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Backover Crash

What is a backover crash?

A backover crash occurs when a vehicle backs into a person such as a pedestrian or bicyclist, often when exiting a driveway or parking spot. These crashes typically are at low speeds. Crashes that involve multiple vehicles or vehicles that back into objects aren't considered backover crashes.

How widespread is the backover problem?

Government databases generally record only crashes on public roads, but most backover crashes occur in driveways and parking lots. Until recently no federal data system collected information on all backover crashes in the United States. An overall picture could be gleaned from a review of crash data from the National Highway Traffic Safety Administration (NHTSA), hospital emergency department records, death certificates, and media sources. Because these sources may not capture all of the deaths and injuries, Congress directed NHTSA to develop a database of injuries and deaths in nontraffic events involving motor vehicles. ¹ In 2009, NHTSA launched the Not-in-Traffic Surveillance (NiTS) crash database of nontraffic events resulting in injuries and deaths, which can be used to calculate a national annual estimate. Based on 2007-2011 NiTs data and data about onroad crashes, NHTSA estimates that 267 deaths and about 15,000 injuries occur annually in backover crashes. ²

Most backover incidents don't happen on public roads. NHTSA estimates that 39 percent of backover fatalities occur in residential spaces such as driveways and the parking lots of apartment and townhouse complexes. ⁷ Nonresidential parking lots account for only 17 percent of backover fatalities, but 52 percent of backover injuries.

Three Australian studies have looked at the circumstances surrounding the deaths of children in low-speed run-over crashes, including cases in which the vehicles were moving forward as well as reversing. A study of deaths of children younger than 5 in 2000-10 found that 37 percent of the deaths occurred in residential driveways and 11 percent occurred on public roads. ⁴ A review of child deaths in driveway crashes in 1996-98 showed 86 percent of the drivers were members of the struck child's family or family friends. ⁸ A study in Queensland

found that parents were driving in 11 of the 15 low-speed run-over fatalities of children that occurred in the state in 2004-08.⁹

What types of vehicles are most often involved?

An analysis of driveway backovers involving children in Utah in 1998-2003 found that children were more likely to be injured by a pickup truck, minivan or SUV than a car, relative to the number of registered vehicles of each type, although the difference between SUVs and cars was not significant.¹⁰ Larger vehicles like SUVs and pickup trucks typically have bigger blind zones than cars,^{11, 12} in large part because they sit higher off the ground, making it more difficult for drivers to see children and smaller objects near the rear of the vehicle. *Consumer Reports* measures distances behind the rear of a vehicle that a driver cannot see and has found that a 5-foot-8-inch-tall driver in an average midsize SUV can see up to 18 feet behind the vehicle, compared with 13 feet for an average midsize sedan.¹³ NHTSA measurements of rear visibility also have found that blind zones for shorter drivers are typically much bigger.

Technology may never be 100 percent effective so drivers will always need to be vigilant. The national "Spot the Tot" campaign, developed by Safe Kids Utah, encourages drivers to walk completely around a vehicle before getting in and to roll down windows to hear what is happening near the vehicle before backing.²¹ It also suggests teaching children to move away from a vehicle when started and to have them stand in full view of the driver when backing. An Australian review of crashes in which children were run over at low speeds found that more than three-quarters of drivers were unaware that a child was in the immediate vicinity of the vehicle at the time the crash occurred.⁴

Separating children's play areas from driveways also may help. A study in New Zealand in the 1990s found that children in homes without a fence separating the driveway from the play area were 3½ times more likely to be killed or injured in a driveway crash.²²

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