

**PQRI Measure 154, Falls: Risk Assessment**

Patient ID: \_\_\_\_\_ Survey Date: \_\_\_\_\_

1. Have you fallen in the last year? \_\_\_\_ Yes \_\_\_\_ No
2. Did you sustain an injury from the fall? \_\_\_\_ Yes \_\_\_\_ No
3. Have you fallen 2 or more times in the past year? \_\_\_\_ Yes \_\_\_\_ No

*If you answered NO to Question #2 and #3, you do not need to complete the remainder of the questions.*

*If you answered YES to Question #2 or #3, please complete #4 - #7.*

4. Do you have any of the following in your home? Please select all that apply:
  - \_\_\_\_ Clutter where you walk
  - \_\_\_\_ Exposed electrical cords
  - \_\_\_\_ Furniture or other sharp edged items in the normal pathways through your house
  - \_\_\_\_ Poor lighting
  - \_\_\_\_ Raised doorway thresholds
  - \_\_\_\_ Slippery floors
  - \_\_\_\_ Steps and stairways
  - \_\_\_\_ Throw rugs

5. How many medications do you currently take?
  - \_\_\_\_ None
  - \_\_\_\_ 1
  - \_\_\_\_ 2
  - \_\_\_\_ 3 or 4
  - \_\_\_\_ 5 or more

6. Were you taking any of the following medications at the time of your fall(s)? Please select all that apply.
  - \_\_\_\_ Any central nervous system / psychotropic medications
  - \_\_\_\_ Sedative / hypnotics (sleeping medications)
  - \_\_\_\_ Antidepressants (especially tricyclics)
  - \_\_\_\_ Antipsychotics / neuroleptics
  - \_\_\_\_ Benzodiazapines (“nerve pills”)
  - \_\_\_\_ Cardiovascular drugs
  - \_\_\_\_ Diuretics
  - \_\_\_\_ Antiarrhythmics
  - \_\_\_\_ Cardiac glycosides
  - \_\_\_\_ Diabetes medication

7. If you were taking any of the above at the time of your fall(s), are you still taking the medications?
  - \_\_\_\_ Yes
  - \_\_\_\_ No



# TINETTI ASSESSMENT

## BALANCE TESTS:

*Initial Instructions: Subject is seated in hard, armless chair. The following maneuvers should be tested.*

### Sitting Balance:

Leans or slides in chair = 0  
Steady, safe = 1 \_\_\_\_\_

### Arises:

Unable without help = 0  
Able, uses arms to help = 1  
Able without using arms = 2 \_\_\_\_\_

### Attempts to Arise:

Unable without help = 0  
Able, requires > 1 attempt = 1  
Able to arise, 1 attempt = 2 \_\_\_\_\_

### Immediate Standing Balance:

*(First 5 seconds)*  
Unsteady (swaggers, moves feet, trunk sway). = 0  
Steady but uses walker or other support. = 1  
Steady without walker or other support. = 2 \_\_\_\_\_

### Standing Balance:

Unsteady = 0  
Steady but wide stance (medial heels > 4 in. apart) and uses cane or other support = 1  
Narrow stance without support = 2 \_\_\_\_\_

**Nudged** \* *(Subject at maximum position with feet as close together as possible, examiner pushes lightly on subject's sternum with palm of hand 3 times)*

Begins to fall = 0  
Staggers, grabs, catches self = 1  
Steady = 2 \_\_\_\_\_

### Eyes Closed (\*same max. position)

Unsteady = 0  
Steady = 1 \_\_\_\_\_

### Turning 360 Degrees:

Discontinuous steps = 0  
Continuous = 1 \_\_\_\_\_  
Unsteady (grabs, staggers) = 0  
Steady = 1 \_\_\_\_\_

### Sitting Down:

Unsafe (misjudged distance, falls into chair) = 0  
Uses arms or not a smooth motion = 1  
Safe, smooth motion = 2 \_\_\_\_\_

**BALANCE SCORE:** \_\_\_\_\_/16

## GAIT TESTS:

*Initial Instructions: Subject stands with examiner, walks down hallway or across room, first at "usual" pace, then back at a "rapid, but safe" pace (using usual walking aids).*

### Initiation of Gait: (Immediately after told to "go")

Any hesitancy or multiple attempts to start = 0  
No hesitancy = 1 \_\_\_\_\_

### Step Length and Height:

**Right Swing Foot**  
...doesn't pass left stance foot with step = 0  
...passes left stance foot = 1 \_\_\_\_\_  
...right foot does not clear floor completely with step = 0  
...right foot completely clears floor = 1 \_\_\_\_\_

### Left Swing Foot

...doesn't pass right stance foot with step = 0  
...passes right stance foot = 1 \_\_\_\_\_  
...left foot doesn't clear floor completely with step = 0  
...left foot completely clears floor = 1 \_\_\_\_\_

### Step Symmetry:

Right & left step length not equal (estimate) = 0  
Right & left step appear equal = 1 \_\_\_\_\_

### Step Continuity:

Stopping or discontinuity between steps = 0  
Steps appear continuous = 1 \_\_\_\_\_

**Path** *(estimated in relation to floor tiles, 12" diameter; observe excursion of one foot over about 10 ft. of course):*

Marked deviation = 0  
Mid/moderate deviation or uses walking aid = 1  
Straight without walking aid = 2 \_\_\_\_\_

### Trunk:

Marked sway or uses walking aid = 0  
No sway but flexion of knees or back or spreads arms out while walking = 1  
No sway, no flexion, no use of arms, and no use of walking aid = 2 \_\_\_\_\_

### Walking Time:

Heels apart = 0  
Heels almost touching while walking = 1 \_\_\_\_\_

**GAIT SCORE:** \_\_\_\_\_/12

**TOTAL BALANCE & GAIT SCORE:** \_\_\_\_\_/28

Scores: <19 = high risk of falling  
19-24 = Greater chance of falling; but not a high risk candidate

**PATIENT:** \_\_\_\_\_ **Therapist:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## STRATEGIES FOR OSTEOPOROSIS

Reprinted from *The Osteoporosis Report*

### FALL PREVENTION

Except for people living in perpetually sunny climates, most of us face winters of shorter days, cold temperatures, snow, and even ice. While inclement weather can be dangerous for anyone, it is a special concern for people whose bones are fragile from osteoporosis. For these people, falls increase their risk of fracturing bones in their wrists, spine, hips, or elsewhere.

In addition to fragile bones, older people, especially those in their 80's and 90's, gradually lose much of the muscle and body fat that has cushioned and protected their bones. Loss of padding in the hip area may make the hip bones more vulnerable if the person falls.

The good news is that falls can be prevented with attention to safety outdoors and in the home.

#### OUTDOOR SAFETY TIPS

- In nasty weather, use a walker or cane for added stability.
- Wear warm boots with rubber soles for added traction.
- If sidewalks look slippery, walk on the grass for better traction.
- In winter, carry a small bag of rock salt, kosher salt, or kitten litter in your pocket or car. You can then sprinkle the salt or kitty litter on sidewalks or streets that are slippery.
- Look carefully at floor surfaces in public buildings. Many floors are made of highly polished marble or tile that can be very slippery. When these surfaces are wet, they become slick and dangerous. When floors have plastic or carpet runners in place, stay on them whenever possible.

#### INDOOR SAFETY TIPS

- Keep all rooms free from clutter, especially on the floors.

- Keep floor surfaces smooth but not slippery. When entering rooms, be aware of differences in floor levels and thresholds.
- Wear supportive, low-heeled shoes even at home. Avoid walking around in socks, stockings, or scuffs.
- Check that all carpets or area rugs have skid-proof backing or are tacked to the floor, including carpeting on stairs.
- Be sure that all stairwells are well lit and that stairs have handrails on both sides. Consider placing fluorescent tape on edges of top and bottom steps.
- For optimal safety, install grab bars on bathroom walls beside tubs, showers, and toilets. If you are unstable on your feet, consider using a plastic chair with a back and non-skid leg tips in the shower.
- Use a rubber bath mat in the shower or tub.
- Keep a flashlight with fresh batteries beside your bed.
- Add ceiling fixtures to rooms lit by lamps only; or hook up a lamp that is activated to a switch near the entry point into the room. Another option is to install voice or sound activated lamps.
- Use at least 100-watt bulbs in your home.
- If you must use a stepstool, use a sturdy one with a handrail and wide steps for hard to reach areas. Or, reorganize work areas and storage to minimize the need for stooping or excessive reaching.
- Consider purchasing a portable phone that you can take with you from room to room. This provides security because not only can you answer the phone without rushing for it, but you can also call for help should an accident occur.
- Arrange with a family member or friend for daily contact. Always have at least one person who always knows where you are.
- If you live alone, you may wish to contract with a monitoring company that will respond to your call 24 hours a day.

## **PHYSICAL CHANGES**

Interestingly, most falls occur at home in the afternoon, often because people trip while walking or slip when getting up from sitting. A fall can occur because of existing illnesses, medications, or drinking alcoholic beverages that slow your reflexes and may cause symptoms of confusion, dizziness, or disorientation.

### ***Reflexes***

Reflexes are automatic responses to stimuli in the environment. Examples include quickly slamming on your car brakes when a child runs into the street, moving out of the way quickly when something falls accidentally, or bending quickly to swat a mosquito. As you age, your reaction time slows and regaining your balance following a sudden movement may be difficult. This decreased ability to control your movements can result in a fall.

To improve body control, maintain an active lifestyle. Activity maintains muscle tone and flexibility and slows bone loss. Regular weight-bearing exercises and weight training can build and tone muscles even in very old people. Keeping up the strength in your arms and legs can go a long way to improving how well you move. Talk to your doctor and/or physical therapist about activities that are safe and beneficial for you, keeping in mind your individual situation.

### ***Illnesses and Medications***

If you have an illness that affects your circulation, sensation, or mobility or take medications such as blood pressure pills, heart medicine, diuretics, sleeping pills, sedatives, antidepressants, muscle relaxers, or tranquilizers, you may have symptoms of confusion, dizziness, disorientation, and slowed reflexes. Ask your doctor if there is a relationship between the symptoms you have and the medications you are taking. Use of multiple medicines can increase your risk for falling. ***Never change or skip medications without first talking with your doctor.***

### ***Hearing***

Changes in hearing occur as we age. If you do not hear as well as you used to, or if you are always asking those around you to repeat themselves, it is time to have a hearing test. If you have hearing loss, wear a hearing aid. Sounds around us help orient us to where we are and when we are in danger.

### ***Vision***

Vision also changes with age. Cataracts or glaucoma can develop. Your eyes need longer to adjust to changes in light and glare. Changes in depth perception or peripheral vision can decrease your ability to judge the steepness of stairs or curbs or to avoid obstacles in your path. Have regular eye exams and wear prescription glasses or contact lenses.

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*The best way to prevent falls and possible fractures is to eliminate as many of the causes of falls as possible. For more information on fall prevention, contact your physical therapist or the National Osteoporosis Foundation (NOF).*