

Health Science Approaches for Fall and Injury Prevention

Editorial

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According to the National Electronic Injury Surveillance System (NEISS) Injury Program operated by the Consumer Product Safety Commission, falls represent the number one cause of nonfatal injuries, increasing overtime from 2017-2021 (31.89%)¹. Indeed, falls and fall-related injuries appear to be a growing concern, especially for an aging population and those with disabilities (e.g., mobility deficits, visual impairments).

One challenge is that falls are multi-faceted, with the likelihood of a fall depending on various factors (e.g., visual, hearing, and muscular strength deficits) that affect balance and increase in prevalence with age. The projected number of individuals aged 40 and above with blindness or low vision will double between 2015 and 2050. Additionally, approximately 27.8% of adults 71 years and older have vision impairment, with 10% having contrast sensitivity impairment². For those 85 years and older, contrast sensitivity worsens to 22.6%, which affects one's ability to perceive sharp and clear outcomes of objects. Indeed, low vision negatively impacts one's ability to do everyday activities, and challenges in identifying key objects compound the risk of falls³⁻⁵. Unfortunately, fall risk for individuals with visual impairment is as much as two to three times more than those without visual impairment⁶, with falls resulting in injury, decreased mobility, and loss of independence⁷. Given the preventative lenses of the health science field, future research should leverage preventative approaches to reduce fall-risk and related injuries.

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