

# Fall Risk Assessment and Prevention

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University of Illinois at Chicago



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# Purpose

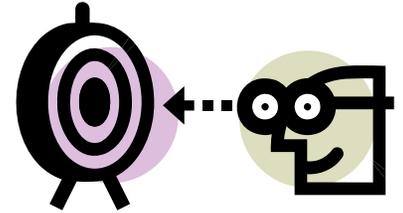
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- Outline risk factors for falls
- Identify factors that place participants at risk for falling
- Outline ways to help prevent a participant from falling



# Objectives

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- Reader will develop and understanding of:
  - risk factors of falling.
  - areas that are important to assess to determine participant's fall risk.
  - interventions that will lessen participant's risk for falls.
- Reader will be able to apply information to case study.



# About Falls

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- Falls are not normal and should be investigated
- About one-third of adults age 65+ fall each year
- The possibility of a person falling increases with age, the number of medications, and deterioration of physical movement and balance.
- In 2004, almost 85% of deaths related to falls were in those 75 and older
- Most falls result in some type of injury; 20-30% result in moderate to severe injuries
- Falls were responsible for 16,000 deaths in 2006

cdc.gov



# Most Common Risk Factors

The more risk factors the participant has the more likely he/she is to fall. Even people with no risk factors can have a fall.

- Falls risk increases with age
- Persons with previous falls are at greater risk
- Multiple chronic conditions
- Some disabilities - leg weakness/balance problems
- Changes in thinking/problem solving – dementia, brain injury
- Trouble walking, standing, moving around
- Eye/vision impairments
- Certain medications (i.e. for sleeping, anxiety, depression, mental health, heart, diabetes)
- Rushing to the bathroom (i.e., urinary frequency)
- Bare feet/shoes with slick soles



# Causes of Falls

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- Usually a combination of risk factors:
  - Changes in ability/muscle weakness
  - Chronic disease (e.g., diabetes, Parkinson's)
  - Acute illness – (i.e. dehydration, infection)
  - Medications
  - Environmental obstacles
  - Risk-taking behaviors
  - Mobility issues - difficulty walking/moving from bed to chair or vice versa



# Participants are more likely to fall when they:

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- Are in pain
- Have a fever, illness or infection, etc.
- Have difficulty breathing (e.g., chest cold)
- Have a racing heartbeat
- Experience lightheadness or dizziness



# Reflection Question

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Thinking of some participants you have worked with in the past. Have you worked with any one who has fallen and what risk factors did they have?



# Assessment Tools

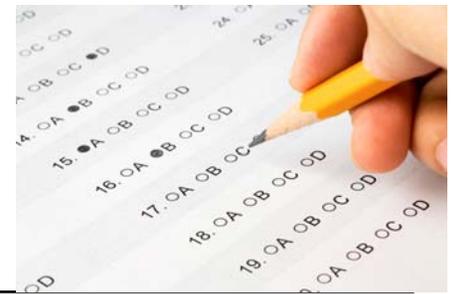
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- There are a variety of assessment tools available. Please use any tools that your agency has available for you.
- Others tools include:
  - Fall Risk Assessment
  - Home Safety Assessment
  - Geriatric Depression Scale
  - Urinary Incontinence Screen
  - Timed Get Up and Go Test
  - Pain Assessment



# Fall Assessment

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- Should occur at least annually and/or with any change in the participant's health/mobility, change in medication and emergency room or hospital visit
- Should include identification of risk factors, evaluation of environment, changes in medication and recent hospitalizations
- Information should be collected from the MDS, the MFP participant as well as his/her family, caregiver and others involved in care

# Assessment Components

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- **History** and pattern of near-falls, recent-falls, falls, and fall-related injury
- **Cognitive impairment** - capacity for safe use of ambulatory/mobility devices
- **Functional status** - muscle tone and strength, transfer ability, balance, stance, gait and ambulation/mobility
- **Sensory function** - vision, tactile, ability to sense position of limbs and joints
- **Vital signs and pain assessment**

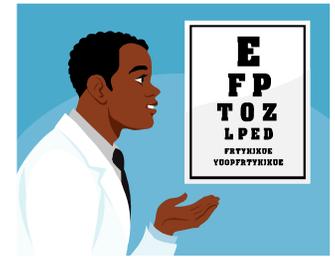
# Assessment Components

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- **Medical conditions** – pain, infection, heart disease, osteoporosis, syncope, deconditioning, neuropathy, urinary symptoms, hallucinations and delirium
- **Psychological conditions** – depression or anxiety
- **Nutritional status** and recent weight loss
- **Medication regime**, recent changes, side effects
- **Substance abuse** or withdrawal symptoms
- **Fear** related to falling

# Vision Screening



- Discuss any diagnosed conditions that can cause a decrease in ability to see (i.e., cataracts, glaucoma, macular degeneration, diabetic neuropathy)
- Discuss any decrease in vision; not being able to see far away or close up, not being able to see to the sides or up or down, not being able to tell where one item stops and another begins
- Determine most recent eye exam
- Do glasses fit correctly? Are they clean? Does the participant have an adequate prescription?
- Annual Eye exams and glasses are covered by Medicaid. [See HFS Medical and Dental Services module.](#)
- Eye exams frequency depends on the participant's condition. If glaucoma, retinopathy, etc are present they may need an exam every 3 months or more often if change or deterioration in vision is occurring.

# Medications That Increase Risk for Falls

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- Any central nervous system/psychotropic drug
  - Sedatives/hypnotics (e.g., **Zolpidem Tartrate**)
  - Antidepressants (e.g., **Fluoxetine**)
  - Antipsychotics/neuroleptic agents (e.g., **Risperidone**)
  - Benzodiazapines (e.g., **Alprazolam**)
- Cardiovascular drugs
  - Diuretics (e.g., **Furosemide**)
  - Antiarrhythmics (e.g., **Metoprolol**)
  - Cardiac glycosides (e.g., **Digoxin**)
- Antidiabetic agents (e.g., **Metformin**)



# Environmental Issues



- Is furniture arranged so there is nothing in the way that prevents the participant from moving around?
- Do all lights and nightlights work? Is a nightlight needed in hallway or bathroom? Is there a glare from bright lights?
- Is it easy to get to the bathroom? Is there leaking pipes/water on the floor?
- Are handrails and furniture sturdy and visible?
- Contrasts – Is it easy to tell where one item begins and another ends (i.e. door/wall, steps)?
- Are all medical equipment and devices in good working condition (i.e., grab bars, etc.)?
- Are there non-slip surfaces where appropriate (i.e., bathroom)? Does participant have throw rugs, slick shoes/footwear?

# Reflection Question

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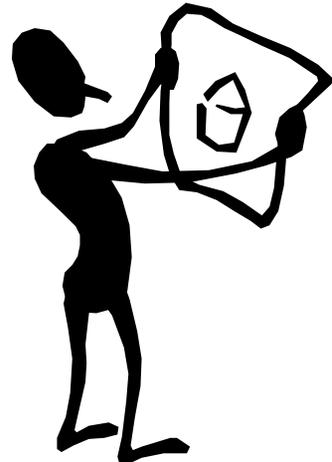
You have a participant that is due to transition to an upstairs apartment next week. What would you include in your fall risk assessment?



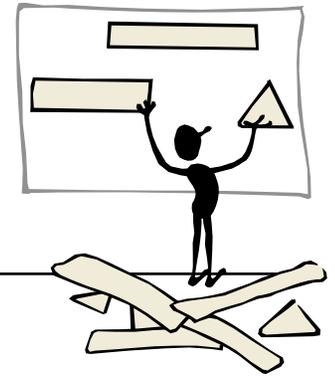
# Mitigation Strategies

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- Ways to help prevent the participant from falling:
  - Arrange for physical therapy in the home; Strength and balance training – some studies suggest exercise programs help
  - Vision assessment and referral as needed
  - Medication review, modification, and withdrawal
  - Nutrition counseling
    - Regular blood sugar testing
  - Home/caregiver support



# Mitigation Strategies



## ○ Environmental Modifications

- Have participant demonstrate proper use of equipment
- Adjust heights (i.e., bed, toilet risers)
- Ensure stability of handrails, grab bars, railings
- Create and maintain clear pathways
- Provide non-slip floor treatments especially in bathrooms and bedrooms
- Non-skid footwear
- Adequate lighting
- Tape edges for contrast (i.e., stairs, sinks, etc.)

# Follow-up and Monitoring

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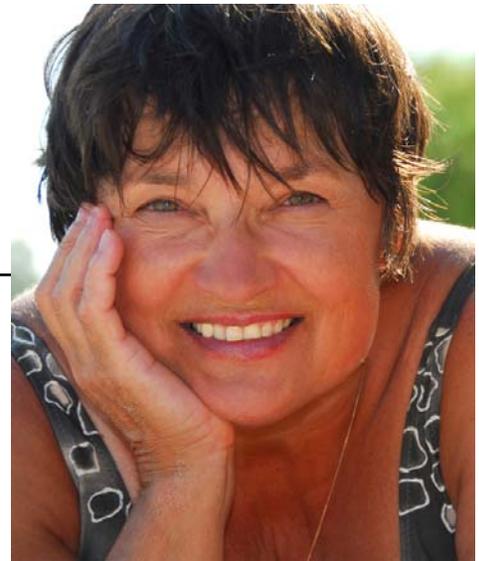


- Participants at risk for falling need to be monitored/checked on frequently
- Make it evident on participant record that participant is at risk for falls
- Make sure all caregivers/family members are aware the participant is at risk for falls
- Re-assess at least annually and/or with any change in medications, health conditions or health status
- Monitor safety of all medical equipment and devices

# Case Study

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Diane is a 54 year-old female with a history of a progressive muscular disorder. She is unable to get around by herself and uses a scooter.



Recently she has been ill with a fever, cough and just achy all over. Up until this illness she was able to transfer from bed to chair or scooter and back by herself rarely falling or missing the chair. Her current medications include a sleeping pill and an anti-anxiety agent.

# Case Study Question

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What are Diane's risk factors for falling?

- a. Muscle weakness
- b. Recent illness
- c. Medications
- d. None of the above
- e. All of the above



# What are Diane's risk factors for falling?

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The answer is "2. all of the above"

- Diane has a progressive muscular disorder, has a recent illness, and takes medication to help her sleep and for anxiety.
- Having a fever could contribute to dehydration and weakness and the achy all over could increase her weakness.

# Case Study Question

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Having a previous fall does not put Diane at increased risk for falls.

- a. True
- b. False

This is false. Having a previous fall puts a person at high-risk for another fall.

# Case Study

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What kind of environmental changes would make it easier for Diane to move around and decrease her chances for falling?

- a. Nightlights in the hallway and bathroom
- b. Placing throw rugs by the bed and chair
- c. Arranging furniture so that she has enough room to move around with her scooter.
- d. All of the above
- e. A and C



## What kind of environmental changes would make it easier for Diane to move around and decrease her chances for falling?

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- Making Diane's environment easy to navigate would be one of the best ways to decrease her falls.
- Nightlights help see better at night if she needs to get up.
- Removing throw rugs would prevent her slipping on them.
- Arranging furniture would remove obstacles from her pathway.



# Case Study

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Diane recovered from her illness with no new falls. She is still feeling a bit weak but better. She is due to for a home visit but calls you and says she feels better and you do not have to come. What do you do?

- a. Go anyway because her history of falls and recent illness puts her at increased risk for falls.
- b. Make sure her participant record says she is at risk for falls due to progressive weakness and decreased mobility
- c. Cancel your visit with her
- d. All of the above
- e. A and B



# Diane recovered from her illness with no new falls. What do you do?

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- b. Make your home visit anyway. Diane should have a new fall risk assessment completed and documentation of her status on her risk assessment and mitigation plan.



# Comprehension Questions

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1. What are two common risk factors that puts a person at high-risk for falls?
2. What are two environmental risks that puts a person at high-risk for falls?
3. Name two medication types that can contribute to a person being at risk for falling.
4. When should a person's fall risk be re-evaluated?



# 1. What are two common risk factors that puts a person at high-risk for falls?

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## ○ Common risk factors include:

- Age
- Previous falls
- Disabilities
- Conditions
- Mobility impairments
- Visual impairments
- Medications



## 2. What are two environmental risks that puts a person at high-risk for falls?

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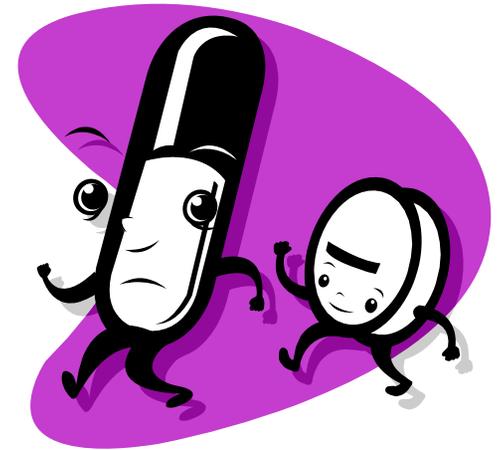
- Poor Furniture arrangement
- Inadequate lighting and lack of night lights
- Scatter or throw rugs
- Poor Access to bathroom
- Missing or defective Handrails
- Ineffective mobility devices



### 3. Name two medication types that can contribute to a person being at risk for falling.

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- Sedatives
- Antipsychotics
- Benzodiazapines
- Antidepressants
- Diuretics
- Antiarrhythmics
- Medications to treat diabetes



## 4. When should a person's fall risk be re-evaluated?

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- Annually
- With any change in status or illness
- With medication changes
- With any recent hospitalization or emergency room visit



# Questions?

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- If you have additional questions about Falls Prevention, please ask your UIC Pod Leader.



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