
DISORDERS

FALL PREVENTION

Falls are not a normal part of aging, but may be an important sign of a condition that might be cured or controlled.

ARTICLE

088

**DID THIS ARTICLE
HELP YOU?
SUPPORT VEDA @
VESTIBULAR.ORG**

5018 NE 15th Ave.
Portland, OR 97211
1-800-837-8428
info@vestibular.org
vestibular.org

Balance and Falls in the Older Adult

By Charlotte Shupert, PhD, with contributions by Fay Horak, PhD, PT and Danielle Beatty, DPT

Falls are the leading cause of injury in those 65 and older.¹ More than 14 million older adults report falling each year in the United States.² One in four adults aged 65 or older report falling each year, but less than half tell their doctor.²

The consequences of falls can be substantial. About 37% of those who fall report an injury requiring medical treatment or restricting their activity for at least one day.³ Even if a bone is not fractured during a fall, falls cause pain and injury while reducing future mobility and quality of life. The age-adjusted fall death rate increased by 21% from 64.7 per 100,000 older adults in 2018 to 78.4 per 100,000 older adults in 2024.⁴ As a result, major scientific efforts are devoted to determining the causes of falls in older adults in an attempt to reduce this significant health hazard.

CAUSES OF IMBALANCE IN OLDER PEOPLE

Balance in walking and standing is dependent on many factors. Good balance requires reliable sensory input from the visual system, vestibular system (the balance system of the inner ear), and somatosensory system (proprioceptors that sense position and movement in the legs and body). Aging adults are prone to a variety of diseases that affect these systems, including cataracts, glaucoma, diabetic retinopathy, and macular degeneration, which affect vision; peripheral neuropathy, which impairs proprioception in the feet and legs; and degeneration or disorders of the vestibular system.

Balance is also dependent on muscle strength, joint mobility, and healthy feet. A sedentary lifestyle, painful arthritis, or diseases of bones and muscles can compromise strength, mobility, and the base of foot support.

Balance control also depends on healthy function across many brain areas. The brain needs to process and interpret sensory information, select appropriate balance



strategies, and adapt and learn new strategies with practice. As we age, brain processing can slow, resulting in slower balance responses. People with cognitive problems also have balance problems, showing the importance of higher-level brain processing in balance control.

Because balance is a complex function, there is often no single identifiable cause of falls in an older person. However, aging adults with chronic dizziness or imbalance are two to three times more likely to fall in comparison with older people who do not experience these problems.⁵ Experiencing a previous fall in the last year is the highest risk

FALL RISK FACTORS	
Risk Factors for Falls	Risk*
Fell in past year	5X
Weakness	4.4
Peripheral Neuropathy	3.0
Balance	2.9
Slow Gait	2.9
Cane	2.6
Vision Problems	2.5
Arthritis	2.4
ADL Deficit	2.3
Depression	2.2
Cognitive decline	1.8
Ages >80	1.7
> 5 medications	1.7
<i>*indicates the likeliness of falling, e.g. "5 times more likely."</i>	

factor for a future fall, effectively doubling an older adult's chances of falling again.¹

DIZZINESS

Dizziness can include a sense of lightheadedness or wooziness, a spinning sensation (vertigo), motion-sickness, or unsteadiness (disequilibrium); it can have a variety of causes: vestibular (inner ear) disorders, central nervous system disorders (such as stroke), cardiovascular problems (including low or high blood pressure), low/high blood sugar, infection, hyper-ventilation associated with anxiety

attacks, medication side effects or interactions between drugs, or an inadequate or poorly balanced diet.

A thorough evaluation by a physician is usually necessary to sort out the possible causes of dizziness and arrive at a correct diagnosis. This task can be even more complicated when multiple problems are present. In such cases, the trouble in any one system may not be severe, but the combined effects may be enough to cause a serious problem with balance. For example, an older individual with age-related, mild degeneration in vestibular function may not complain of dizziness until they develop postural hypotension or light-headedness when quickly moving from sitting to standing due to a new medication, low blood pressure, or a cardiovascular problem. In fact, slow, age-related loss of vestibular function is usually not associated with dizziness, although it is associated with imbalance and falls.

Peripheral neuropathy that impairs positional sense in the feet and legs leads to more severe balance problems and falls than vestibular problems alone, although a combination of vestibular and proprioceptive deficits can have an even more profound effect on balance control.

THE AGING VESTIBULAR SYSTEM

Age-related decline in inner-ear balance function is medically known as presbyvestibulopathy. Similar to age-related hearing loss, the vestibular system experiences progressive structural and physiological breakdown starting around age 40, potentially contributing to imbalance and falls. (See VeDA's article titled Vestibular Function in the Older Adult for more information.)

FALL PREVENTION

Although the problem of imbalance in older persons can be complex, there are a few simple precautions that everyone can follow to help prevent falls and maintain an independent, active lifestyle. Balance in standing and walking is a skill that older adults can learn to maintain and/or improve, and it is dependent on good general physical condition. Therefore, sound nutrition and health habits – including regular exercise, such as walking, strength training, a stretching routine, and balance-focused exercises like Tai Chi – can go a long way toward fall prevention.⁶

In older people, a regular physical examination by





a doctor familiar with the problems of aging, such as a geriatrician, can help identify and correct potential problems before a serious fall. Having a physician and a pharmacist work to minimize the number of medications an older person is taking can help reduce potential side effects and interactions that cause dizziness and imbalance, and has been shown to reduce falls. Taking good care of the feet by wearing supportive shoes (see VeDA's article on proper footwear) and getting regular vision screens can also be beneficial. When indicated, physical therapy can be an effective intervention to improve balance and reduce dizziness.

In addition, ensuring that the older person's environment is safe (with good lighting, secure footing, clear walkways, handrails, and anti-skid devices in bathrooms, etc.) can help prevent falls and their attendant injuries. A tendency to fall and symptoms of dizziness should never be dismissed as unavoidable consequences of aging but may be important signs of a condition that might be cured or controlled.

Aging adults have a higher risk of contracting many different kinds of diseases. As a result, the average older person is more likely to have a disease that interferes with balance than a younger person. The vestibular system should be ruled out as a source of these symptoms.

The ability to move about freely is an important factor in the quality of life for both younger and older people, and a healthy balance system is vitally important to freedom of movement.

REFERENCES

1. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online].
2. Kakara R, Bergen G, Burns E, Stevens M. Nonfatal and Fatal Falls Among Adults Aged ≥ 65 Years—United States, 2020–2021. *MMWR Morbidity and Mortality Weekly Report*. 2023;72:938–943. DOI: 10.15585/mmwr.mm7235a1.
3. Moreland, B, Kakara, R, & Henry, A. Trends in Nonfatal Falls and Fall-Related Injuries Among Adults Aged ≥ 65 Years—United States, 2012–2018. *MMWR Morbidity and Mortality Weekly Report*. 2020 Jul 10;69(27):875–881. DOI: 10.15585/mmwr6927a5.
4. Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018–2024 on CDC WONDER Online Database, released in 2026. Data are from the Multiple Cause of Death Files, 2018–2024, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.
5. Alexander BH, Rivara FP, Wolf ME. The cost and frequency of hospitalization for fall-related injuries in older adults. *American Journal of Public Health* 1992;82(7):1020–3
6. Sterling DA, O'Connor JA, Bonadies J. Geriatric falls: injury severity is high and disproportionate to mechanism. *Journal of Trauma-Injury, Infection and Critical Care* 2001;50(1):116–9



©2026 Vestibular Disorders Association
VeDA's publications are protected under copyright.
For more information, see our permissions guide at vestibular.org. ***This document is not intended as a substitute for professional health care.***

[illegible]

5018 NE 15th Ave. Portland, OR 97211
1-800-837-8428 info@vestibular.org vestibular.org

You can ensure that educational articles like this continue to be available to vestibular patients like you by making a tax-deductible gift to VeDA today.

One-time gift: ☐ \$40 ☐ \$50 ☐ \$75 ☐ \$100 ☐ \$250 ☐ other

Monthly gift: ☐ \$10 ☐ \$15 ☐ \$25 ☐ \$35 ☐ \$50 ☐ other

☐ Check this box if you prefer that your donation remain anonymous.

Donations gladly accepted online at <http://vestibular.org>. Check or money order in US funds, payable to VeDA.

Visa	MC	Amex	Discover	Card number	Exp. date	CVV code
------	----	------	----------	--	--	---

Billing address of card (if different from mailing information)

Name _____ Telephone _____ Email _____
Address _____ City _____ State/Province _____ Zip _____
Country _____