

# Sedatives, mood-altering drugs related to falls among elderly

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Falls among elderly people are significantly associated with several classes of drugs, including sedatives often prescribed as sleep aids and medications used to treat mood disorders, according to a study led by a University of British Columbia expert in pharmaceutical outcomes research.

The study, published Nov. 23 in the [Archives of Internal Medicine](#), provides the latest quantitative evidence of the impact of certain classes of medication on falling among seniors. Falling and fall-related complications such as hip fractures are the fifth leading cause of death in the developed world, the study noted.

Antidepressants showed the strongest statistical association with falling, possibly because older drugs in this class have significant sedative properties. Anti-psychotics/neuroleptics often used to treat schizophrenia and other [psychoses](#) and benzodiazepines such as valium were also significantly associated with falls.

"These findings reinforce the need for judicious use of medications in elderly people at risk of falling," says principal investigator Carlo Marra, a UBC associate professor of Pharmaceutical Sciences. "Safer alternatives, such as counseling, shorter-term or less-sedating therapies, may be more appropriate for certain conditions."

The UBC study examined the effects of nine classes of drugs. It updated, expanded and analyzed 22 international observational studies from

1996-2007 investigating falls among people aged 60 years or older. The analysis included data on more than 79,000 participants and both prescription and over-the-counter medications.

Narcotics (painkillers) were found not to be statistically associated with falling among the classes studied, a finding that requires further research, says Marra, a Canada Research Chair in Pharmaceutical Outcomes in the Collaboration for Outcomes Research and Evaluation based in the Faculty of Pharmaceutical Sciences and a member of the Centre for Hip Health and Mobility, part of Vancouver Coastal Health Research Institute.

Other medication classes studied include anti-hypertensives (used to reduce blood pressure); diuretics; beta-blockers used to treat heart conditions; and non-steroidal anti-inflammatory drugs such as aspirin and ibuprofen. "Elderly people may be more sensitive to drugs' effects and less efficient at metabolizing medications, leading to adverse events, which in turn lead to falls," adds Marra, who is also a research scientist at the Centre for Health Evaluation and Outcome Sciences at Providence Health.

Prescribing medications to seniors has increased substantially over the past decade, according to the study. For example, the BC Rx Atlas, recently published by UBC researchers, shows that more than one in seven people aged 80 or older filled at least one antidepressant prescription in 2006. In addition, determining which medication classes are associated with falls remains a challenge since seniors are often on multiple medications for multiple health conditions, with new drugs entering the market on a regular basis, says Marra.

In follow-up research, he aims to explore how pharmacists can identify patients at risk of falling and educate them about medication use to ensure their safety.

Source: University of British Columbia ([news](#) : [web](#))

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