Title

90 Year Olds Are Less Likely to Fall If They Were Physically Active Two Decades Earlier: The 90+Study

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M178. 90 Year Olds Are Less Likely to Fall If They Were Physically Active Two Decades Earlier: The 90+ Study

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Objective: To determine if physical activity reported 24 years earlier is associated with the risk of falling and to examine factors related to falls in the oldest-old.

Background: The risk of falls and injuries sustained from falls increase with age. Although risk factors for falls in the elderly have been well characterized, only limited information is available about the oldest-old, people 90 years and older.

Methods: The study included 1536 participants from The 90+ Study, a longitudinal investigation of aging and dementia in the oldest-old. Participants were originally members of the Leisure World Cohort Study (LWCS), an epidemiological study of life style practices. Falls (yes/no) were reported by a participant or informant at the baseline examination of The 90+ Study. Other factors also reported at the baseline examination and known to be related to falls in younger elderly were also examined. Physical activity information was collected in the LWCS 24 years earlier (range:16-34) and was reported as 15 minutes, 30-45 minutes, or 1+ hour/day. Using logistic regression we examined the relationship between physical activity reported 24 years earlier and falls.

Results: At The 90+ baseline visit, participants were on average 94 years (range=90-107), most were women (78%), and had at least a college degree (52%). Falls were reported by 52% (N= 799) of participants and were associated with a higher number of prescription medications, history of TIA or stroke, depression, arthritis, vision disease, heart disease, presence of dementia, and use of assistive devices. After adjusting for potential confounders, and compared to people who reported no physical activity, activity of 30+ minutes/day was associated with approximately a 30% lower likelihood of falling. The falls odds ratios were 0.63 (p=0.03) for 30-45 minutes/day and 0.66 (p=0.03) for 1+ hour/day.

Conclusions: People over 90 have an especially high risk of falling for a variety of reasons such as overall deterioration of health and increased functional impairment and disabilities due to neurodegenerative diseases. Previous physical activity was related to lower risk of falling even in the presence of comorbidities or needing assistive devices. Regular physical activity may be a good strategy to reduce falls in the oldest-old and could provide an intervention to prevent falls in this rapidly growing age group.

