

For elderly, even short falls can be deadly

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While simple falls, such as slipping while walking off a curb, may seem relatively harmless, they can actually lead to severe injury and death in elderly individuals, according to a new study published in *The Journal of Trauma: Injury, Infection, and Critical Care*. As the population continues to age, it is important for physicians and caregivers to be aware of and prepared to deal with this issue, which could significantly impact the overall health and wellbeing of older adults.

In contrast to falls from greater heights, ground-level falls – essentially falls from a standing position, with feet touching the ground prior to the fall – have traditionally been considered minor injuries. But, the new study found elderly adults – 70 years or older – who experience ground-level falls are much more likely to be severely injured and less likely to survive their injuries compared to adults younger than 70 years. Elderly patients are three times as likely to die following a ground-level fall compared to their under-70 counterparts.

Trauma surgeon and researcher Julius Cheng, M.D., M.P.H, conducted the largest analysis to date of trauma patients experiencing ground-level falls. His team identified 57,302 patients with ground-level falls from 2001 through 2005 using the National Trauma Data Bank and analyzed demographics, type and severity of injuries and final outcomes.

"There is the potential to minimize what people see as a relatively trivial issue, such as slipping and falling on a wet tile floor. Our research shows that falls from low levels shouldn't be underestimated in terms of how bad they can be, especially in older patients," said Cheng, associate

professor in the Department of Surgery at the University of Rochester Medical Center and lead author of the new study.

Between 1993 and 2003, there was a 55 percent increase in the rate of fatal falls for elderly adults. Because of the increasing age in the general population, the number of elderly patients visiting the emergency department with ground-level falls is increasing, and will likely continue to rise in the future. It is now estimated that 30 percent of adults older than 65 years will experience an unintentional fall each year.

"Instead of an influx of 'traditional' knife-and-gun club victims, trauma centers of the future may need to prepare for treatment of a less dramatic but no less relevant form of injury that may very well have a substantial impact on the health and independence of our older citizens," said Thomas S. Helling, M.D., from the Department of Surgery at the University of Mississippi Medical Center who wrote an editorial accompanying the study.

The negative effect of age on health outcomes has been well established in past studies in other areas as well. Many elderly adults are frail and have pre-existing medical conditions, such as heart disease. In these types of patients, a low-level fall that results in a broken hip could have serious, far-reaching consequences. According to Cheng, "An 80 year old often can't tolerate and recover from trauma like a 20 year old."

Cheng's team found that approximately 4.5 percent of elderly patients (70 years and above) died following a ground-level fall, compared to 1.5 percent of non-elderly patients. Elderly patients remained in the hospital and the intensive care unit longer and only 22 percent were able to function on their own after they left the hospital, compared to 41 percent of non-elderly patients.

Though low-level falls can potentially lead to significant injury and

death, the reality is that almost three-quarters of patients with ground-level falls are not severely injured. Given the limited resources available to most medical centers across the United States and the increasing number of elderly patients needing treatment, Cheng's team identified two major predictors of death in patients who have experienced ground-level falls: Age older than 70 years and a Glasgow Coma Scale (a widely used indicator of brain injury) score of less than 15. These specific factors may help emergency department staff better determine which patients have a higher risk of death and are more likely to require aggressive evaluation and treatment.

While more research is needed on the management and treatment of the ever-expanding subpopulation of [elderly patients](#) in trauma centers, Cheng emphasizes the need to focus on prevention as well.

"This study brings up the important question of what we need to do as a society to help our older folks take care of themselves," said Cheng.

"Instead of just treating [falls](#) as they happen, the focus should be on what we can do to help older people avoid them in the first place. This can be as simple as making sure there is no loose carpeting in their home and putting railings on both sides of stairways and in bathtubs and showers."

Provided by University of Rochester Medical Center

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