

BACKGROUND INFORMATION

Medication Management to Reduce Falls

The facts

- Often, as the body ages, drug dosages need to be adjusted downward. The liver and kidneys do not break down drugs as well as when you were young, so at the same dosage of a drug, you will get higher drug levels in your bloodstream when you are older. For that reason, older adults frequently can benefit from a drug at a lower dose compared to when they were young and may be more susceptible to side effects if the drug dose is not adjusted downward.
- Psychotropic medications are used to treat psychological disorders; these include drugs prescribed for anxiety, sleeping disorders, depression, and some types of pain syndromes. Older people taking psychotropic medications have a two-fold increased risk of falls and fractures. Psychotropic drug use should be kept to a minimum. More information about falls risk with different types of psychotropic drugs follows.
- Anxiety and sleeping medications are strongly linked to falling. Their effects may differ for different people. There is some evidence that the risk of falls may be associated with dosage. This means that the higher the dosage, the higher the risk of falls.
- There is also strong evidence that antidepressants, taken by many older people, can cause falls. They can result in sedation, leading to psychomotor retardation (slower walking speed), which may be the reason they cause falls. They can also affect mental concentration. Some antidepressants can cause blood pressure to drop when you stand, which may also contribute to falls risk. Antidepressants also may be prescribed for pain, insomnia, and urinary incontinence. Evidence suggests that all types of antidepressants are associated with falls.
- Antipsychotics are drugs used for schizophrenia and sometimes severe depression or anxiety. They can result in sedation and slowing of motor function, gait disturbances, visual blurring, and a drop in blood pressure when going from sitting to standing. They also have been associated with a two-fold increased risk of falls.



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Anticonvulsants are another class of drugs that increase the risk of falls. These drugs are used for seizures and treatment of neuropathic pain (pain due to nerve fiber irritation). They increase the risk for falls by two and a half times. They can cause balance problems due to their effects on the cerebellum, a part of the brain that controls balance. They also are sedating, which may contribute to falls risk.

- In general, if a medication carries the warning “Caution with driving,” then it is reasonable to think “Caution with walking” as well, particularly for individuals who have other falls risk factors. If an older adult has risk factors for falls, or has fallen, it is important to use the lowest dose possible of any psychotropic drug. Often drug dosages can be decreased and still be effective.
- Multiple medications increase the risk of falls. This may be the result of:
 - Interactions between drugs
 - An increased chance of the person taking the medications incorrectly
 - A greater chance of taking a drug that causes a fall

We all should take as few medications as possible, and annual reviews with your physician are recommended. Being aware of potential side effects and taking reasonable care should help to reduce the risk of falls when taking multiple medications. Advise participants to seek out a pharmacist who is willing to review personal lists of medications and their side effects.

