

# Little fingers, big trouble: Study sheds light on child self-unbuckling

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It can be quite jarring for a parent or caregiver to look in the rearview mirror while driving and see their child roaming around the backseat free of their safety restraints. A study on child self-unbuckling by Yale School of Medicine researchers reveals that most children who first unbuckle were age three and under and that many children unbuckle while the vehicle is in motion—putting them at a 3.5-fold increased risk for serious injuries.

"We found that young children might acquire the motor skills to unbuckle from restraints before developing the cognitive ability to understand the necessity of automotive restraints," said Lilia Reyes, M.D., clinical fellow in Yale School of Medicine's Department of Pediatrics, Section of Emergency Medicine, who will present the results of the study at the Pediatric Academic Societies meeting in Denver, Colo. on May 1.

"This pilot study elucidates a potential safety hazard in child motor vehicle restraint that needs to be addressed," said Reyes, who points to National Highway Traffic Safety Administration data showing that motor vehicle collisions are the leading cause of death among 4- to 8-year-olds.

Reyes and co-authors sought to determine the age at which a child begins to self-unbuckle, and also the frequency of children self-unbuckling while the car is in motion versus at a full stop. The team surveyed a sample of parents with children less than six years of age. One hundred

surveys were distributed to five urban and suburban general pediatric offices in Connecticut. The authors collected information about the age and gender of children in the household and current safety seat use. Parents were asked at what age their children first unbuckled themselves from their safety restraints and whether the car was in motion or at a full stop.

The team found that 75% of children who self-unbuckle were age three and under, with an age range of 12 to 78 months. Unbuckling was reported as early as 12 months of age and was more common in boys than girls. Of the children self-unbuckling, 43% did so while the car was in motion. Twenty-nine percent of children who unbuckle are in a five-point restraint and do so more commonly from the chest buckle. The most common parental response to self-unbuckling while the car was in motion was "pull over, reprimand, and re-buckle the child."

Reyes said that further research should include a larger prospective study to assess which restraint device would be safer. "Perhaps passive safety locks on the seatbelt can be developed as a potential option for intervention," said Reyes. "Keeping precious cargo safe is our duty."

Provided by Yale University

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