

New study released on nontraffic injuries and fatalities in young children

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Credit: Brown University

Over the last couple of decades, significant reductions in vehicle crash-related child fatalities have been attributed to advances in legislation,

public safety campaigns and engineering. However, less is known about nontraffic injuries and fatalities (occurring primarily in driveways and parking lots) to children in and around motor vehicles.

A new *Traffic Injury Prevention* journal study, Unintentional Nontraffic Injury and Fatal Events: Threats to Children In and Around Motor Vehicles, describes the frequency of various nontraffic incidents, injuries, and fatalities to children using a unique surveillance system and database. The database was developed and is maintained by KidsAndCars.org, a national nonprofit organization dedicated to keeping children safe in and around [motor vehicles](#). Examples of nontraffic events include backovers, children left in hot vehicles, frontovers, children inadvertently knocking vehicles into gear, and others.

The new study describes the national incidence of various nontraffic incidents, injuries, and fatalities to children in the United States using a comprehensive, longstanding surveillance system and database. Prior studies have focused on certain types of nontraffic mechanisms such as backovers, heatstroke, power window strangulation, trunk entrapment, etc. In addition to focusing on just a single mechanism, many of these studies have also been limited by institutional or regional estimates, or a narrow time period. The National Highway Traffic Safety Administration (NHTSA) has published recent periodic nontraffic incident summaries, including those with child-specific data. The significance of this study is that it is the first detailed analysis that includes all types of nontraffic vehicular dangers to young children.

Instances of nontraffic injuries and fatalities in the United States to children 0-14 years were tracked from 1990-2014 using a compilation of sources including media reports, individual accounts from victims and their families, medical examiner reports, police reports, child death review teams, coroner reports, medical professionals, lawyers and various modes of publications. There were over 11,750 distinct incidents

in a variety of venues and vehicles affecting 14,568 children 14 years and younger, resulting in nearly 3,400 deaths of which 47 percent of whom were male, and with an average age of 42 months.

"While we have made great progress in reducing injuries to children in motor [vehicle](#) crashes, this study describes the burden of nontraffic incidents and deaths to children 14 years old and younger over a 25-year period, including: children left in hot vehicles, backovers, frontovers, and other mechanisms," said Dr. Mark Zonfrillo, a pediatric emergency medicine physician and [injury](#) researcher from Hasbro Children's Hospital and Alpert Medical School of Brown University, and lead author of the study. "These nontraffic incidents present an important and often underreported threat to the safety and lives of young [children](#), and are completely preventable" he added.

"These issues have been masked for decades by the age-old problem of, no data; no problem. Once thought of and referred to as 'freak accidents,' this study reveals just how common nontraffic incidents really are," said Janette Fennell, president and founder of KidsAndCars.org. "Continued education, engineering modifications, advocacy, and legislation can help continue to prevent these incidents and must be incorporated into overall child vehicle safety initiatives."

More information: Mark R. Zonfrillo et al, Unintentional nontraffic injury and fatal events: threats to children in and around vehicles, *Traffic Injury Prevention* (2017). [DOI: 10.1080/15389588.2017.1369053](#)

Provided by Brown University

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