

SAFETY BELTS FAIL TO PROVIDE NEEDED PROTECTION IN ROLLOVER CRASHES: CONGRESSIONAL ACTION ESSENTIAL

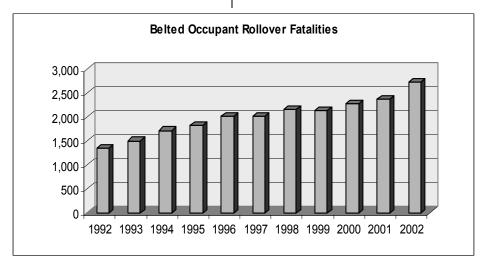
When new vehicle safety standards are debated, a typical response on the part of the auto industry is to call attention to safety belt use rates among drivers.

While automakers do have a point — using a safety belt is far safer than not using one — the public effort to increase safety belt use has not included any detailed examination of whether belts are effective in rollover crashes, a type of crash that is now one-third of all deaths. There is no federal safety standard for belt performance in rollover crashes.

A recent report by Public Citizen, Rolling Over on Safety: The Hidden Failures of Belts in Rollover Crashes, asked: How effective are safety belts in a rollover crash and are belts well designed to protect people in rollover crashes?

The report found that belts are not doing what they can and should to prevent deaths and injuries.

- Twenty-one percent of the people killed in rollover crashes were documented in police reports as restrained by safety belts at the time of the crash.¹
- Forty-two percent of the people killed in all crashes were wearing a safety belt.
- Federal data show that 22,000 people who were wearing a safety belt died in rollover crashes in the U.S. between 1992 and 2002. The number of belted people who died over the past decade in rollovers doubled between 1992 and 2002.
- While safety belts reduce a person's chance of *complete* ejection from a vehicle during a rollover, in 2001 alone over 1,000 belted occupants killed in rollover crashes were *partially* ejected.³



For 37 years, since the first federal belt safety standard took effect, no federal test of belt performance in rollover crashes has been required.

In an article in the *Los Angeles Times* last year, NHTSA researchers admitted that belts fail in rollover crashes

"You can slip out of the belt," said Joseph Kanianthra, vehicle safety research chief for NHTSA. "The belts are designed for holding you in place primarily in a frontal collision. In a rollover, suddenly gravity acts against you. The belt can give way and the occupant can go down."

In 1968, a Ford Motor Company executive noted in an internal study of roof collapse in rollovers that: "It is obvious that occupants that are restrained in upright positions are more susceptible to injury from a collapsed roof than unrestrained occupants who are free to tumble about the interior of the vehicle. It seems unjust to penalize people wearing effective restraint systems by exposing them to more severe injuries than they might expect with no restraints." (Emphasis added.)

While belt failure in rollovers is fixable with several cost-effective and available solutions, the real fix is in **Title IV of S. 1072**, the **Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA) of 2003**, which contains a new safety standard to evaluate the performance of safety belts in rollovers. The bill is now being reconciled between the House and Senate – **Conferees should preserve its safeguards for American motorists**.

Title IV of S. 1072 would save thousands of lives:

- A new roof crush resistance standard: 1,400 deaths and 2,300 severe injuries, including paraplegia and quadriplegia, could be prevented each year.⁵
- Improved head protection and side air bags: 1,200 lives could be saved, and 975 serious head injuries prevented, each year.
- Side window glazing ("safety glass"): 1,305 lives and prevent 575 major injuries each year. 7
- Rollover prevention standard that evaluates the use of electronic stability control (ESC): Studies estimate ESC reduces deaths and injuries by as much as one-third, saving as many as 2,100 lives a year in rollover crashes alone.⁸
- Compatibility rules for light trucks: 1,000 lives a year could be saved.⁹
- Stronger seatback design: 400 deaths, 1,000 serious injuries prevented a year. 10
- ➤ **Upgrade to standard for door locks and latches:** An upgrade would help to prevent hundreds of the 2,500 door-related ejection deaths each year. ¹¹
- **Effective seat belt reminders in all seats: 900 lives** each year could be saved. 12

Notes

¹ National Center for Statistics and Analysis, National Highway Traffic Safety Administration, Occupant Fatalities in Vehicles with Rollover by Year, Restraint Use, Ejection, and Vehicle Body Type. FARS 1992-2001 FINAL & 2002 ARF, Washington, DC: NHTSA, Sept 2003.

² National Center for Statistics and Analysis, National Highway Traffic Safety Administration, Occupant Fatalities in Vehicles with Rollover by Year, Restraint Use, Ejection, and Vehicle Body Type. FARS 1992-2001 FINAL & 2002 ARF, Washington, DC: NHTSA, Sept 2003.

³ Occupant Fatalities in Vehicles with Rollover, 27.

⁴ Ricardo Alonso-Zaldivar, "SUV Deaths Put Design of Seat Belts in Question," Los Angeles Times, June 22, 2003.

⁵ Plungis, Jeff. "Lax auto safety rules cost thousands of lives." *Detroit News* 3 March 2002.

⁶ "NHTSA's New Head Protection Rule Puts New Technology on Fast Track." Press Release. Washington: NHTSA, 30 July 1998.

Willke, Donald; Stephen Summers; Jing Wang; John Lee; Susan Partyka; Stephen Duffy. Ejection Mitigation Using Advanced Glazing: Status Report II. Washington: NHTSA and Transportation Research Center, August 1999.

⁸ Schöpf, Hans-Joachim. (2002). Analysis of Crash Statistics Mercedes Passenger Cars Are Involved In Fewer Accidents. Germany: DaimlerChrysler AG. 11.

9 Joksch, Hans. Fatality Risks in Collisions Between Cars and Light Trucks. Final Report. Ann Arbor:

Transportation Research Institute, Sept 1998.

¹⁰ Plungis, Jeff. "Lax auto safety rules cost thousands of lives." *Detroit News* 3 March 2002.

¹¹ Plungis, Jeff. "Lax auto safety rules cost thousands of lives." *Detroit News* 3 March 2002.

¹² The UCS Guardian & Guardian XSE: A Blue Print For A Better SUV. Washington: Union of Concerned Scientists, 2003. www.suvsolutions.org/blueprint.asp.