

Men over 65 are at greater risk than women of skull fractures from falls, finds study

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Each year, more than 3 million people ages 65 and older are treated in emergency departments for fall injuries. According to the 2016 National Trauma Database annual report, females account for 58 percent of these falls. Credit: Florida Atlantic University

Each year, more than 3 million people ages 65 and older are treated in emergency departments for fall injuries. Head trauma is the leading cause of serious injury with skull fractures being reported as a serious outcome. According to the 2016 National Trauma Database annual report, females account for 58 percent of these falls.

Because geriatric females have an increased rate of falls and facial fractures, determining if they also are at an increased risk of skull fractures is crucial. Currently, research is sparse on the prevalence of skull fracture due to head injury in this population. Moreover, there is an overall lack of research concerning head injury management guidelines among the geriatric population.

Researchers from Florida Atlantic University's Schmidt College of Medicine conducted a study to assess and compare the risk of skull fracture secondary to head trauma in female and [male patients](#) ages 65 and older. They prospectively evaluated all patients with head trauma at two level-one trauma centers in southeast Florida serving a population of more than 360,000 geriatric patients.

For the study, researchers examined skull fracture due to acute trauma and compared them by sex as well as patient race/ethnicity and mechanism of injury. Among the 5,402 patients enrolled, 56 percent were female, 44 percent were male. Eighty-five percent of the head injuries sustained were due to falls, and this trend also was seen across race/ethnicity and mechanism of injury. Both females and males had a similar mean age, 82.8 and 81.1 years, respectively.

Results of the study, published in *The American Journal of Emergency Medicine*, showed that when comparing geriatric males and females, males had a significantly increased incidence of skull fracture secondary to [head trauma](#), due mostly to falls. This outcome was unexpected, as previous research has indicated females are more susceptible to facial

fractures. This trend also was seen across race/ethnicity, though results were only statistically significant for whites.

"The high incidence of head injury and subsequent skull fractures due to falls is a cause for concern as our aging population continues living active lifestyles," said Scott M. Alter, M.D., first author, associate professor of emergence medicine, and assistant dean for clinical research, FAU Schmidt College of Medicine.

"As falls caused the greatest number of head injuries and subsequent [skull fractures](#), fall prevention may be an important intervention to consider in reducing morbidity. Although fall prevention education can be addressed in the primary care setting or at assisted living facilities, the [emergency department](#) could also represent an opportunity to educate patients and to prevent future death and disability from falls in this population."

More information: Scott M. Alter et al, Comparing rates of skull fractures in female versus male geriatric patients who sustain head injuries, *The American Journal of Emergency Medicine* (2023). [DOI: 10.1016/j.ajem.2022.12.044](#)

Provided by Florida Atlantic University

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