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# Falls in the Elderly:

## Drugs Associated With Increased Fall Risk

Falls among elderly people are common and are associated with increased morbidity, disability, social isolation, and a lower quality of life.<sup>1</sup> Several classes of drugs have been associated with an increased risk of falls in the elderly:

### Potential adverse effects of medications contributing to falls in the elderly<sup>2</sup>

Adverse drug effect	Medication(s)*
Agitation	Antidepressants, caffeine, neuroleptics, stimulants
Arrhythmias	Antiarrhythmics
Cognitive impairment, confusion	Benzodiazepines, narcotics, neuroleptics, any drug with anticholinergic effects
Dizziness, orthostatic hypotension	Anticonvulsants, antidepressants, antihypertensives, benzodiazepines, narcotics, neuroleptics
Gait abnormalities, extrapyramidal reactions	Antidepressants, metoclopramide, neuroleptics
Increased ambulation	Diuretics
Postural disturbances (eg, problems with balance)	Anticonvulsants, benzodiazepines, neuroleptics
Sedation, drowsiness	Anticonvulsants, antidepressants, benzodiazepines, narcotics, neuroleptics
Syncope	Beta-blockers, nitrates, vasodilators (eg, alpha <sub>1</sub> -adrenergic blockers such as doxazosin)
Visual disturbances (eg, blurred vision)	Neuroleptics, any drug with anticholinergic effects

\*Not an exhaustive list; many other agents may cause adverse effects specified.

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## Additional considerations

While the use of a particular drug or drug class may be an independent risk factor for falls, other parameters relating to drug use can increase risk even further.

- “Both dose and time since starting a medication have been reported to impact the risk of falling with different agents. The risk with benzodiazepines appears to be increased in the first 1 to 2 weeks after starting therapy, as well as when higher doses are used.”<sup>2</sup>
- The use of a greater number of prescription medications, regardless of pharmacologic classification, has also been associated with increased risk for falls:
  - “Particular attention to medication reduction should be given to older persons taking 4 or more medications and to those taking psychotropic medications.”<sup>3</sup>

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### References:

1. Lawlor DA, Patel R, Ebrahim S. Association between falls in elderly women and chronic diseases and drug use: cross sectional study. *BMJ*. 2003;327:712-717. <http://www.bmj.com/cgi/reprint/327/7417/712>. Accessed October 17, 2008.
2. Ruddock B. Medications and falls in the elderly. *Can Pharm J*. 2004;137(6):17-18. <http://www.pharmacists.ca/content/cpjpdfs/julang04/July-August-FocusonPatientcareRevised.pdf>. Accessed October 17, 2008.
3. American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention. Guideline for the prevention of falls in older persons. *J Am Geriatr Soc*. 2001;49:664-672.