



Child Restraint Re-use After Minor Crashes

NHTSA Position

- NHTSA recommends that child safety seats be replaced following a moderate or severe crash in order to ensure a continued high level of crash protection for child passengers.
- NHTSA recommends that child safety seats do not automatically need to be replaced following a minor crash.
- Minor crashes are those that meet ALL of the following criteria:
 - The vehicle was able to be driven away from the crash site;
 - The vehicle door nearest the safety seat was undamaged;
 - There were no injuries to any of the vehicle occupants;
 - The air bags (if present) did not deploy; AND
 - There is no visible damage to the safety seat
- Clarifying the need for child seat replacement will reduce the number of children unnecessarily riding without a child safety seat while a replacement seat is being acquired, and the number of children who will have to ride without a child seat if a seat were discarded and not replaced. The clarification will also reduce the financial burden of unnecessary replacement.

Background

- Recent studies demonstrate that child safety seats can withstand minor crash impacts without any documented degradation in subsequent performance.
- The Insurance Corporation of British Columbia (ICBC) subjected nine new and used child seats restraining 3-year-old dummies to a series of 50 consecutive 15 km/h sled tests into a 40% offset barrier. Three seats were inspected visually; no damage was apparent as a result of the impacts. Three seats underwent x-ray inspection; no damage was detected. Three seats were tested in accordance with Canadian federal standards (CMVSS 213) and were found to be in compliance with all standards.
- ICBC performed four vehicle crash tests at 48 and 64 km/h, with two child seats restraining 3-year-old dummies in each vehicle. Each seat was subjected to multiple impacts and

visually inspected. Defects were noted and the seats were re-tested. Seats always performed as well in subsequent tests as they did in the first test.

- The Insurance Institute for Highway Safety (IIHS) performed 30 mph vehicle crash tests with dummies from six months to three years in a variety of child restraint systems (CRSs). Most seats sustained minor damage (e.g., frayed webbing, small cracks in the hard plastic shell, strain-whitening on the plastic shell or chest clip) but all dummies remained well secured by the restraints. Four of the damaged seats were subjected to three additional 30 mph crash tests. Although additional minor damage was observed in subsequent tests, the seats met all federal standards.
- The agency searched for, but was unable to find any cases in which a child safety seats were damaged in a minor crash (as defined in **NHTSA Position**).

Note:

The agency is committed to maintaining policies that are science-based and data-driven. Stakeholders with data that address post crash re-use of child safety seats are encouraged to provide this information to the agency.