



Promote Mobility and Prevent Falls in Persons with Dementia Living in Nursing Homes

People with dementia have functional changes that increase the likelihood of falls. These changes are inherent to the dementia process and can happen early in the disease and progress over time. Functional changes along with action steps to support mobility and prevent falls are described below.



Visual-spatial relationships

Dementia can damage the visual system and cause people to see a distorted reality due to inaccurate or distorted information the brain has received from the eyes. For example, people can have trouble detecting movement, changes to the visual field, problems with depth perception, problems recognizing objects or colors, decreased sensitivity to differences in contrast, and problems with orientation (understanding where the body is in relation to objects in the environment). These difficulties lead to problems moving around, and make a person fearful of falling and therefore limit their movements.

Action steps to increase visibility and support mobility:

- ✓ Ensure that residents that wear glasses have the correct prescription and that their glasses are clean.
- ✓ Encourage residents to wear their glasses, and make sure the glasses being worn are for the correct distance.
- ✓ Ensure that all areas are well lit.
- ✓ Provide color-contrast on doors and windows.
- ✓ Provide non-glare flooring and contrasting colors that distinguish the floor from the walls to highlight depth.
- ✓ Ensure toilet seats, bed spreads, chairs, and shoes are contrasting colors to the floor.
- ✓ Minimize busy patterns on walls and floors as these can be interpreted as barriers and reduce mobility.
- ✓ Anticipate situations where vision problems could be limiting mobility and explain what is being encountered and slow down to offer an arm for support and encouragement.
- ✓ Close curtains or blinds at night.



Balance and gait

Dementia is associated with nerve cell death and tissue loss in the brain which leads to difficulty with activities such as walking and talking at the same time, and also increases instability, and difficulty navigating around obstacles.

Action steps to support mobility and balance:

- ✓ Promote regular physical activity and movement to maintain strength and balance which decrease the risk of falling. Make movement and mobility part of everyone's daily routine.
- ✓ Provide exercise programs that promote balance, stability and endurance: lifting weights, tai chi, chair exercises, or walking programs.

- ✓ Redefine the resident’s physical condition as it changes over time, focusing on ways the resident can move all parts of the body. Individualize exercise based on a physical therapist’s assessment.
- ✓ Establish the correct bed height for each resident by having the person sit on the bed, adjusting the bed so the knees and hips are at a 90-degree angle to allow the person to stand with more ease. Mark the height for the bed to maintain the correct bed height.
- ✓ Provide sit to stand lifts and grab bars in the bathroom to promote mobility.
- ✓ Ensure appropriate footwear is available for residents that fit without pinching, having pressure points, or being loose causing the shoe to slip on the resident’s feet.
- ✓ Ensure surfaces support all types of propulsion, walking or wheeling.
- ✓ Residents who can walk should be encouraged to walk and only use a wheelchair when absolutely needed.
- ✓ Persons in wheelchairs should be encouraged to propel themselves as much as possible.
- ✓ Ensure wheelchairs have anti-lock or self-locking brakes for residents who may forget to lock the brakes on wheelchairs.
- ✓ Allow residents to do tasks for themselves to maintain mobility, even if it takes extra time.
- ✓ Provide for good nutrition and hydration to support strength and energy.
- ✓ Encourage residents in standing activities to encourage balance as much as possible, i.e. standing during bingo, horseshoe or bean bag games, or standing in the dining room while waiting for a meal rather than sitting.



Memory/executive function

Dementia is associated with decreased ability to multi-task, plan, or organize – making multistep activities and instructions problematic. This can lead to a lack of insight and increased risk taking. Daily tasks become more difficult, and participating in activities that formerly came easily, such as remembering rules of a favorite game, become challenging.

Action steps to encourage mobility:

- ✓ Avoid using personal alarms – alarms or loud sounds from unknown sources can result in reduced movement, agitated behaviors or attempts to leave, increasing the risk of falling.
- ✓ Ensure all personal items are within easy reach. Use color contrasted tubing (such as heat shrink tubing that comes in various colors and diameters) on call lights, eyeglass bows, wheelchairs or personal items to provide contrast and allow for ease in locating.
- ✓ Develop a familiar routine for day-to-day activities.
- ✓ Provide meaningful cognitive and physical activities.



Speech, language, and communication

As dementia progresses communications skills gradually decline. Changes include problems finding words, understanding complex sentences, and describing objects rather than calling them by name. This progression



may also include speaking less often, yes/no responses being unreliable, and relying on gestures to communicate.

Action steps to encourage mobility:

- ✓ Get the person's attention before interacting. State clearly the intent of your interaction.
- ✓ Use slow deliberate movements, approaching the resident from the front and identifying yourself prior to assisting or expecting the person to move.
- ✓ Use one idea per sentence. Break down tasks using clear step-by-step instructions.

Because of these functional changes and other conditions common with aging, people with dementia may also experience:



Increased medication use

Medications used for other chronic conditions, or to control symptoms of dementia may affect balance and increase stiffness and rigidity, making it difficult to rise from a chair or walk.

Action steps to encourage mobility:

- ✓ Review medications on a regular basis to ensure medication(s) are still appropriate for the resident's current medical status.
- ✓ Understand the impact of specific medications on fall risk. Use one idea per sentence. Break down tasks using clear step-by-step instructions



Changes in sleep patterns

People with dementia often have problems such as staying asleep, being awake during the night and sleeping during the day, or other changes in their sleep schedule. These sleep disturbances result from dementia-related brain changes. These problems can make it difficult to get adequate sleep. Adequate sleep is needed to reenergize and support cognitive and physical function. Without adequate sleep, there is increased risk for falls.

Action steps to support mobility and prevent falls:

- ✓ Provide interventions to enhance the ability to sleep such as pressure redistribution mattresses, and over-night incontinence products.
- ✓ Assess environmental factors that may impact sleep, such as noise, light, and the nighttime routines of staff and other residents.
- ✓ Explore restful activities such as praying, listening to music, rocking, watching birds or fish, petting a dog or cat, sitting and holding hands, to help residents reenergize and relax.
- ✓ Assess for and treat any medical illnesses causing sleep disturbances.
- ✓ Review medications to determine if they may be a factor in getting a good night's sleep.
- ✓ Encourage the use of non-pharmacological treatment for sleep disturbances (sleep medications can increase the risk of falls).



Increased pain and discomfort due to decreased mobility and other conditions

People with dementia may experience physical pain for the same reasons as everyone else. However, because of their declining brain function, they may not be able to communicate about their pain to others, which can result in under treatment of their pain. Persistent pain can lead to decreased mobility. This can interfere with daily activities and increase the risk of falls and injury.

Action steps to support mobility:

- ✓ Regularly evaluate residents for pain or discomfort, even if they are unable to describe their pain. This is essential when a resident appears agitated or distressed.
- ✓ Treat the person's underlying pain. Provide pharmacologic pain management if needed to relieve suffering and to improve mobility and quality of life.
- ✓ Engage the resident in social activities to prevent boredom; provide activity boxes with reading materials, jewelry, fishing tackle, or headsets with soothing music to involve individuals.
- ✓ Place warm blankets on a resident who is restless or agitated to soothe and relax the resident.
- ✓ Explore other options for nonpharmacological pain management.
- ✓ Use cushioning and assistive devices.

Sources

1. Alzheimer's Association. Dementia Care Practice Recommendations for Assisted Living Residences and Nursing Homes, 2009. https://www.alz.org/national/documents/brochure_DCPPhases1n2.pdf Web 04 Jan 2016
2. Centers for Disease Control. "Physical Activity and Health." <http://www.cdc.gov/nccdphp/sgr/pdf/sgraag.pdf> Web 05 Nov 2015
3. Change Package. National Nursing Home Quality Care Collaborative. https://www.nhqualitycampaign.org/files/NH_ChangePackage_V2.0_03-26-2015_Final.pdf Web 05 Nov 2015
4. Guildermann, S. "Effective Fall Prevention Strategies without Physical Restraints or Personal Alarms." webinar for Quality Improvement Organizations and Nursing Homes delivered April 24, 2012.
5. Hunter, S. "Preventing Falls in Older Adults with Dementia While in Hospital." Minnesota Hospital Association Webinar delivered September 23, 2015.
6. Lundgren, J. "Key Points to Keep Residents Mobile." Lake Superior Quality Innovation Network webinar presented July 9, 2015.
7. Sairam, R. "Geriatric Psychiatry for Dementia" Quality Innovation Network webinar presented July 17, 2014.
8. van Doorn C, et al. Epidemiology of Dementia in Nursing Homes Research Group. "Dementia as a Risk Factor for Falls and Fall Injuries among Nursing Home Residents. J Am Geriatr Soc 2003; 51: 1213-8. <http://www.ncbi.nlm.nih.gov/pubmed/12919232> Web 04 Jan 2016
9. Willy, B, Osterberg, C. "Strategies for Reducing Falls in Long-Term Care." Annals of Long Term Care V22, Issue 1, January 2014. <http://www.annalsoflongtermcare.com/article/strategies-for-reducing-falls-long-term-care> Web 29 Oct 2015