

# California trauma teams unite to reduce child injuries and deaths due to vehicle backovers



School children sit at the rear of this vehicle to demonstrate the "blind zone" outlined in blue.

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Every week in the United States, at least 50 children are backed over in driveways or parking lots. In many cases, their injuries and deaths are due to vehicle “blind zones.” Backovers are by far the most common cause (49.5 percent) of nontraffic fatalities for children aged 15 and under.

Recently, at Father Keith B. Kenny public elementary school in Sacramento, [UC Davis Children's Hospital](#) announced its collaboration with other California hospital trauma centers and KIDS AND CARS to increase awareness of vehicle backovers, highlight issues of vehicle “blind zones” and offer ideas — from commonsense to high-tech — for reducing injuries and deaths to children.

“It is so much easier to keep children safe in and around cars when we know where they are,” said Roxanne Woods, a registered nurse and coordinator of the Trauma Prevention and Outreach Program for UC Davis Children's Hospital. “No one ever wants to back over a child. However, it is impossible to avoid hitting something you simply cannot see from the driver's seat. 'Blind zones' behind cars can range from 12 feet to 50 feet, depending on the type of vehicle and the height of the driver.”

Woods is also principal investigator for the UC Davis Nontraffic Injuries to Children Study, part of a unique California-wide research effort to collect and share data on vehicle backovers.

“It is heartbreaking to interview families involved in the study,” said Woods. “It is their worst nightmare. In most cases, the driver had no idea that a child was nearby, let alone behind the car. Yet the child's injuries can be permanent. What keeps going through my mind is, 'This did not have to happen.’”

John Sherck, trauma director at Santa Clara Valley Medical Center, which is the level 1 trauma center in San Jose, represents the seven trauma centers working together to gather information on backover incidents. So far, they have collected and assessed data on 92 injured children.



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Emily Andrada, UC Davis pediatric emergency medicine physician

"We have learned that most of the children are toddlers between 1 and 3 years old, though some are older. We have learned that most backovers occur when a child runs out to say 'good-bye,' but the driver does not see the child. We know that six of the 92 children brought to trauma centers died. We know that, in most cases, the children are injured by a family member or close friend of the family," Sherck said, adding that, until the collaborative study was launched, data on backovers was incomplete since they tend to occur on private property.

"We know these injuries happen too often but do not really know exactly how often or the full details. More information is needed, and we will continue this study and hope that collection of data on these tragic injuries will become standard. Our understanding of the issues will help us design effective prevention efforts that reduce injuries and deaths," he said.

Because of her experiences treating children with backover injuries, UC Davis Children's Hospital pediatric emergency medicine physician [Emily Andrada](#) brings an up-close perspective to the statistics. She recalls her recent interactions with the father of a child who accidentally ran over his daughter.

"He ached to take it all back and undo all he had done. He was a devastated and broken man, racked with guilt and self blame," she said. "Unfortunately, this father's experiences are not unique. Because of him and other parents dealing with similar situations, I am happy to support the efforts of those who are raising the profile of this important issue."

Woods in her community outreach efforts advises drivers to assume children may be nearby and offers these tips before starting up a car and putting it into reverse:

- Walk around a vehicle before getting in to make sure that children are not near
- Make sure children are supervised
- If children are playing outside, put them in the car with you until you are finished moving your vehicle
- Teach children not to play near vehicles
- Adjust the driver's seat as high as needed to clearly see through the rear window and adjust all mirrors for maximum range of visibility
- Roll windows down so you can hear children

Other national efforts focus on establishing new auto manufacturing performance standards that overcome "blind zones." Meeting these standards could involve the installation of small cameras that project the view from behind into rearview mirrors or sensor devices that provide audible alerts when obstructions are behind cars.

“Every week at least four children needlessly die in and around cars,” said Janette Fennel, president of KIDS AND CARS and a supporter of the new standards. “April was the deadliest month in over three years with 17 children dying in backover incidents. We simply cannot wait any longer while the death toll grows. We know this is a serious problem, and we have the technology to solve it.”

In addition to UC Davis Children's Hospital, Santa Clara Valley Medical Center and KIDS AND CARS, current study participants are the California Department of Health Services, Children's Hospital and Health Center of San Diego, Children's Hospital and Research Center Oakland, San Francisco Injury Center at UC San Francisco, Stanford University Medical Center and University Medical Center in Fresno. Soon to be added to the collaborative are Children's Hospital of Central California in Madera, Children's Hospital of Los Angeles and Loma Linda University Medical Center. The study is funded by California Kids' Plates.

UC Davis Children's Hospital ([www.ucdmc.ucdavis.edu/children](http://www.ucdmc.ucdavis.edu/children)) is the region's only comprehensive hospital for children. The hospital's Trauma Prevention and Outreach Program focuses on reducing visits to the hospital or doctor's office for unintentional injuries. KIDS AND CARS ([www.KidsAndCars.org](http://www.KidsAndCars.org)) is a nonprofit organization dedicated to preventing injuries and deaths to children in and around motor vehicles. Proceeds from specialized vehicle license plates purchased through California Kids' Plates ([www.kidsplates.org](http://www.kidsplates.org)) fund programs that benefit child injury prevention efforts.

Below are photographs from press conference. Click on any photograph for a larger view.



UC Davis trauma prevention specialist Roxanne Woods opens press conference.



Children, sitting behind vehicle, demonstrate depth of "blind zone."



This vehicle is equipped with rear camera and display screen on vehicle dashboard.



Roxanne Woods shows the children how a vehicle, equipped with a rear sensor, can help keep them safe.