

INJURY WATCH

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PEDESTRIAN INJURIES AND VEHICLE TYPE

Pedestrian deaths constitute the second largest category of motor vehicle deaths in the US. The present study examined how pedestrian injury is associated with vehicle type, while controlling for vehicle weight and speed. Police crash reports, trauma registry, and autopsy data in Maryland were linked for injured pedestrians. Logistic regression analyses were performed to control for vehicle weight and speed. Outcomes included pedestrian mortality, injury severity score, and injuries to specific body regions. Compared to conventional cars, pedestrians hit by sport utility vehicles and pick-up trucks were more likely to have higher injury severity scores (odds ratio=1.48; 95% confidence interval: 1.18-1.87) and to die (odds ratio=1.72; 95% confidence interval: 1.31-2.28).



These relationships diminished when vehicle weight and speed were controlled for. At lower speeds, pedestrians struck by sport utility vehicles, pick-up trucks, and vans were approximately two times as likely to have traumatic brain, thoracic, and abdominal injuries; at higher speeds, there was no such association. The overall increased danger sport utility vehicles and pick-up trucks present to pedestrians may be explained by larger vehicle masses and faster speeds. At slower speeds being hit by sport utility

vehicles, pick-up trucks, and vans resulted in specific injuries, indicating that vehicle design may contribute to different injury patterns. Complete results and methodology are available in the current issue of Accident Analysis and Prevention.

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Unless otherwise
 noted, information
 presented in Injury
 Watch is based on
 research and analysis
 conducted by National
 Study Center staff.

THE HOLIDAYS ARE HERE—DRIVE SAFELY

During 2002, the Christmas and Thanksgiving holidays ranked 1-2 in terms of numbers of crashes on Maryland roads (see chart below). The crash-fatality rate (fatalities/crashes * 1000) for these two periods, along with Independence Day, was 8.3, thirty-one percent higher than the annual rate.

2002 Holidays	Crashes	Fatalities	Crash-Fatality Rate per 1,000 Crashes	Time Period
New Year's	482	2	4.1	January 1 thru 2
Superbowl Sunday	693	3	4.3	February 2 thru 4
Memorial Day	1,159	6	5.2	May 25 thru 28
Independence Day	1,022	11	10.8	July 4 thru 7
Labor Day	1,108	3	2.7	August 31 thru Sept 3
Thanksgiving	1,299	10	7.7	November 27 thru 29
Christmas	1,522	11	7.2	December 21 thru 24
Total	7,285	46	6.3	

More Traffic Safety and Injury Facts (state and county) for calendar years 1999-2002 available on the web at <http://nsc.umaryland.edu>.

The fact books are supported in part by the Maryland Highway Safety Office.

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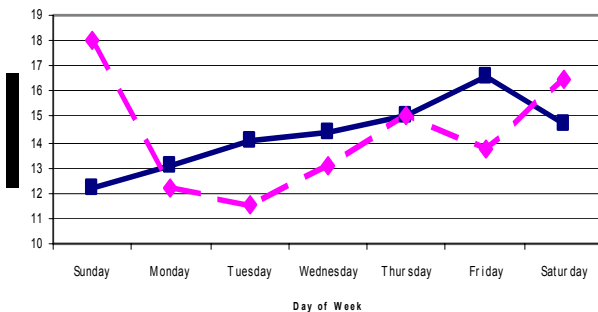
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"To prevent death and disability from injury and sudden illness through interdisciplinary research..."

DID YOU KNOW???

In 2002, fatal crashes (dashed line below) occurred most often on Sundays, even though the overall crash rate (solid line) was lowest on that day.



The Charles McC. Mathias, Jr., National Study Center for Trauma and Emergency Medical Systems (NSC) is an academic research organization dedicated to studying the causes, treatment, and outcomes of traumatic injury and sudden illness. The NSC is located on the campus of the University of Maryland, Baltimore. Since its creation in 1986, the NSC has earned an international reputation as a leader in trauma and emergency medicine research. The Center's strength resides in its teams of investigators and their expertise in study design, database linkages, interpretation of results, and application of findings. Results of NSC studies have been used to enhance patient care, to improve vehicular safety, to develop public education programs for the prevention of trauma, and to support state and federal legislation regarding injury prevention.

Discussions about Traffic Safety Research Possible in Online Community

Over 300 recent research abstracts are now posted in an "online community for traffic safety" in which participating authors receive feedback, answer questions, and participate in online discussions that stimulate future research and generate new collaborations. It is the project of Dr. Jeff Hadley of the National Study Center for Trauma and EMS and funded by the Maryland Highway Safety Office. "This virtual networking opportunity," says Dr. Hadley, "extends the benefits of an in-person conference with discussions that continue year-round and for thousands of people worldwide". Forum moderators are needed to ensure the productivity and factual accuracy of posts in each of many forums (that cover all areas of traffic safety). Dr. Hadley hopes that the resulting ease of communication between researchers and other types of traffic safety professionals can also lead to interventions and policy changes that are based on a better understanding of the scientific literature. Register for your free membership at <http://pub6.ezboard.com/btrafficsafety>. Also check out Dr. Hadley's online traffic safety study at <http://www.accident-report.org>.

OLDER DRIVERS: CRASHES, INJURIES, AND OUTCOMES

Police crash report data on all drivers involved in motor vehicle collisions in Maryland were linked with data on all acute care admissions for injury (hospital discharge records) during the same period (1994-1996). Combining the databases through probabilistic linkage techniques resulted in a population of 7,745 hospitalized drivers of automobiles, light trucks, and vans (6,681 drivers less than 65 years of age and 1,064 aged 65 or greater). Older drivers (65+) were significantly more likely to be female, injured in daytime crashes, and on weekdays as opposed to weekends and significantly less likely to have been intoxicated at the time of the collision (based on police perception). Those 65+ were significantly more likely to be involved in multi-vehicle crashes, and lateral impacts; in addition, they were significantly more likely to utilize seatbelts and have vehicles equipped with airbags. Older drivers were significantly more likely to have been at fault for their crash. With regard to injuries, older drivers had a significantly lower incidence of facial, neck, and spine injuries. They had a higher incidence of thoracic injury, and those injuries were of greater severity. Older drivers also had a lower incidence of brain and lower extremity injuries, but again, those injuries sustained were more severe than those of younger drivers. Mean ISS scores (7.4 vs. 8.6, $p < .001$), length of stay (4.1 days vs. 6.1 days, $p < .001$) and hospital costs (\$9,038 vs. \$11,317, $p < .001$) were significantly higher for the 65+ group. The mortality rate for older drivers was 5.2% vs. 1.7% for the comparison group. With the obvious differences in crash and injury characteristics between the two groups, as the number of older drivers in our society increases, prevention measures need to be targeted specifically to this group.