detrimentally affected by the use of such a device. All of the devices evaluated in this study produced some degradation in the performance of the lap/shoulder belt system... With the increase in belt comfort due to OEM [vehicle] equipment, it is anticipated that the need for after market belt fit devices will decrease.

After discussing the test results with several safety experts, SafetyBeltSafe makes the following recommendations:

Do not use any of these devices for children if they can use a booster to improve the positioning of the combination lap and shoulder belt and the fit of the vehicle seat. Most boosters are certified for use up to 100 lbs. or more.

Try special products or home-made remedies to improve comfort without changing the position of the belt. Examples: wrap a protective sleeve made of soft fabric around the part of the shoulder belt that touches the neck; use the collar of the occupant’s shirt or dress to keep the shoulder belt from scraping the neck; keep a small, soft towel in the car which can be used by passengers as needed.

Use belt-positioning features built into the vehicle or included with the booster seat. Check the vehicle owner’s manual to find out if the shoulder belt can be adjusted where it comes out of the side pillar or with a clip attached to the vehicle seat. Remember that the purpose of a belt-positioning device is just to improve comfort, not to prevent neck injuries. Make sure that:

- The positioning device is made of fabric or plastic, to prevent possible injury from bent or broken parts during a crash.
- The device is connected only to the shoulder belt, not to the lap belt. Otherwise, the lap belt could be pulled upward, possibly resulting in abdominal injury.
- Minimal slack is added to the shoulder portion of the belt.
- The belt is not placed near the top of the arm, allowing upper body to be thrust out of the belt.

For short adults and children too heavy or too wide to fit in a booster, consider purchasing a harness system or special needs safety seat, most of which require use of a tether strap attached to a heavy-duty tether anchor to the vehicle, which must be installed by a mechanic.

The complete report is available to the public from the National Technical Information Service, Springfield, Virginia 22161.

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