

Adults with cognitive impairment who use pain medication have higher falls risk

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Older adults with cognitive impairment are two to three times more likely to fall compared with those without cognitive impairment. What's more, the increasing use of pain medications for chronic pain by older adults adds to their falls risk. Risks associated with falls include minor bruising to more serious hip fractures, broken bones and even head injuries. With falls a leading cause of injury for people aged 65 and older, it is an important public health issue to study in order to allow these adults increased safety and independence as they age.

Although elevated risk of falls due to use of [pain](#) medication by [older adults](#) has been widely studied, less is known about how pain medication use affects falls risk of older adults living with cognitive impairment. In a study recently published in *Age and Ageing*, researchers at Texas A&M University examined a national sample to identify the relationship between pain medication use and falls among older adults based on their cognitive status. The team included Texas A&M Health Center for Population Health and Aging postdoctoral research associate, Aya Yoshikawa, DrPH; center co-director Matthew Lee Smith,

Ph.D., MPH; and center founding director Marcia G. Ory, Ph.D., MPH.

Using data from the National Health and Aging Trends Study (NHATS), the team analyzed associations between pain medication use and recent falls by cognitive status. The data used were self-reported measures except for cognitive test scores, which were derived from the NHATS validated algorithm based on physician diagnosis, cognitive domain (memory, orientation and executive function) test scores, and AD8 Dementia Screening Interview test scores.

Falls were identified as "yes" or "no" answers to the definition of "any fall, slip, or trip in which you lose your balance and land on the floor or ground or at a lower level" in the past month. Frequency of taking pain medication in the past month was identified as seven days a week, five to six days a week, two to four days a week, once a week or less, and never. Information about specific pain medications was not identified in this study.

Additional measures included age, race/ethnicity, education, living arrangement, balance or coordination problems, being bothered by pain, and number of chronic conditions.

The researchers found that among the 7,491 community-dwelling participants in the study, 8.3 percent had possible [dementia](#) while 8.2 percent had probable dementia.

"Although there was no significant difference in being bothered by pain by cognitive status, people living with dementia took medication for pain more frequently than those with no dementia," Yoshikawa said. "Older age, not non-Hispanic white race/ethnicity, lower levels of education, living alone, and having more chronic conditions were associated with people living with dementia versus those with no dementia. People living with dementia were more likely to report at least one fall

in the past month and worry about falling down and balance/coordination."

In addition, researchers found increased likelihood of recent falls was associated with pain medication among persons with probable dementia, and that taking pain medication two days a week or more was also associated with an increased risk of falls among those with probable dementia.

"These results support that the risk of falls associated with pain medication is elevated among those with higher levels of cognitive impairment," Yoshikawa said. "The different relationships of pain medication with falls by cognitive status can be partly explained by the severity of [cognitive impairment](#) among older adults."

Finally, the researchers note that the findings in this study have practical implications for falls prevention strategies and programs.

"To address the risk of falls associated with pain medication, especially for probable dementia, it is essential to conduct screening and [medication reconciliation](#) in the health care system. The provision of education about [pain medication](#) and alternative pain management programs is critical to preventing falls," Yoshikawa said. "There is need for fall prevention programs that encourage both exercise training for improving one's balance and reducing worry about falling down through fall management strategies."

More information: Aya Yoshikawa et al, Differential risk of falls associated with pain medication among community-dwelling older adults by cognitive status, *Age and Ageing* (2021). DOI: [10.1093/ageing/afab051](https://doi.org/10.1093/ageing/afab051)

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