

66 children a day treated in US emergency departments for shopping cart-related injuries

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Although a voluntary shopping cart safety standard was implemented in the United States in 2004, the overall number and rate of injuries to children associated with shopping carts have not decreased. In fact, the number and rate of concussions/closed head injuries have continued to climb, according to a new study.

The study, conducted by researchers in the Center for Injury Research and Policy of The Research Institute at Nationwide Children's Hospital, examined data relating to children younger than 15 years of age who were treated in U.S. emergency departments (EDs) from 1990 through 2011 for an injury associated with a shopping cart. An estimated 530,494 injured children were documented during the study period, averaging more than 24,000 children annually – which equals 66 children per day or one [child](#) every 22 minutes treated in an ED.

The study, recently published in the January print issue of *Clinical Pediatrics*, found that falls from a shopping cart accounted for the majority of injuries (70.4 percent), followed by running into/falling over the cart, cart tip overs and entrapment of extremities in the cart. The most commonly injured body region was the head (78.1 percent). While soft tissue injuries were the most common diagnosis for these [head injuries](#), the annual rate of concussions and closed head injuries (which are concussions and internal head injuries) increased significantly by more than 200 percent during the study period, with the number of these

injuries going from 3,483 injuries in 1990 to 12,333 in 2011. Most of this increase was associated with children ages 0 to 4 years.

"The findings from our study show that the current voluntary standards for shopping cart safety are not adequate," said Gary Smith, MD, DrPH, director of the Center for Injury Research and Policy at Nationwide Children's Hospital. "Not only have the overall number of child injuries associated with shopping carts not decreased since implementation of the safety standards, but the number of concussions and closed head injuries is actually increasing. It is time we take action to protect our children by strengthening shopping cart safety standards with requirements that will more effectively prevent tip-overs and falls from shopping carts."

Suggested design changes include improving performance standards for restraint systems and placing the child seating area near the floor. This latter design change would be safer, because it would reduce the risk of cart tip-over by lowering the center of gravity of the cart and decrease the risk of injury from falls because the child is much closer to the ground.

In addition to design changes, researchers noted that interventions designed to teach parents how to safely use shopping carts, store-wide broadcasts encouraging cart safety belt use, and having store employees encourage families to use the cart safety belts would also help reduce the number of shopping cart-related injuries.

"It is important for parents to understand that shopping carts can be a source of serious injury for their children," explained Dr. Smith, also a professor of pediatrics at The Ohio State University College of Medicine. "However, they can reduce the risk of injury by taking a few simple steps of precaution, such as always using the shopping cart safety belts if their child needs to ride in the cart."

Other tips for preventing shopping cart-related injuries include:

- Whenever possible, choose alternatives to placing your child in a shopping cart.
- Always use the shopping cart safety straps. Be sure your child is snugly secured in the straps and that the child's legs are placed through the leg openings. If parts of the cart restraint system are missing or are not working, choose another cart.
- Use a cart that has a child seat that is low to the ground, if one is available.
- Make sure your child remains seated.
- Stay with the cart and your child at all times.
- Avoid placing infant carriers on top of shopping carts. If your child is not old enough to sit upright by himself in the shopping cart seat, consider other options such as leaving your child at home with another adult while you are at the store, using in-store child care areas, using a front- or back-pack carrier, or using a stroller.

Provided by Nationwide Children's Hospital

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