Healthy Living

Patient Information from the American Chiropractic Association

Why Older Adults Fall

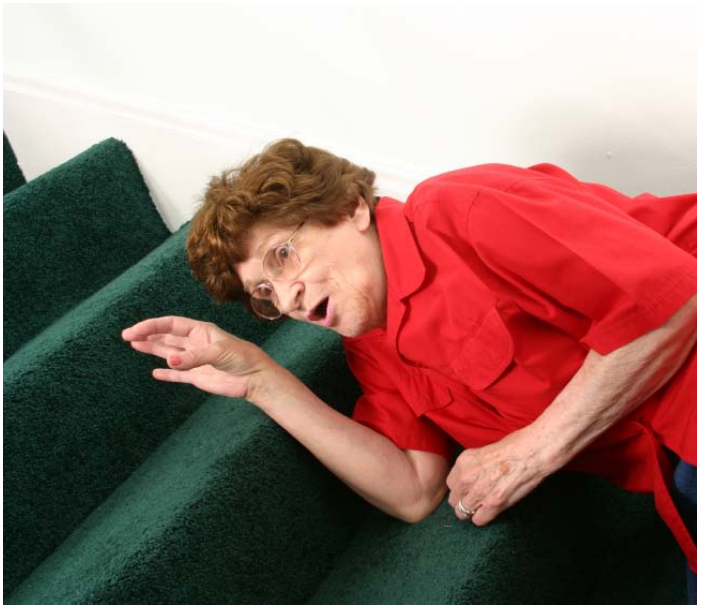
As people age, they become less aware of where their feet are. They think they know, but they are mistaken. Errors like that can lead to falls. Because we age from day to day and not overnight, we don't realize that things we ignored in our earlier years can injure or even kill us later on. A pile of magazines or newspapers left on the floor, an unsecured throw rug, lamp cords, and poor lighting on the way to the bathroom have tripped up many older adults.

In our youth, our physical responses, vision, recovery mechanisms, and inner-ear functions are so good that we expect them always to be that way. With age, however, all of these strategies become less dependable. A sedentary lifestyle increases the rate of decline. Older adults who are concerned about preventing or delaying such a decline will want to engage in a program of regular exercise tailored to the patient's needs by the doctor of chiropractic. One of the better forms of exercise for this purpose is tai chi, which consists of gentle Asian dance-like moves. Tai chi has been proven to improve balance. Walking also benefits balance and strengthens the lower body, which typically grows weaker with age.

Heart disease, lower-back pain, arthritis, or neurological problems like Parkinson's disease can all throw balance off by causing changes in the gait. Your doctor of chiropractic may want to assess your balance using any one of a number of different tests, such as the following.

Berg Balance Scale (BBS)

The BBS is a simple test that asks the patient to balance on one leg and then on the other. Your doctor of chiropractic will use a stopwatch to time how long you can hold these positions.



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Timed Get-Up-and-Go Test (TGUG)

In this test, the patient is asked to sit in a chair. At the doctor's request, you stand up, walk about ten feet, and then return to the chair. If it takes you more than about 14 seconds to complete this task, you are at risk for falls. If your doctor of chiropractic can help you learn to walk a little faster, that's not only good for fall prevention, but it means you can also get around better. People who can walk faster are able to take better care of themselves and get out into the community more. They are also more likely to be able to keep up with the grandchildren.

Balance Segment of the Performance-Oriented Mobility Assessment (B-POMA)

In the B-POMA, your gait, balance, and risk of falling under a number of conditions are examined. The doctor tests your ability to rise from a chair and recover from a small push. Some portions of this test are performed with eyes open, some with eyes closed. Lower scores on this test may indicate a greater likelihood of falls and the possibility that some form of disease is taking its toll on balance.

Limits of Stability Test (LOS)

The LOS measures the maximum distance a patient can lean in several directions without having to reach, step, or lose balance. These movements are crucial to the activities of daily living. This assessment is looking at the speed, direction, and distance that the patient's center of gravity moves to accomplish a task. If the center of gravity moves too slowly, if it is unable to move in certain directions smoothly, and if the distance that the center of gravity can move is limited, fall risk is greater. The LOS predicts not only increased fall risk but also instability during weight-lifting activities.

Modified Clinical Test for Sensory Integration Balance (MCTSIB)

All of us are moving while we stand. It's called "postural sway." When we are younger, we unconsciously correct for sway all the time through our ankles. As people age, the muscles of the lower body become weaker. Older people come to use what's called a "hip strategy," instead of the much more effective "ankle strategy" that younger adults employ. Older adults will react to a push by lunging forward or backward—often actually causing themselves to fall. Reaction times in older people become delayed, as well. When they start to slip or are pushed, they recover their balance too slowly to return their center of gravity to normal in time to avoid a fall.

The MCTSIB measures patients' postural sway under four different conditions—eyes open on a firm surface, eyes closed on a firm surface, eyes open on a foam surface, and eyes closed on a foam surface. People with more postural sway than normal are more unstable. This test can predict instability when patients must do something that requires them to hold still. It also makes predictions about stability while patients perform tasks on unstable surfaces, as well as in low light or darkness.

Falls Efficacy Scale (FES)

Patients who have already experienced one or more falls are more likely to develop a fear of falling. The FES looks at how people feel about balance and how they perceive their ability to maintain it. The answers patients give can point the doctor of chiropractic toward ways to help them overcome excessive fear—which can cause falls all by itself. This test looks at how much people believe they can avoid falls during their essential, nonhazardous activities of daily living.

Chiropractic and Balance

Proprioception, which provides 60 percent of the body's information about balance, degrades with time. (The remaining balance information comes from the eyes and the ears.) Spinal manipulation therapy, manipulation to extremities, and specific rehabilitation exercises all work to stimulate muscle spindle fibers and joint mechanoreceptors in the body, which helps keeps proprioception healthy. This type of stimulation potentially can increase your awareness of where your body is in space, which may help to keep you on your feet. ■

For more information on prevention and wellness, or to find a doctor of chiropractic near you, go to the Patient Information section on ACA's Web site at www.acatoday.org or call 800-986-4636.

ACA American Chiropractic Association

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