

Each year, thousands of older adults will have a fall in their home. Falls are more common than strokes and can have just as serious consequences, according to the CDC. In fact, one in 4 adults over age 65 will experience a fall each year. Every 11 seconds, an older adult is treated in the emergency room for a fall; and every 19 minutes an older adult dies from a fall. One of the most common fall concerns is that an elderly person will break

However, walking actually is a fairly complicated process that can be impacted by a wide variety of physical and environmental factors. Walking requires balance, coordination of muscles, range of motion, vision, depth perception, strength, and an accurate brain to body connection.

According to an article in the New England Journal of Medicine (Dec 29, 1988), a fall in the non-

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their hip. In fact, 90% of hip fractures are caused by falling. Often after a hip fracture or other serious consequence of a fall, the older adult will develop a fear of falling. This fear may cause them to limit their activities which can cause a loss of muscle mass and weakness and actually increase their fall chances in the future.

As toddlers, most of us learned to walk and tend to take walking for granted.

hospitalized geriatric population is defined as "an event which results in a person coming to rest unintentionally on the ground or lower level, not as a result of a major intrinsic event (such as a stroke) or overwhelming hazard." This definition has been used for many years to develop standards of practice and monitor fall prevention strategies. However, in most home care agencies, you will need to document and record not only the falls

Fall Risk Factors

- Previous fall
- Poor mobility/gait
- Balance disorder
- Lower body weakness
- Cognitive impairment
- Polypharmacy
- Incontinence
- Pain
- Visual impairment
- Alcohol
- Orthostatic hypotension
- Hearing impairment
- Dehydration
- Neurological problems, such as stroke or Parkinson's Disease
- Musculoskeletal problems, such as arthritis, joint replacement
- Chronic diseases, such as osteoporosis, cardiovascular disease, lung disease and diabetes
- Nutritional deficits
- A low calcium and Vitamin D diet
- Drugs that cause changes in cognition or sleepiness
- Environmental issues: wet floor, cluttered floor, glare in a room, poor lighting, loose rugs or cords, low toilet seat or chair, poor fitted shoes, low tables, lack of grab bars or rails, walking on uneven surfaces, not using appropriate mobility devices, such as cane or walker.

that meet the standard definition, but also will need to document and report near misses and falls that are self-reported by the client and not observed by you. Most often, an incident report will need to be completed for all fall related events. By keeping track of falls and near falls, we can better assist the client in developing a strategy to prevent future falls and possible serious injury.

Fall Risk Factors

Falls in an older adult are almost always multifactorial, meaning there are usually several factors that are contributing to a fall or to a person's fall risk. Research has shown that observing and correcting the controllable risk factors reduces the rate of falling by more than 30% (fallprevention.org).

Unfortunately, many older adults do not receive the assistance they need to help them prevent falls because they are reluctant to report them. This may be due to concerns about possible loss of independence or the need to leave their own home to live in a safer environment. But, many falls are potentially preventable. Identifying and reducing risks for falls is an important part of care for an older adult. There are a number of documented risk factors for falls in the older adult population. Many are

preventable, and some are not. It is important to be aware of these risk factors, because the more risk factors a client has, the higher the chance a fall will happen.

A fall can be a sign of a new and serious medical problem that may need treatment. For example, an older adult can be weakened and fall because of an illness such as a serious urinary tract infection or pneumonia, or from the consequences of dehydration. Dehydration can lead to drops in blood pressure upon standing up. This drop in pressure can cause lightheadedness and dizziness and can lead to a fall.

Falls may also be associated with those who have more chronic disease processes that cause blood sugar or blood pressure instability, weakness, or pain. Disease processes such as arthritis, osteoporosis, cardiovascular disease, lung diseases and diabetes are some diseases that can contribute to a fall.

Diabetes can cause neuropathy or impairment to sensations in the nerves, particularly to the lower extremities. If a person does not have good sensation or feeling in the feet, they are more likely to have a difficult time maintaining their balance, but can also have a hard time detecting uneven surfaces when walking.

Other chronic neurological conditions such as a stroke, Parkinson's disease or MS can alter the body's normal neurological connection to enable a person to walk with a normal rhythm, speed, and balance which can contribute to a fall. Other neurological conditions, such as Alzheimer's or dementia can also cause falls.

People with dementia are at increased risk of falling compared to those without cognitive impairment. Clients with dementia and other cognitive impairments may be prone to wandering and impulsivity, which can also increase the risk of falls. Those with cognitive impairment may also fail to regularly use their walking aid and may not recognize dangerous or unsafe situations. Cognitive impairment may also cause behavioral issues, such as agitation, wandering or poor judgement which may increase the risk for falls. A person with poor judgment may not recognize the need to adjust for identifiable fall risks and may make unsafe choices while ambulating.

Chronic pain is another condition that can contribute to falls. Older adults with chronic pain may be more likely to reduce their level of activity, if that activity causes pain. This self-imposed limitation can lead to muscle weakness and falls. Also, pain medications used to treat pain that have a sedative effect

could lead to falls. Researchers have shown that the risk of falls is particularly high within the first few days of starting one of these pain medications.

Foot problems and foot pain have also been implicated as important causes of falls. Common foot problems, such as bunions, flat feet, and hammer toes, can contribute to foot pain, impair walking, and disrupt balance.

Poorly fitted shoes or slippers contribute to risks of falling. Elderly individuals are less likely to fall in their homes if they wear athletic or walking shoes. Many older adults do not wear their shoes while in their own home. In several studies, over half of falls in one's home occurred in persons who were barefoot, wearing socks without shoes, or wearing slippers.

Medications and taking many medication, or polypharmacy (taking more than 4 medications), can also cause falls. Some medications may cause dizziness or affect the central nervous system and can make a fall more likely. These medications include sedatives, opioids, antipsychotics, antidepressants, those affecting blood pressure, diabetes medications, and many common over the counter cold medications or night-time medications that end in PM.

Vision changes may also be associated with falls. Poor vision can result in misplaced footing or disorientation. Wearers of multifocal glasses are at increased risk of falls because when objects on the ground are viewed through the lower segment of multifocal glasses, vision can be blurred and depth perception can be impaired. Vision deficits, such as macular degeneration, diabetic retinopathy, and cataracts are also recognized as risk factors for falls. Regular eye exams are critical to maintain appropriate vision and assist in reducing falls. Color contrast to help identify walking areas and steps, lighted pathways and adequate indoor lighting are measures that seem to help increase fall safety.

Even a poor diet or nutrition has been associated with an increased fall risk. Poor nutrition can lead to weakness and low blood sugar. Also, vitamin D imbalance has also been associated with falls. Vitamin D not only improves calcium absorption to build the skeleton, but also binds to receptors located all over the body. Vitamin D intake has been found to be related to physical performance such as strength and balance, as well as functional capabilities.

The home environment can also trigger a fall. Environmental hazards such as poor lighting, loose carpets, and lack of bathroom safety equipment can

lead to falls. Also, it is important to have clear walkways for clients to walk within their home. Finally, poorly lit stairs or poorly placed bannisters can increase fall risk for clients. Other environmental fall risk factors to watch for include: a low toilet seat or chair, pets, a wet or slippery floor or uneven walking surfaces or thresholds.

[Assisting during and immediately following a fall](#)

All falls or even near-falls should be reported to your supervisor and an incident report should be completed. If you have a client who falls while you are walking with them, it is important to try to assist them in remaining safe while they are falling. If the client has a gait belt, use the belt to pull the client close to your body so you can help steady the client into a more controlled fall to the floor. Do not try to hold the client up, as this may cause harm to both you and the client. Protect the client's head and remain with them and call for help.

Once a client has fallen, observe them for breathing, pulse and bleeding. Get emergency help if needed, by calling 911. Observe the client for pain or other injury and contact help if there is any question that an injury may have occurred. Call your supervisor as soon as possible. If the client seems unhurt, encourage them to stay on the floor until you can contact your supervisor for

further instructions. Follow the supervisor's instructions and your agency policy for reporting and documenting the fall.

Importance of Documenting Fall Circumstances

If a client has fallen or had a near fall, it is important to report your observations to your supervisor regarding what exactly happened when the client fell or almost fell.

The following observations can be useful to assist in identifying contributing fall factors that should be reported to your supervisor:

- Were they reaching, climbing, and carrying an object?
- Were they using their mobility device?
- Did they trip on an object or pet?
- Were there external factors involved, such as wet floor, cluttered path, objects of floor, wearing slippery socks or tripping on a curb etc.
- How were they feeling right before the fall?
- Did they feel faint or dizzy?
- Were they confused or complain of weakness?
- What time of day did the fall occur?
- Did they eat a meal before the fall occurred?
- Was the person wearing eyeglasses, or hearing aid?

- What happened immediately after the fall?
- Could they get up after the fall?
- Were they aware of their surroundings

emergency response system in the event of a fall

How you can help prevent falls in your clients:

- Report all witnessed, unwitnessed, and near-falls to your office
- Report any home safety hazards you observe
- Encourage your client to appropriately use their ambulatory devices
- Encourage your clients use their glasses and hear aids when ambulating
- Wipe wet floors immediately
- Ask the client to sit on the edge of bed or couch for 30-60 seconds when moving from lying to standing
- Help the client remember to perform any exercises that have been recommended for strength, or balance
- Ask client to not rush to answer the door or phone
- Ask client not to bend at waist to pick up items
- Report if the client's gait, balance, or cognition changes
- Discuss with your supervisor if the client could benefit from an

Resources:

Tinetti ME, Speechley M, Ginter SF. Risk factors for falls among elderly persons living in the community. N Engl J Med. Dec 29 1988;319(26):1701-7.

<http://www.fallprevention.org/pages/fallfacts.htm>

CDC.<http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html>

Best Practice Intervention Tools for Fall Prevention, Home Health Quality Improvement.
www.homehealthquality.org/hh/ed_resources/interventionpackages/falls_prevention.aspx



Letter from Home for Direct Care Providers

Fall Risk Identification and Prevention

Fall Risk Quiz

Use the following case scenario to find at least five fall risks.

Mrs. S, 73, is a home care client recovering after a right sided stroke. Her left arm and leg are still very weak and her peripheral vision to the left was also affected by the stroke. Mrs. S lives with her husband, who is 81, in a one story ranch. Upon admission, a home safety checklist was completed and other than poor lighting in the home, the home environment did not pose a fall risk. All the homes area rugs were removed and there are open pathways for ambulation. Mrs. S is on medications for hypertension, osteoporosis, high cholesterol, and receives a sleeping pill at night for pain in her left shoulder that interrupts her sleep. Mrs. S walks with a walker and her balance is pretty steady most of the time, as long as she uses her walker. When Mrs. S occasionally tries to walk short distances without her walker, her gait is unsteady and she doesn't pick up her left foot, but shuffles. She does get orthostatic hypotension on occasion and feels dizzy when rising from bed sometimes.

Mrs. S receives Physical Therapy for strength training and movement on her left side. Occupational Therapy is continuing to see Mrs. S to assist in coping strategies for her poor left-sided peripheral vision and to assist in learning to do ADL's with limited use of her weak left hand and arm. Mrs. S also has a home health aide 3 times a week to assist her in her ADL's until her strength increases and she can resume this activity independently. Finally, Mrs. S is receiving 4 hours/day from a homemaker/companion to assist her in her cooking, shopping and cleaning. Based on the risk factors for falls, name at least 5 fall risks for Mrs. S that should be reported to your supervisor.

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