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Sports Injuries in 65 and Older Significantly Increased Since 2012, Projected to Grow by 123% by 2040

SAN FRANCISCO (Feb. 12, 2024)—According to new data presented at the 2024 Annual Meeting of the [American Academy of Orthopaedic Surgeons](#) (AAOS), sports injuries in seniors have increased significantly from 55,684 in 2012 to 93,221 in 2021 in the United States with significant differences in the types of activities and injuries. The study, “**Orthopaedic Sports Injuries in an Aging Population: Currents Trends and Future Projections**,” also projected a 123% increase in sports-related orthopaedic injuries in those ages 65 and older from 2021 to 2040 while the number of orthopaedic surgeons is only projected to increase by 7.9% during that same timeframe.

“In practice, we are seeing adults in their eighties and nineties participating in activities that weren’t previously of interest to them, such as pickleball,” said Jay Zaifman, MD, lead author and orthopaedic surgery resident, NYU Grossman School of Medicine. “One of the top findings from our research is a clear potential for disparity between the number of orthopaedic surgeons and the increasing need for treating older adults experiencing sports injuries. There are traditionally different protocols and treatments for this age group. We now need to consider the new higher demands of many of these patients. Taking a patient-centered approach and rethinking our standard of care for more active older adults is crucial.”

Through a retrospective cross-sectional epidemiological study, the researchers looked at sports-related injuries in patients 65 years and older between 2012-2021 in the U.S. Consumer Product Safety Commission’s National Electronic Injury Surveillance System (NEISS) database. The NEISS collects data from 100 hospitals that act as a nationally representative probability sample of all U.S. hospitals with emergency rooms. Population estimates and projections were obtained from the U.S. Census Bureau, collecting projections through 2040. The Physician Compare Database was used to estimate the total number of orthopaedic surgeons in the U.S.

Highlights of the data include:

- **Sports-related injuries in elderly became more common from 2012-2021** – There were an estimated 772,973 total sports-related injuries in seniors from 2012-2021, with a mean age of 73.0 and 45% of patients being female. There was a significant increase in the national incidence of sports-related orthopaedic injuries in the elderly from 134 per 100,000 people in 2012 to 167 per 100,000 people in 2021.
- **123% increase in sports-related injuries in the elderly by 2040** – It is projected that the total number of sports-related orthopaedic injuries will reach 137,852 by 2040, an increased rate of 4.7 injuries per 100,000 people per year. This shows that older people are getting injured more frequently during sports, they are participating in more sports and/or they are participating in different sports in which they are more likely to get injured.
- **Demand for orthopaedic surgeons may outpace availability** – The number of orthopaedic surgeons increased from 21,419 in 2016 to 22,206 in 2023, a 3.7% increase. The researchers projected 23,527 orthopaedic surgeons in 2040, which represents a large disparity based on the increased demand for orthopaedic surgeons.
- **Higher participation in sports by elderly** – A significantly higher proportion of injuries was associated with biking and scooters and less were associated with dancing and skiing in those 65 and older in 2021 than in 2012. This corresponds to an increase in the popularity of certain sports like cycling and higher participation rates among older adults.

- **Elbow and upper leg injuries increasing** – In 2021, there was a higher proportion of elderly sports-related injuries presenting to the emergency room to the elbow (5.3% vs. 3.2%) and upper leg (4.2% vs. 2.1%) than in 2012.
- **Higher rates of fractures** – Fractures, hematomas and avulsions were more common injuries in emergency rooms in 2021 than 2012, while strains/sprains and lacerations were less common.

To account for the impact that the COVID-19 pandemic had on sports-related activities, 2012 was compared to 2019, which showed proportionally less skiing-related injuries and more upper leg and spine injuries than in 2012. Strains/sprains and lacerations were also less common in 2019 than in 2012.

“While we don’t have the data on this, we can extrapolate that it is very unlikely there were actually fewer sprains and strains that occurred in 2021 when compared to 2012,” said Dr. Zaifman. “The patients may be going to their primary care doctor or they’re seeing an outpatient orthopaedic surgeon for these injuries. Perhaps they are more aware that this isn’t an emergent injury, or they’re better educated on the proper location for treatment. It was emergent injuries like fractures that were presenting to the emergency room.”

For information on injury prevention and seniors exercise programs, visit [OrthoInfo.org](https://www.orthoinfo.org).

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[2024 AAOS Annual Meeting Disclosure Statement](#)

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With more than 39,000 members, the [American Academy of Orthopaedic Surgeons](#) is the world’s largest medical association of musculoskeletal specialists. The AAOS is the trusted leader in advancing musculoskeletal health. It provides the highest quality, most comprehensive education to help orthopaedic surgeons and allied health professionals at every career level to best treat patients in their daily practices. The AAOS is the source for information on bone and joint conditions, treatments and related musculoskeletal healthcare issues; and it leads the healthcare discussion on advancing quality.

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