

Study finds booster car seats not being used appropriately

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While child booster car seat use has increased across the United States, many seats are improperly installed, leading to increased risk of serious injury for their little passengers.

Researchers from the Automotive Safety Program at Riley Hospital for Children and Indiana University School of Medicine have found that an alarming two-thirds of the booster seats observed in a study conducted throughout Indiana were not being used appropriately.

The analysis of the survey of 564 children in booster seats, conducted at 25 fast food restaurants and discount stores appears in the May 2009 issue of the journal *Accident Analysis and Prevention*.

Booster seats raise their young occupants so that an adult seat belt fits correctly, decreasing risk of serious injury in a crash. Forty-four states now require that children who have outgrown a standard car seat with a 5-point harness use a booster seat when riding in a car or truck. Since use of the booster seat has increased, the researchers decided to investigate whether they are being used appropriately. They found major misuses in the transport of 65 percent of the children including such errors as a slack shoulder belt or placement of the shoulder belt behind the child's back, under an arm, or over an arm rest.

"Our findings clearly show that booster seats are not protecting children because of user error. Parents need to know how to safely place a child in a booster, supervise the buckling up of children who put themselves in

the seat, and double check that the shoulder and lap belts restraining the children remain properly positioned during the drive. Resources to help parents are available from preventinjury.org and www.nhtsa.gov," said Joseph O'Neil, M.D., associate professor of pediatrics at the IU School of Medicine and a Riley Hospital pediatrician, who is the first author of the new study.

According to Dr. O'Neil, children of any age, who have outgrown child car seats, need a booster seat until, when sitting against the automobile's seat back, their knees extend over the seat at a 90 degree angle and ideally their feet touch the floor. As with car seats for younger children, booster seats should only be installed in the back seat of a vehicle. He urges parents to have all children under age 13 ride in the back seat to minimize their exposure to front impact collisions and powerful airbags.

"NASCAR drivers often walk away from high speed crashes because they wear helmets and use five-point harnesses. That's the similar type of restraint found in infant and children's car seats. Parents should keep their [children](#) in this type of car seat as long as possible. But when they become too big they should be placed in booster seats and they should be kept in booster seats until they fit the seat belt of the [car](#) or truck in which they are riding, no matter their age" said Dr. O'Neil.

Source: Indiana University ([news](#) : [web](#))

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