

Fall prevention

Falls rank among the top five causes of death from injuries in the United States. It is estimated that one in three adults age 65 and older fall each year. While most falls result in minimal injury, more than 20-30 percent of adults age 65 and older suffer serious injuries from falls, particularly hip fractures and head injury. Of those hospitalized for a hip fracture, 40% never return home or live independently again, and 25% will die within one year.



Preventing falls and injuries at any age is important. However, older adults often take longer to recover after an injury and are more prone to having complications. Older adults are four to five times more likely to be admitted to a nursing facility for a year or longer after a fall.

Bodily changes that increase falls

As we age, our bodies go through many changes. The following are some examples of age-related bodily changes and other factors that increase the risk for falls and injuries in older adults:

- **Skeletal** — Bones may become brittle causing them to break easily and take longer to heal.
- **Circulation** — Many older adults become dizzy when they change position from a lying to a sitting position, or sitting to standing too quickly. If they don't wait a few minutes before attempting to stand they could lose their balance and fall.
- **Vision** — Changes in a person's eyes, such as cataracts, reduce a person's vision making it difficult for people to see or read their environment clearly.



- **Muscular** — Loss of muscle mass and muscle weakness. Older adults may not be able stand or walk without losing their balance. Muscle weakness may also lead older adults to eliminate physical activity and exercise from their daily routine with the results of further muscle weakness.
- **Nerves** — Loss of sensation and feeling in the feet due to nerve damage and poor circulation. When walking, older adults may not be able to feel the differences in terrain and trip when walking on uneven or rough surfaces.
- **Cognition** — Dementia and poor judgment may make older adults less aware of safety concerns. They may fail to ask for assistance when walking or forget to use a walker or cane. They may also be inattentive to dangers in their surroundings, such as litter on the floor or a pet lying in a pathway.

Fall risk identification

Most falls are preventable; a care provider's main job is to promote safety. The best way to promote fall prevention is to follow two easy steps: 1) identify the people who are at risk for falls; and 2) identify any environmental risk factors that might increase the person's chances of falling.

1. Step One: Identifying a Person's Risk for Falling

As a care provider you should be looking to see if anyone in your care has any health/medical condition(s) that might put them at a high risk for falling. These condition(s) include cardiovascular diseases causing low blood pressure, dizziness or lightheadedness; neurological or cognitive disorders such as Parkinson's disease, stroke, or any disorder that affects the person's gait. Also be sure to identify if the person has any musculoskeletal disorders such as muscle weakness or arthritis. It is also important to know a person's history to determine if the person has had previous falls.

If you are unsure of a person's fall history, or you want to establish a "baseline" for someone, you can do a simple test called the "**Timed Get Up and Go**" test. This test provides useful information to help you determine whether or not a person is at risk for falling. For this test you are going to ask the person to stand up from a standard chair and walk a distance of approximately 10 feet, turn around and walk back to the chair and sit down again. The normal time required to finish the test is somewhere between 7-10 seconds. People, who cannot complete the task in that time probably have some mobility problems, especially if they take more than 20

seconds. This information should be documented as a baseline and repeated if any changes in mobility occur, or else conduct the test on at least a yearly basis. Please see the attachment for specific instructions on administering the “**Timed Get Up and Go**” test.

2. Step Two: Identifying Environmental Risks

As a care provider you should perform a safety inspection to determine if any hazards exist in the current living environment. Examples of what a safety check might include:

- Is lighting adequate? Is there a light switch within easy reach of the bed? Is there a working flashlight in case of power failure? Examine the home to determine if the stairways are well lit, that nightlights are used, that lights can be turned on before going into a dark room, and that outside lighting is available and adequate.
- Look for cords lying in walking paths and raised doorsills. Does the family pet frequently sleep in walking paths? Check carpeting for frayed or worn areas and be sure that scatter rugs are slip-resistant.
- Evaluate stairways for handrails and be sure that steps are not used to store items. Are stair steps even, are floor coverings in good conditions, and do they have non-skid surfaces? Remember to review the basement and attic stairs if they are used on a regular basis.
- Are any of the floors wet or shiny? Examine for any clutter that may require the person to maneuver around to get to frequently used areas of the home.

Please see the “**Environmental risk factors**” section for additional information.

What to do if someone falls

If you believe the person needs emergency attention, call 911.

It is important to note that after a person falls, injuries may not be immediately obvious. Bumps, bruises and fractures may not show in some people with any obvious signs for 12-24 hours. Be aware and observant for any changes in a person’s behaviors and/or usual activities.

If someone does fall, ask the person, or staff member if appropriate, what happened. These are good sources of information. Use the acronym "**SPLATT**" to help guide your investigation to determine the cause of the fall, specific risk factors involved, and any impairment the person may have developed that could have led to the fall.

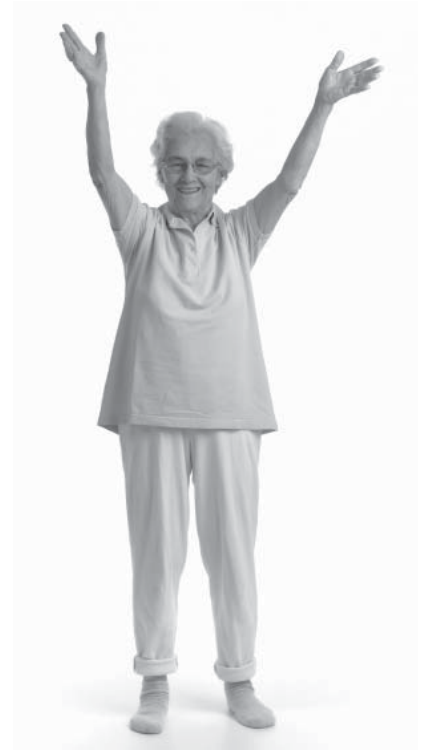
"**SPLATT**" is an acronym for:

- **Symptoms** — Did the person experience any symptoms prior to the fall such as dizziness, or lightheadedness? Determine if any of the symptoms are new to the person. This may help to determine if the person is suffering from an acute illness, such as an infection.
- **Previous** — falls or near falls. Having a previous fall or near fall can increase the risk of falling. Fear of falling is a big contributor to falls. People change their walking stride/gait in order to avoid falling. This new stride/gait is unfamiliar to them so they fall.
- **Location** — Knowing the location of the fall can help you identify any environmental factors in the home that may have contributed to the fall. Has the furniture been rearranged, was the floor wet or was the walkway cluttered?
- **Activity** — at the time of the fall. Knowing what activity the person was doing at the time of the fall could help identify potential underlying disease. For example, a fall while standing could indicate hypotension, or a fall while reaching for something may indicate a balance problem.
- **Time of fall** — Knowing the time of the fall may help to determine the cause of the fall. A fall at night might be related to poor vision, poor lighting or rushing to the bathroom. If the fall occurred after taking medication, a re-evaluation of the dosage or timing of the medication may help prevent future falls.
- **Trauma** — physical and psychological. Evaluation of any injuries or trauma that occurred as a result of the fall, such as bruises on one side of the body or the location of fractures, may help to determine the cause of the fall.

After a fall, address fears of future falling. Tendencies to decrease mobility should also be evaluated and discussed with the person. Fear of falling can lead to an increase in weakness and dependence on others to perform activities of daily living. This can create an increased risk of falling. Help the person develop a simple exercise routine to promote balance, strength and confidence.

Take the right steps

- Ask the doctor about a special test called a bone mineral density test. This test tells how strong a person's bones are.
- Regular exercise helps keep people, and their bones, strong and improves muscle tone. It also helps keep joints, tendons and ligaments flexible. Mild weight bearing exercises such as walking and climbing stairs may even slow bone loss from osteoporosis.
- Find out about the possible side effects of medications that a person takes. Some medications can affect coordination and/or balance. Ask the doctor or pharmacist what can be done to lessen these effects or if the benefit of taking the medication outweighs the person's risk of falling.
- Always have people stand up slowly after eating, lying down or resting. Getting up too quickly can cause a person's blood pressure to drop, which can make him or her feel faint.
- Make sure people wear rubber-soled, low-heeled shoes that fully support their feet. Wearing only socks or shoes with smooth soles on stairs and some types of floors can be unsafe.



The older adult, the family and caregivers must address balancing fall risk versus independence. Supporting an older adult's desire to be independent and enjoy an active lifestyle may include accepting the risks that may occur.

Additional environmental risk factors

- Flooring should be in good repair and should not have buckles, gaps or tears.
- Furniture should be in good repair and kept to a minimum, allowing the older adult to move about freely without fear of bumping into objects.
- Keep pathways free of debris and clutter.
- Use grab bars around toilets, showers and bathtubs and non-skid safety treads in showers and bathtubs. Raised toilet seats are easier to use for persons with muscle weakness and poor balance.
- Wipe up spills on floors promptly, and allow floors to dry thoroughly before using.
- Avoid throw rugs, but if they must be used make sure they have non-skid padding.
- Avoid long, loose clothing that can cause a person to trip.
- Footwear should fit well and be in good repair; keep laces tied and straps fastened.
- Place a commode at the bedside during the night to reduce trips to the bathroom.
- Use an activated room alarm or a monitor so that care providers are aware when a person needs assistance.
- Keep eyeglasses clean and in good repair,
- Teach people about:
 - » Monitoring their homes for safety hazards
 - » Postural hypotension and how they should move slowly from a reclining position to a sitting position and from a sitting position to a standing position in order to avoid dizziness and light headedness
 - » How to use assistive devices (walkers, canes, leg braces, etc.) correctly



- » The importance of keeping physically active to promote health and strength
- » Asking their physician about medication side effects that may affect their ability to walk safely
- If appropriate, encourage the use of protective hip pads, which offer extra protection for persons who are thin and frail by absorbing much of the impact of a fall and diminishing the risk of injuries.

Timed Get Up and Go Test

The “**Timed Get Up and Go**” test is a simple measure of functional mobility in people who are able to walk either on their own or with the use of a cane/walker. The participant is observed and timed while he/she rises from an armchair, walks 10 feet, turns, walks back, and sits down again. If someone is unable to ambulate by him or herself, DO NOT attempt this test. It includes a number of tasks such as standing from a sitting position, walking, turning, stopping and sitting down, which are all important tasks needed for a person to be independently mobile.

The test:

1. Start with the person seated on a hard-backed chair with arms. The person uses his/her usual footwear and any assistive walking device they normally use, such as a cane. The person is seated with his/her back to the chair, their arms resting on the arm rests and any walking aide they may be using should be in their hand.
2. Place a strip of tape on the floor 10 feet away from the person.
3. Begin timing, using either a wristwatch with a second hand or a stopwatch. When the person is ready they should stand and walk over the strip of tape, turn around, walk back and sit down again. You are timing the person from the time they leave the chair to the time they return.
4. Have the person practice the test at least one time before you begin taking time.

Scores:

- **Less than 10 seconds** — is considered normal.
- **10 to 20 seconds** — The majority of people will be independent with transfers and mobility, able to walk 50 yards, climb stairs and go out in the street alone. They may need a cane. They have good balance and gait speed.
- **20 to 29 seconds** — The “grey” zone. People will be more impaired than above.
- **Over 30 seconds** — These people often need assistance with many mobility tasks, including chair and toilet transfers, climbing stairs and going out alone.

Be aware that people who take 10 seconds or longer to complete the test run a higher risk of falling. Note whether the person has difficulty in maintaining balance upon standing, negotiating a turn or sitting down. The person's gait should also be checked for shuffling or stumbling moves that can indicate a risk for falling.

Training credit

You will need to take and pass a test to receive a certificate for training hours. Tests are open book. Tests cannot be taken with assistance. Tests results will be sent via email from spd.hsu@state.or.us.

You must score 100% to receive training credit. All tests are graded in the order received. Processing tests can take up to 8 weeks.

Ordering tests

Fill out the test order form and submit payment to SOQ-Self-study Program, PO Box 14530, Salem OR 97309. The test order form can be found here: www.tinyurl.com/DHS-AFHTraining. The test order form allows for an individual to order multiple different tests.

Tests are valid for 12 months from the date of purchase. Once a self-study test is ordered it is not transferable to another individual. **No refunds will be given.**

Questions or inquires?

Send questions or inquiries to: spd.hsu@state.or.us



You can get this document in large print, braille or a format you prefer. Contact the Safety, Oversight and Quality Unit at 1-800-282-9092.