



**OPTUMHealth™**  
Education

**Preventing Falls In Older Adults**  
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## Disclosures

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Dyanne Simpson, MD has no relevant financial relationships to disclose.

Barney Spivack, MD has no relevant financial relationships to disclose.

## Learning objectives

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**At the end of this activity, participants should be able to:**

- Identify risk factors that contribute to falls in older adults.
- State potential interventions that can be taken to prevent falls and their effectiveness.
- Discuss the importance of a multidisciplinary approach to prevent falls in older adults.

## Agenda

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- Introduction – Why Are Falls Important?
- Risk Factors
- Preventing Falls and Injuries
- Interventions to Reduce Fall Risk
- Special Concerns Regarding Medications
- Mental Health Focus
- Case Presentation
- Summary
- Case Management Opportunities

## Case Managers Have a Key Role in Fall Prevention

- Falls are common, serious, and growing public health problem
  - 25% of those over age 65 fall each year<sup>1</sup>
  - Often a life-changing event for the older adult
  - May start a downward spiral of increasing frailty, dependency, loss of self-worth and decrease in quality of life
    - Greater disability 6 months after hospital admit for a fall, and greater need for long term care<sup>2</sup>
  - Potential for serious injuries, decrease in mobility, loss of independence
    - Falls are the leading cause of injuries in older adults
    - Increased utilization: ER/urgent care center, inpatient stays, long term care needs<sup>1</sup>

**2015 US medical costs attributable to fatal and non-fatal falls –  
\$50 billion<sup>3</sup>**

<sup>1</sup> CDC: Important Facts about Falls, [www.cdc.gov/homeandrecreationalafety/falls/adultfalls.html](http://www.cdc.gov/homeandrecreationalafety/falls/adultfalls.html)

<sup>2</sup> AJE: Association of injurious falls with disability outcomes and nursing home admissions in community-living older persons, [www.ncbi.nlm.nih.gov/pubmed/23548756](http://www.ncbi.nlm.nih.gov/pubmed/23548756)

<sup>3</sup> AJE: Medical Costs of Fatal and Nonfatal Falls in Older Adults, [www.ncbi.nlm.nih.gov/pubmed/29512120](http://www.ncbi.nlm.nih.gov/pubmed/29512120)

## Better Screening and Assessment Is Needed

Only one out of four who fall seek medical care (2014)<sup>1</sup>

Physicians don't consider falls a high priority or usually assess falls risk<sup>2</sup>

- “Welcome to Medicare” Preventive Visit
  - Includes screening for both fall risk and home safety<sup>3</sup>
- Annual Wellness Visit (AWV)
  - Includes falls and safety screenings<sup>4</sup>
  - Fall and safety screening continues to be low<sup>5</sup>

<sup>1</sup> CDC: STEADI, Take Steps to Prevent Older Adults Falls, [www.cdc.gov/steadi/pdf/STEADI\\_ClinicianFactSheet-a.pdf](http://www.cdc.gov/steadi/pdf/STEADI_ClinicianFactSheet-a.pdf)

<sup>2</sup> UpToDate: Falls, Prevention in community-dwelling older persons, Introduction, [www.uptodate.com/contents/falls-prevention-in-community-dwelling-older-persons?search=Physician%20views%20on%20Falling&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](http://www.uptodate.com/contents/falls-prevention-in-community-dwelling-older-persons?search=Physician%20views%20on%20Falling&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1)

<sup>3</sup> Medicare Interactive: Section, Covered Services, [www.medicareinteractive.org/get-answers/medicare-covered-services/preventive-services/annual-wellness-visit](http://www.medicareinteractive.org/get-answers/medicare-covered-services/preventive-services/annual-wellness-visit)

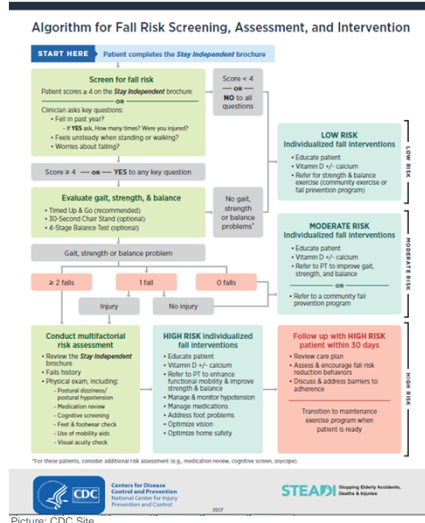
<sup>4</sup> CDC: STEADI, Materials for Healthcare Providers, Taking Steps to Prevent Older Adult Falls, pg 2, Did you Know, [www.cdc.gov/steadi/pdf/STEADI\\_ClinicianFactSheet-a.pdf](http://www.cdc.gov/steadi/pdf/STEADI_ClinicianFactSheet-a.pdf)

<sup>5</sup> UpToDate: Falls, Prevention in community-dwelling older persons, Introduction, [www.uptodate.com/contents/falls-prevention-in-community-dwelling-older-persons?search=Physician%20views%20on%20Falling&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](http://www.uptodate.com/contents/falls-prevention-in-community-dwelling-older-persons?search=Physician%20views%20on%20Falling&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1)

## CDC Fall Algorithm: Screening Questions

- Have you fallen in the past year?
- Do you feel unsteady when standing or walking?
- Do you worry about falling?

If YES TO ANY QUESTION  
 → Evaluate gait, strength, & balance



CDC: STEADI, Algorithm for fall risk, screening, assessment and intervention, [www.cdc.gov/steadi/pdf/STEADI-Algorithm-508.pdf](http://www.cdc.gov/steadi/pdf/STEADI-Algorithm-508.pdf)

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## CDC: Mobility Assessment

### Timed Up & Go (TUG)

**Purpose:** To assess mobility  
**Equipment:** A stopwatch  
**Directions:** Patients wear their regular footwear and can use a walking aid, if needed. Begin by having the patient sit back in a standard arm chair and identify a line 3 meters, or 10 feet away, on the floor.

① Instruct the patient:

- When I say "Go," I want you to:
1. Stand up from the chair.
  2. Walk to the line on the floor at your normal pace.
  3. Turn.
  4. Walk back to the chair at your normal pace.
  5. Sit down again.

**NOTE:** Always stay by the patient for safety.

- ② On the word "Go," begin timing.  
 ③ Stop timing after patient sits back down.  
 ④ Record time.

Time in Seconds: \_\_\_\_\_

An older adult who takes  $\ge 12$  seconds to complete the TUG is at risk for falling.

CDC's STEADI tools and resources can help you screen, assess, and intervene to reduce your patient's fall risk. For more information, visit [www.cdc.gov/steadi](http://www.cdc.gov/steadi)

Patient: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_ AM/PM

**OBSERVATIONS**

Observe the patient's postural stability, gait, stride length, and sway.

Check all that apply:

- Slow tentative pace
- Loss of balance
- Short strides
- Little or no arm swing
- Steadying self on walls
- Shuffling
- En bloc turning
- Not using assistive device properly

These changes may signify neurological problems that require further evaluation.

CDC: STEADI, Assessment TUG – Time Up & Go, [www.cdc.gov/steadi/pdf/STEADI-Assessment-TUG-508.pdf](http://www.cdc.gov/steadi/pdf/STEADI-Assessment-TUG-508.pdf)

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## Fall Risk Screening

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Fall risk screening is an **Important First Step**, and:

- Must be followed by thorough **assessment and,**
- **A plan that tailors interventions to address identified risk factors**

## Risk Factors

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Intrinsic risk factors that have consistently been associated with falls:

- Older age:
  - Changes in visual, proprioceptive, vestibular system, postural control, baroreceptor response and more
- Cognitive impairment
- Past history of falls
- Leg/gait problems
- Foot disorders
- Balance problems
- Low vitamin D levels
- Psychotropic meds
- Parkinson's disease, stroke, arthritis
- Visual Impairment<sup>1</sup>
- Female gender<sup>2</sup>

<sup>1</sup>UpToDate: Falls in older persons, Risk factors and patient evaluation, Section , Risk Factors, [www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation?search=Older%20Falls&source=search\\_result&selectedTitle=1-150&usage\\_type=default&display\\_rank=1](http://www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation?search=Older%20Falls&source=search_result&selectedTitle=1-150&usage_type=default&display_rank=1)

<sup>2</sup>UpToDate: Menopausal hormone therapy, Benefits and risks, Section Falls, [www.uptodate.com/contents/menopausal-hormone-therapy-benefits-and-risks?sectionName=Falls&topicRef=7395&anchor=H32&source=see\\_link#H32](http://www.uptodate.com/contents/menopausal-hormone-therapy-benefits-and-risks?sectionName=Falls&topicRef=7395&anchor=H32&source=see_link#H32)

## Rarely a Single Cause For Falls...

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- **Extrinsic factors challenging postural control**
  - Lack of stair handrails
  - Poor stair design
  - Lack of grab bars in bathroom
  - Dim lighting, glare
  - Obstacles and tripping hazards
  - Slippery/uneven surfaces
  - Psychoactive medications
  - Improper use of assistive device
  - Unfamiliar environment, changing positions, doing activities
  
- **Mediating factors**
  - Risk-taking behaviors, poor safety
  - Acute illness – e.g. risk of dehydration
  - Situational hazards

UpToDate: Falls in older persons, Risk factors and patient evaluation, [www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation?search=Older%20Falls&source=search\\_result&selectedTitle=1-150&usage\\_type=default&display\\_rank=1](http://www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation?search=Older%20Falls&source=search_result&selectedTitle=1-150&usage_type=default&display_rank=1)

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## Fear of Falling is Common

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- Concern about falling is very prevalent with older adults
  - May lead older adults to avoid activities such as walking, shopping, or taking part in social activities
  
- Older members more likely to be concerned about falling have
  - Higher body mass index (BMI)
  - Poorer functional status
  - Hypertension diagnosis

UpToDate: Falls in older persons, Risk factors and patient evaluation, Section, Fear of Falling, [www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation?search=Moller's%20research%20on%20falling&source=search\\_result&selectedTitle=2-150&usage\\_type=default&display\\_rank=2](http://www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation?search=Moller's%20research%20on%20falling&source=search_result&selectedTitle=2-150&usage_type=default&display_rank=2)

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## Preventing Falls: Mobility-Related Risk Factors – Interventions

- **Impaired gait/balance/transfers**

- Physical Therapy (PT) evaluation
- Training (PT) in use of assistive devices, if appropriate
- Gait/transfer training
- Prescribe balance/strengthening exercises
- Refer for Tai Chi®, dance, yoga – if able to tandem stand



Picture: [godlife.nia.nih.gov/exercises/balance](http://godlife.nia.nih.gov/exercises/balance)

- **Environmental hazards**

- Improve lighting, especially at night
- Remove floor hazards
- Use safer furniture (correct height, more stable)
- Install support structures, especially in bathroom (elevated toilet seats, grab bars, railings, etc.)
- Use nonslip bath mats

CDC: Take a stand on Falls, What can older adults do to prevent falls? [www.cdc.gov/features/older-adult-falls/index.html](http://www.cdc.gov/features/older-adult-falls/index.html)

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## Preventing Falls: U.S. Preventing Services



### Final Recommendation Statement

#### Falls Prevention in Community-Dwelling Older Adults: Interventions

Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

#### Recommendation Summary

Population	Recommendation	Grade (What's This?)
Adults 65 years or older	The USPSTF recommends exercise interventions to prevent falls in community-dwelling adults 65 years or older who are at increased risk for falls.	<b>B</b>
Adults 65 years or older	The USPSTF recommends that clinicians selectively offer multifactorial interventions to prevent falls to community-dwelling adults 65 years or older who are at increased risk for falls. Existing evidence indicates that the overall net benefit of routinely offering multifactorial interventions to prevent falls is small. When determining whether this service is appropriate for an individual, patients and clinicians should consider the balance of benefits and harms based on the circumstances of prior falls, presence of comorbid medical conditions, and the patient's values and preferences.  See the <a href="#">Clinical Considerations</a> section for information on risk assessment for falls.	<b>C</b>
Adults 65 years or older	The USPSTF recommends against vitamin D supplementation to prevent falls in community-dwelling adults 65 years or older.	<b>D</b>

These recommendations apply to community-dwelling adults not known to have osteoporosis or vitamin D deficiency.

U.S. Preventing Services: [www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/falls-prevention-in-older-adults-interventions1](http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/falls-prevention-in-older-adults-interventions1)

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## Preventing Falls: Mobility-Related Risk Factors – Interventions

- **Impaired leg/arm strength or range of motion, or proprioception**

- Strengthening exercises (resistive rubber bands, putty, etc.)
- Resistance training 2-3x/week, with increasing resistance<sup>1</sup>
- Tai Chi
  - “Moving meditation”: Improves balance by moving slowly, gently, and precisely, while breathing deeply.
  - Other benefits include:
    - Improvements in bone and heart health
    - Easing of pain and stiffness from osteoarthritis
    - Better sleep
    - Improvements in overall wellness<sup>2</sup>



Pictures: CDC Go4Life, [godlife.nia.nih.gov](http://godlife.nia.nih.gov)



<sup>1</sup> CDC: Compendium of Effective Fall interventions, [www.cdc.gov/homeandrecreationalafety/pdf/falls/CDC\\_Falls\\_Compndium-2015-a.pdf#nameddest=intro](http://www.cdc.gov/homeandrecreationalafety/pdf/falls/CDC_Falls_Compndium-2015-a.pdf#nameddest=intro)

<sup>2</sup> UpToDate: Falls: Prevention in community-dwelling older persons, Exercise, [www.uptodate.com/contents/falls-prevention-in-community-dwelling-older-persons?search= Tai%20Chi%20for%20falls&source=search\\_result&selectedTitle=1\\_150&usage-type=default&display=rank=1](http://www.uptodate.com/contents/falls-prevention-in-community-dwelling-older-persons?search= Tai%20Chi%20for%20falls&source=search_result&selectedTitle=1_150&usage-type=default&display=rank=1)

## Exercise Programs

### Community-Based Exercise Programs Designed to Prevent Falls

- Increase strength and improve balance
- SilverSneakers®, Otago Exercise Program, Tai Chi® for Better Balance, Stepping On, and Stay Active and Independent for Life
- Can be very effective at reducing falls
- Otago, Stepping On, Tai Chi® are cost effective per CDC analysis

CDC: Compendium of Effective Fall interventions, [www.cdc.gov/homeandrecreationalafety/pdf/falls/CDC\\_Falls\\_Compndium-2015-a.pdf#nameddest=intro](http://www.cdc.gov/homeandrecreationalafety/pdf/falls/CDC_Falls_Compndium-2015-a.pdf#nameddest=intro)



## Preventing Falls: Medically Related Risk Factors – Interventions

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- **Parkinsonism, osteoarthritis, depression, impaired cognition, other conditions**
  - Optimize medical therapy
  - Monitor disease progression for impact on mobility, impairments
  - Address anxiety and impulsiveness, need for assistive devices, bedside commode for frequent nighttime urination, cardiac follow-up if falls are due to syncope
  
- **Postural hypotension**
  - Review meds/consider meds to increase BP, if not contraindicated
  - Educate on activities to minimize effect (slow rising, ankle pumps, grab bars)
  - Wear pressure stockings
  - Optimize hydration
  - Liberalize salt intake if appropriate
  - Consume caffeinated coffee

CDC: STEADI, Physician Pocket Guide, [www.cdc.gov/steadi/pdf/STEADI-PocketGuide-508.pdf](http://www.cdc.gov/steadi/pdf/STEADI-PocketGuide-508.pdf)

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## Preventing Falls: Medically Related Risk Factors – Interventions

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- **Visual impairment**
  - Promote annual eye exams
    - Corrective lenses, address visual dysfunction
    - Timely cataract extraction (fall rate decreases 34% after cataract removal)
  - Caution member about wearing multifocal lenses while walking, especially on stairs

CDC: STEADI, Risk Factors for Falling, [www.cdc.gov/steadi/pdf/Risk\\_Factors\\_for\\_Falls-print.pdf](http://www.cdc.gov/steadi/pdf/Risk_Factors_for_Falls-print.pdf)

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## Use of Distance Glasses vs. Bifocal Glasses

A CDC COMPENDIUM OF EFFECTIVE FALL INTERVENTIONS: WHAT WORKS FOR COMMUNITY-DWELLING OLDER ADULTS

FIGURE C—Streetscape



Figure C. Simulated view of street scenes as viewed through single lens distance glasses and bifocal glasses. The footpath misalignment (the commonest reported environmental factor involved in outdoor falls) is clearly seen in Image A but blurred in Image B.

CDC: Compendium of Effective Fall interventions , [www.cdc.gov/homeandrecreationalafety/pdf/falls/CDC\\_Falls\\_Compndium-2015-a.pdf](http://www.cdc.gov/homeandrecreationalafety/pdf/falls/CDC_Falls_Compndium-2015-a.pdf)

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## Additional Interventions

- Identify the true nature of the what people call “dizziness”
  - Dizziness means different things to different people
  - May be associated with postural hypotension
  - Dizziness is strongly associated with increased risk of falls
  - Better control of BP may be needed
- Manage foot problems/footwear
  - Higher heels, decreased contact surface area of footwear → high risk of falls
  - Foot/ankle exercises decrease the rate of falls
- Anti-slip shoe device for icy conditions
  - Ice-traction device
    - Gait stabilizing outdoor winter footwear may reduce rate of outdoor winter falls/injuries in older adults

CDC: STEADI, Risk Factors for Falling, [www.cdc.gov/steadi/pdf/Risk\\_Factors\\_for\\_Falls-print.pdf](http://www.cdc.gov/steadi/pdf/Risk_Factors_for_Falls-print.pdf)

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## Medication Use and Fall Risk

- Psychotropic meds – benzodiazepine, other sedatives, antidepressants, antipsychotics
  - No difference in risk of falling with the use of newer vs. older antidepressants/antipsychotics
  - Non-benzodiazepine hypnotics (“Z-drugs”) are not protective
  - Increased risk when using > 1 psychotropic med or > 4 meds of any type

**Recent opioid use is associated with increased risk of fall<sup>1</sup>**

**Older adults are increasingly prescribed CNS-active meds:** the rate of older adults prescribed 3 or more CNS active drugs doubled over 10 years<sup>2</sup>

<sup>1</sup>CDC: STEADI, Medications Linked to Falls, [www.cdc.gov/steadi/pdf/STEADI-FactSheet-MedsLinkedtoFalls-508.pdf](http://www.cdc.gov/steadi/pdf/STEADI-FactSheet-MedsLinkedtoFalls-508.pdf)  
<sup>2</sup>JAMA: Trends in CNS-active polypharmacy among older adults seen in outpatient care in the U.S., Table 1, [jamanetwork.com/journals/jamainternalmedicine/fullarticle/2601416](http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2601416)

## Additional Medications Associated With Fall Risk

- Antihypertensive meds
- Digitalis, diuretics, antiarrhythmic agents
- NSAIDs – mechanism uncertain
- Acetylcholinesterase inhibitors – syncope risk
- Antidiabetic meds – hypoglycemia risk

BEERS 2015: Table 5, [onlinelibrary.wiley.com/doi/pdf/10.1111/jgs.13702](http://onlinelibrary.wiley.com/doi/pdf/10.1111/jgs.13702)

## Medication Use and Fall Risk

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### Target periods of especially increased vulnerability to falls

- During periods of illness
- Following hospital discharge or transitions in care
- Days-weeks after a new start of a medication
- If dose is increased of an existing medication
- After a new prescription for a hypnotic, diuretic, antihypertensive, or antipsychotic medications

STOP medications when possible

SWITCH to safer alternatives

REDUCE medications to lowest effective dose

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## Medication Use and Fall Risk – Coach Member to Review With Prescriber

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- “Is this medication really necessary?”
- “Am I taking too many meds?”
- “Can any of my meds increase my risk of falls?”
- “Should my dosage be reduced?”
- “Should my sleep problems be addressed without sleep meds?”
- “Is there anything I need to know about monitoring or side effects?”

CDC: Important Facts about Falls, Section, What You Can Do to Prevent Falls, Talk to your doctor, [www.cdc.gov/homeandrecreational/safety/falls/adultfalls.html](http://www.cdc.gov/homeandrecreational/safety/falls/adultfalls.html)

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## Mental Health – Things to Remember

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### Falls may occur for the same reasons as in members without mental illness

- **Orthostatic hypotension**
  - Occurs often with antipsychotic medications
  - Highest risk time is when medication is initially started and early titration to effective dose
- **Environmental hazards**
  - Be attentive to housing environment
    - People with severe mental illness often live in subpar housing
    - Low income apartments and boarding houses often have many flights of stairs, poor flooring, limited lighting, throw rugs, etc.
    - Increased clutter secondary to:
      - Psychotic, disorganized, thought processes
      - Hoarding behaviors
      - Low energy, low motivation to clean

## Mental Health – Things to Remember

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- **Gait problems**
  - Psychotropic medications often lead to extrapyramidal symptoms that may affect gait
  - “Shuffling gait” is common
- **Balance problems**
  - Extrapyramidal symptoms may lead to rigidity and slow reactions, with difficulty “correcting” imbalance or unsteadiness

### Mental Health – Things to Remember

- **Stay alert for signs/symptoms that may indicate underlying Substance Use Disorder, a common cause of falls, not always diagnosed!**
  - Slurred speech
  - Memory problems
  - Confusion
  - Unexplained physical injuries (i.e. bruising, fractures, etc.)
  - Vague, non-specific complaints of falls, unsteadiness, dropping things
  
- **These signs/symptoms may also indicate side effects or overuse of prescribed medications**
  - Anti-anxiety, sleep, pain meds
    - Opiates, benzodiazepines, sedating antipsychotics

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### Stages of Change Model

<u>STAGE OF CHANGE</u>	<u>MEMBER THINKING/BEHAVIOR</u>
<b>Precontemplation</b>	<b>Doesn't think about change</b> is resigned, downplays personal susceptibility
<b>Contemplation</b>	<b>Weighs benefits vs costs</b> of behavior change
<b>Preparation</b>	<b>Experiments</b> with small changes
<b>Action</b>	<b>Takes action</b> to change
<b>Maintenance</b>	<b>Maintains</b> new behavior over time

CDC: STEADI, Pocket Guide, Preventing Falls in Older Adults, [www.cdc.gov/steadi/pdf/STEADI\\_PocketGuide\\_1in4-print.pdf](http://www.cdc.gov/steadi/pdf/STEADI_PocketGuide_1in4-print.pdf)

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## Talking With Members About Falls

If you hear:	You can say:
<b>PRECONTEMPLATION STAGE</b>	
Falling is just a matter of bad luck.	As we age, falls are more likely for many reasons, including changes in our balance and how we walk.
<b>CONTEMPLATION STAGE</b>	
My friend down the street fell and ended up in a nursing home.	Preventing falls can prevent broken hips and help you stay independent.
<b>PREPARATION STAGE</b>	
I'm worried about falling. Do you think there's anything I can do to keep from falling?	Let's look at some factors that may make you likely to fall, and talk about what you could do about one or two of them.
<b>ACTION STAGE</b>	
I know a fall can be serious. What can I do to keep from falling and stay independent?	I'm going to refer you to a specialist who can help you improve your vision, balance, and optimize your medications.

CDC: STEADI, Pocket Guide, Preventing Falls in Older Adults, [www.cdc.gov/steadi/pdf/STEADI\\_PocketGuide\\_1in4-print.pdf](http://www.cdc.gov/steadi/pdf/STEADI_PocketGuide_1in4-print.pdf)

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## Take the Right Steps to Prevent Falls

### Falls and accidents don't "just happen"

- Tips for members to avoid falls:
  - Stay physically active - and keep your bones strong
  - Have your eyes and ears tested
  - Find out about the side effects of any medicine you take
  - Get enough sleep
  - Limit the amount of alcohol you drink
  - Stand up slowly
  - Use an assistive device if you need help feeling steady when you walk
  - Be careful when walking on wet or icy surfaces
  - Wear non-skid, rubber-soled, low heeled shoes, or lace-ups with non-skid soles that fully support your feet
  - Always tell your doctor if you have fallen since your last visit

NIH: Preventing Falls and Fractures, [www.nia.nih.gov/health/prevent-falls-and-fractures](http://www.nia.nih.gov/health/prevent-falls-and-fractures)

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## Coaching Members: What to Do If You Do Fall

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- Stay calm
- Decide if you are hurt BEFORE getting up
- If you think you can get up safely without help, roll over onto your side; REST AGAIN to let your body and BP adjust
- Then SLOWLY GET UP on your hands and knees, and crawl to a sturdy chair
- Put your hands on the chair seat and get into a kneeling position; SLOWLY RISE and turn your body to sit in the chair
- If you're hurt or can't get up on your own, ask for help or call 911
- Carry a mobile phone with you to make it easier to call for help or use an emergency response system

NIH: Prevent Falls and Fractures, Section, What to do If You Fall, [www.nia.nih.gov/health/prevent-falls-and-fractures](http://www.nia.nih.gov/health/prevent-falls-and-fractures)

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## Case Study – Falls

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Ms. T is a 79 year old woman in the heart failure (HF) program living alone in her apartment. You make an outreach call because there has been a change in her usual reporting using the remote monitor for HF symptoms and weights.

She tells you that she has been afraid to step onto the scale because she fell last week while going out to the store. She tripped on the sidewalk when she turned to greet someone and fell onto her side, and cracked her glasses. She needed help to get up. She has had some knee pain since and has not been able to stand very long or walk as well as before. She has been taking her usual medications which include an ACEI and a diuretic, and "something the doctor gave me last time to help me sleep". She has not been out of her apartment much since she fell and says "I'm a little unsure about myself". She says she didn't call her doctor because she didn't think he could do anything for her, and says "I guess it's just my age."

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### Case Study – Question #1

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What risk factors for falls are present based on the reported information?

### Case Study – Answer #1

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What risk factors for falls are present based on the reported information?

- Fear of falling
- History of recent fall
- Visual dysfunction
- Likely gait and/or balance difficulty
- Use of “sleeping medication”
- Current musculoskeletal pain (knee pain)

## Case Study – Question #2

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What interventions are most likely to lead to a decrease in risk of falls in this member?

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## Case Study – Answer #2

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What interventions are most likely to lead to a decrease in risk of falls in this member?

- Muscle strengthening
- Flexibility exercises
- Balance training (physical therapy, proper use of assistive devices if warranted, Tai Chi®)
- Review of how to get up from the floor after a fall
- Correction of visual dysfunction/replacing glasses
- Nonpharmacological management and simple analgesics for knee pain
- Nonpharmacological management for sleep difficulty (avoidance of sedative hypnotic medications)
- Proper footwear if needed
- Motivational interviewing to move member to greater readiness to change behavior and improve self-efficacy

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### Case Study – Question #3

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What additional care coordination needs are present?

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### Case Study – Answer #3

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What additional care coordination needs are present?

- Coach member to follow up with her physician
- Promote increased engagement with community resources/ decrease any social isolation (consider social work referral)
- Review current medications and ensure member understanding of medication management
- Continued adherence with treatment plan for HF and any other conditions
- Review for potentially unhealthy/at-risk alcohol use
- Consider use of a Life Alert® or similar system as member lives alone and is at risk of falling
- Possible home delivered meals temporarily due to member reported difficulty standing / walking, with likely impact on cooking, shopping, etc.

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### Case Study – Question #4

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What coaching about fall prevention should you provide to help motivate this member to change behavior and decrease her fall risk?

### Case Study – Answer #4

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What coaching about fall prevention should you provide to help motivate this member to change behavior and decrease her fall risk?

This member is in PRECONTEMPLATION stage of change. Get the member to begin thinking about change – “Falls are common but occur for a number of reasons. You don’t have to fall. There are specific things you can do to reduce your chance of falling again.”

## Talking With Members About Falls and Fall Prevention

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**PRECONTEMPLATION:**

**GOAL:** Get member to begin thinking about change

Provide information and explain reasons for making the change

Falls just happen when you get old.	It's true that falling is very common. About a third of all seniors fall each year, but you don't have to fall. There are specific things you can do to reduce your chances of falling.
Falling is just a matter of bad luck. I just slipped. That could have happened to anybody.	As we age, falls are more likely for many reasons, including changes in our balance and how we walk.
My 92-year-old mother is the one I'm worried about, not myself.	Taking steps to prevent yourself from falling sooner rather than later can help you stay independent.
It was an accident. It won't happen again because I'm being more careful.	Being careful is always a good idea, but it's usually not enough to keep you from falling. There are many things you can do to reduce your risk of falling.

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## Summary

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1. **Be proactive** – ask all older adults about falls
2. **Identify modifiable fall risk factors:**
  - Poor balance/vestibular disorder
  - Vitamin D deficiency
  - Medications linked to fall risk
  - Postural hypotension
  - Vision impairment
  - Foot / ankle disorder
  - Home hazards
3. **Intervene using effective strategies:**
  - Exercise, strength and balance program
  - Vitamin D supplementation (for bone, muscle, and nerve health)
  - Medication management, especially for psychoactive meds
  - Corrective eyewear, cataract surgery
  - Home modification

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Thank You.

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Questions? Contact OptumHealth Education at [moreinfo@optumhealtheducation.com](mailto:moreinfo@optumhealtheducation.com)

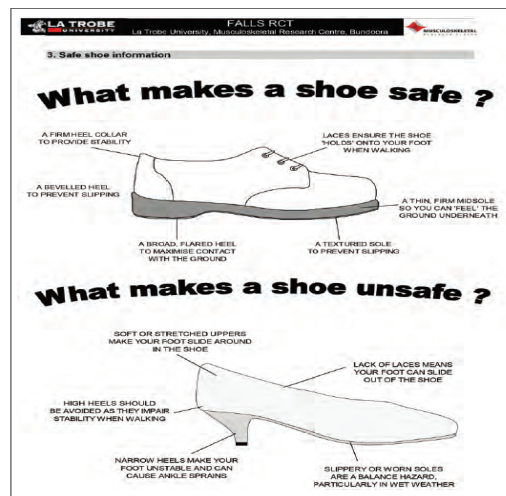


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Education

Appendix

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## Safe Footwear



CDC: Compendium of Effective Fall interventions : [www.cdc.gov/homeandrecreationsafety/pdf/falls/CDC\\_Falls\\_Compndium-2015-a.pdf](http://www.cdc.gov/homeandrecreationsafety/pdf/falls/CDC_Falls_Compndium-2015-a.pdf)

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## Videogame Based Exercises – Are They Beneficial?

- **Nintendo® Wii™ training may decrease fear of falling and improve measures of balance and mobility in community-dwelling older adults**

Randomized controlled trial, N=58, mean age 75y/o

- 2x/week Wii™ biofeedback training vs. insoles x 10 weeks
- Results:
  - Improved Timed Up & Go performance
  - Decreased fear of falling
  - Increased leg strength, endurance
  - No adverse effects
  - “Fun” factor


Journal Gerontol: Efficacy of Nintendo Wii training on mechanical leg muscle function and postural balance in community-dwelling older adults: a randomized controlled trial, [www.ncbi.nlm.nih.gov/pubmed/23114461](http://www.ncbi.nlm.nih.gov/pubmed/23114461)

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## The Need to Prevent Falls in Older Adults

### OLDER ADULT FALLS A Common Concern


**IN 2014:**




**1 in 4** older adults reported a fall.



**More than 7 MILLION** of those falls required medical treatment or restricted activity for at least a day.




**More than 27,000** older adults died as a result of falls — that's 74 older adults every day.



Stopping Elderly  
Accidents, Deaths & Injuries

[www.cdc.gov/steady](http://www.cdc.gov/steady)



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