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# ELDER CARE

## A Resource for Providers



### Falls in Elders

Rosemary Browne, MD, College of Medicine, University of Arizona

Athletes and children have the highest fall rates in our society. Falls among the elder population, however, are associated with the highest morbidity and mortality of any group. Thirty to forty per cent of elders in the community (>65yrs) fall each year. Ten to fifteen per cent of these falls result in fractures. More importantly, an even larger number of seniors develop a decline in functional status after a serious fall, which can ultimately lead to a decrease in mobility and independence. Primary care caregivers must incorporate fall risk assessment and prevention into their everyday practice.

Current geriatric guidelines recommend asking all patients >65 years about falls on an annual basis. The greatest predictor for falls is a history of a previous fall. Other risk factors include increasing age, female gender, orthostatic hypotension, cognitive impairment, alcohol use, arthritis, balance problems, muscle weakness, and certain medications. Environmental hazards about the home can increase the risk of falls as well.

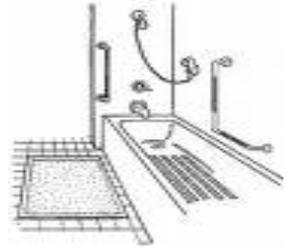
Components of the physical exam which help to evaluate fall risk include tests for gait and

balance (e.g. the simple “get up and go” test—see reverse), vision and hearing deficits, muscle weakness, and orthostasis.

Taking greater than four medications daily has also been shown to increase fall risk among elders. Major problem medications include diuretics, vasodilators, neuroleptics, narcotics and benzodiazepines. Unfortunately, the newer psychotropic agents have not shown to be superior to older medications with regard to fall risk. With careful consideration, it is often possible to simplify a patient’s medication regimen.

The most effective intervention proven to prevent falls in the older adult is long term strengthening and balance exercises, such as Tai Chi. Home safety evaluations and proper training in the use of assistive devices are also helpful measures. Treating for osteoporosis and prescribing hip protectors are ways to prevent the more serious consequences of falls, such as hip fractures. There is increasing interest in Vitamin D therapy for fall prevention as well.

Remember to ask your older patients about falls annually.



**Most falls occur in the home. Simple environmental changes can result in safer function.**



**Assistive devices, when used correctly, can help a patient maintain balance.**

#### FALL PREVENTION TIPS

- Ask about falls at annual exam
- Identify fall risks
- Perform screening evaluations, e.g., “get up and go” test
- Review medications—neuroleptics, diuretics, narcotics, benzodiazepines, vasodilators, (and don’t forget over the counter antihistamines)
- Modify risks by:
  - Balance and strengthening exercises; Consider physical therapy referral
  - Home environmental safety evaluation
  - Training in the proper use of assistive devices
  - Prescribing calcium, vitamin D and bisphosphonates when indicated



**Hip protectors (Hipsters) can protect against hip fractures, a most serious consequence of falls among elders.**

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## Home Safety Measures

Arrange furniture for safe walking pathways

### Keep loose items off the floor and stairs

Keep aware of the whereabouts of small animals and children

### Avoid long length electrical cords

Keep stairwells well lit

### Install handrails on both sides of stairs

Use a step stool with a bar handle when needed in the kitchen

### Use night lights for nighttime bathroom safety

Use non-slip rubber mats in the bathroom

### Install grab bars next to the toilet and inside the tub

Use a shower chair for safe showering

## References and Resources

1. Gillespie LD, Robertson MC, Gillespie WJ, et al. Interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub2.
2. Sherrington C, Whitney JC, Lord SR, et al. Effective exercise for the prevention of falls: a systematic review and meta-analysis. *J Am Geriatr Soc.* 2008; 56(12):2234-43.
3. Williams ME. Updated Practice Guideline for the Prevention of Falls in Older Persons From the AGS and BGS. Available at: <http://www.medscape.com/viewarticle/532942> 2006.
4. Guideline for the prevention of falls in older persons. American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons panel on falls prevention. *J Am Geriatr Soc.* 2001;49:664-672.
5. Mathias S, Nayak US, Isaacs B. Balance in elderly patients: The "get-up and go" test. *Arch Phys Med Rehabil.* 1986;67:387-389.

## How to Perform a "Get Up & Go" Test

Watch the award winning podcast on performing the Get Up & Go  
<http://www.reynolds.med.arizona.edu/EduProducts/podcasts/GetUpAndGo.cfm>

Have the patient sit upright in the exam chair. If the patient uses an assistive device, have it available to assess typical use. Then, ask the patient to:

- Get up out of the chair without using arm rests (if possible),
- Stand still for a moment,
- Walk across the room (~8 feet),
- Turn around, walk back, and sit down.

### Observe for:

- **Balance—sitting and standing**
- **Transfer stability**
- **Pace**
- **Stability of gait**
- **Ability to turn safely**
- **"Plopping" back into the chair**

Additionally, you can add time as a factor in your evaluation. In general, those patients who take longer than 8.5 seconds to perform the "get up and go" test are at higher risk for falls.

Individuals with average gait speeds of less than 1 meter/second, for whatever reason (e.g., muscle weakness, deconditioning, neurological disorders), are considered to be vulnerable and at high risk for falls.

## Pro-active Fall Prevention Measures

Remind patients to arise slowly from lying and sitting positions, especially in the morning.

Frequently review medications and alcohol use to prevent adverse events.

Ensure yearly vision checks to help improve quality of life and to prevent falls.

Utilize home health aides for home health inspections.



**Falls are the leading cause of accidental death in elders.**

Prescribe muscle strengthening and balance exercises to help prevent falls and promote overall well-being.

Suggest sturdy, flat shoes for comfort and balance.

Suggest placing emergency numbers near the phone in large print for easy access.

Prescribe appropriate assistive devices and ensure proper instruction in technique.

Check it out— fun while learning about fall prevention

[www.riskdom.com](http://www.riskdom.com)



ROSEMARY BROWNE, MD AND CAROL HOWE, MD, EDITORS  
 ARIZONA REYNOLDS PROGRAM OF APPLIED GERIATRICS  
 UNIVERSITY OF ARIZONA, PO BOX 245069, TUCSON AZ 85724 (520)626-5804  
 WWW.REYNOLDS.MED.ARIZONA.EDU  
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