

The prevalence of falls among older adults

How routine vision screening
can help minimize the risks

Prevalence of falls among seniors

Falls are the leading cause of injuries for older Americans, and many of them result in permanent disability and fatalities. In addition to threatening the health and independence of seniors, falls also generate significant economic costs.

Currently, the statistics are staggering. One in four Americans aged 65+ falls each year.¹ Every 11 seconds, an older adult is treated in the emergency room for a fall; every 19 minutes, an older adult dies from a fall. Falls are the leading cause of fatal injury and the most common cause of non-fatal, trauma-related hospital admissions among older adults. They result in more than 2.8 million injuries treated in emergency departments annually, including over 800,000 hospitalizations (most because of head injuries and hip fractures) and more than 27,000 deaths.²

Falls are the most common cause of traumatic brain injuries.³ In addition, many people who fall become afraid of falling, which causes them to become less active. This, in turn, can make them weaker and increase their chances of falling again.⁴

However, falling is not an inevitable result of aging. Through lifestyle adjustments, careful medication management and periodic health screenings, including for visual acuity, the number of falls among seniors can be reduced significantly.

Most falls are caused by a combination of risk factors. The more risk factors a person has, the greater their chances of falling.



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Common causes for falls¹⁹

Research has identified many risk factors for falls among the elderly. They include:

- Vision problems
- Lower body weakness
- Vitamin D deficiency
- Difficulties with walking and balance
- Use of medicines such as tranquilizers, sedatives, or antidepressants. Even some over-the-counter medicines can affect balance.
- Home hazards such as broken or uneven steps or throw rugs and clutter that can be tripped over
- Foot pain or poor footwear

The connection between poor vision and falls

By the age of 65, one in every three individuals has some form of vision-reducing eye disease. Vision impairment and blindness affect one in 11 Americans age 65 and older. As our population ages, the number of older adults with vision problems is predicted to rise. Having impaired vision more than doubles the risk of falls for older adults.⁵

Many different kinds of vision problems common in older adults can contribute to falls. In addition to refractive errors that cause nearsightedness, farsightedness and astigmatism, they include:⁶

Cataracts—More than 70 percent of those over age 75 are at risk of developing cataracts — a clouding of the lens in the eye. Often there are no symptoms, other than a gradual loss of vision. Cataracts are the leading form of blindness, and the number one cause of cataracts is age.

Glaucoma—The second leading cause of blindness in the U.S., this condition tends to run in families and is more common with age. It is often associated with elevations in the pressure of the eye, which damages the optic nerve that sends images to the brain. If the damage worsens, it can cause permanent vision loss and even total blindness.

Age-related macular degeneration—AMD is the third most common eye disease and affects more than 13 million people over the age of 50. It is characterized by a dark spot in the middle of the macula — a yellow-hued spot in the middle of the retina that is responsible for central vision and allows one to see fine details. This vision impairment increases the likelihood of tripping over objects on the floor, such as extension cords or a grandchild's toys.

Poor depth perception—Depth perception allows us to perceive the world in three dimensions and determine distance to an object. Walking and looking down at the same time can cause depth perception to be distorted, which can cause a person to stumble and fall. Depth perception can be impaired due to difficulty in seeing contrasts, which increases with age.

Loss of peripheral vision—Peripheral vision allows you to see objects around you without turning your head or moving your eyes. It helps you to walk up and down stairs or cross a busy street. After age 70, it can decrease by 20 percent. Loss of peripheral vision can be made worse by glaucoma, cataracts, retinal disease, and even droopy eyelids. Together with age-related balance problems, muscle weakness and poor eye-hand coordination, a loss of peripheral vision contributes to falls among the elderly.

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Slower adjustment to lighting changes—Going from bright light to dark light requires the eyes to adjust. As people age, this process takes longer. Many falls result when an elderly person trips over furniture in a darkened room.

Diabetic retinopathy—A condition caused by diabetes that weakens the blood vessels in the retina, resulting in impaired vision. Blood sugar must be controlled in order to minimize the chances of developing this eye disease. Warning signs include floaters, blurred vision and even loss of vision.

In addition, a team of researchers who published their findings in the *Journal of the American Geriatrics Society* concluded that falls, fear of falling, and limiting activity were considerably more common among older adults who were visually impaired. In their study, about 50 percent of people who said they had trouble seeing were afraid of falling and, as a result, limited their activity, which ultimately made them frailer and more apt to fall. More than one in four older adults with vision problems had recurrent falls in the year before they were surveyed.⁷

Routine eye exams identify chronic health conditions that contribute to falls

As many as 30 chronic health conditions that plague older Americans can be detected and treated early with routine eye exams²⁰—often before the patient experiences any symptoms. These include diabetes, heart disease and stroke (see sidebar on next page). Many of these conditions contribute directly or indirectly to falls by worsening eyesight and/or increasing frailty. According to Versant Health's Chief Medical Officer Mark Ruchman, MD, "When eye doctors performs an exam, they not only test visual acuity, eye movement, and side vision, but they also check eye pressure, the topography of the eye, and your retina and optic nerve. This allows them to see characteristic changes of damage to the retinal blood vessels that reflect system-wide abnormalities affecting the brain, heart, and more."⁸

Improving older adults' access to vision care is an easy and cost-effective solution to protect vision and overall health, minimize human suffering and mitigate the financial impact of falls among the elderly.

The American Optometric Association recommends annual eye examinations for every individual over the age of 60. Eyeglass prescriptions should be updated annually if needed. In addition, the Centers for Disease Control and Prevention (CDC)

recommends that seniors with bifocal or progressive lenses consider getting a pair of glasses with only a distance prescription for outdoor activities, such as walking. This is because bifocals and progressives can sometimes make things seem closer or farther away than they really are.⁹

Other timely interventions can preserve vision and, therefore, reduce the likelihood of falls. For example, surgery for cataracts generally produces excellent outcomes. Glaucoma can be treated by reducing intraocular pressure with prescription eyedrops or oral medication, sometimes in combination with laser treatments or surgery.¹⁰

As many as 30 chronic health conditions can be identified with routine vision screenings²⁰

- ADHD
- Age-related maculopathy
- AIDS
- Alzheimer's disease
- Ankylosing spondylitis
- Arthritis
- Brain tumors
- Cancer
- Cardiovascular disease
- Cataracts
- Colon cancer
- Crohn's disease
- Diabetes
- Dyslexia
- Glaucoma
- Graves' disease
- Heart disease
- Herpes zoster
- High cholesterol
- Hypertension
- Hypertensive retinopathy
- Juvenile liver disease
- Luekemia
- Lupus
- Lyme disease
- Multiple sclerosis
- Pseudotumor cerebi
- Rheumatoid arthritis
- Sarcoidosis
- Sickle cell anemia
- Sjogren's disease
- Stroke

The financial impact of falls

Falls among adults age 65 and older are very costly for health plans, their members and families. Each year about \$50 billion is spent on non-fatal fall injuries and \$754 million is spent on fatal falls.¹¹

For non-fatal falls:

- \$29 billion is paid by Medicare
- \$12 billion is paid by private or out-of-pocket payers
- \$9 billion is paid by Medicaid

The financial toll for older adult falls is expected to increase as the population ages and may reach \$67.7 billion by 2020.¹²

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Vision care solutions to help reduce falls

Through our lens formulary, Versant Health is able to offer members a comprehensive selection of lens options, which includes a wide array of lens functionality. These include the most utilized and requested digital progressives to facilitate viewing at multiple distances; anti-reflective coatings to reduce glare; and blue light protection – all at affordable prices.

Our lens formulary provides options that specifically address many eyesight problems that contribute to falls among the elderly, including poor depth perception, loss of peripheral vision, poor vision in low light, and damage from blue light and ultraviolet light. For example, Transitions® Signature lenses reduce exposure to harmful blue light, which can accelerate aging of the retina and thereby contribute to age-related macular degeneration. These lenses also block 100 percent of UVA and UVB rays. Polycarbonate/shatterproof lenses are a good option for individuals who have been identified at high risk for falls.

In addition to lens enhancements, comprehensive managed vision care can help mitigate the impact that some chronic diseases have on vision. One example is diabetes.

More than 25 percent of Americans age 65 and older have diabetes, which increases the risk of diabetes-related blindness.¹³ About 30 percent of people with diabetes have diabetic retinopathy. Fortunately, early detection and treatment can reduce the risk of blindness from the disease by 95 percent.¹⁴ Recent advances offer hope to those at risk from the devastating effects of blindness due to diabetic retinopathy. In fact, a study from the journal *Diabetes Care* found that the risk of developing diabetic retinopathy was reduced by 76 percent and progression slowed by 54 percent in response to intensive treatment.¹⁵

Twenty percent of diabetics first learn of their condition through a routine eye exam.¹⁶ In the early stages, when treatment has the greatest likelihood of success, patients with diabetic retinopathy are typically asymptomatic. Thus, a regular eye exam is a critical component of any health and wellness program to reduce blindness from this disease.

Yet, while most people recognize the importance of a routine annual physical to either prevent or detect many chronic health conditions, far fewer appreciate that an annual eye exam has long-reaching benefits beyond just vision correction. Therefore, more education is needed – as well as proactive managed vision care.

Versant Health's managed vision care services cover everything from outreach and preventative measures to routine care and cost management. When patients are diagnosed with an eye disease, we ensure they continue to engage with the correct services when and where they need them. In fact, our diabetes outreach program

Evidence-based strategies, including routine vision screenings and early diagnosis and treatment of eye disease, can minimize the human and financial impact of falls related to vision impairment



reminds these patients to get a retinal exam every year to monitor and track the status of their disease.

"Our team at Versant Health flags any signs of chronic disease that are detected and reported during a routine exam, often before the patient has even had a symptom," said Elizabeth Klunk, RN, BSN, Senior Vice President of Medical Management at Versant Health. "In this way, we are able to help them pre-emptively manage the disease with their primary care physician long before they've had an episode of care."¹⁷

For health plans, Versant Health managed vision care services help to control the costs of eye care, without sacrificing quality, by offering cost-efficiencies through utilization management. Using a highly effective combination of prior authorization and prospective claims review, helps to coordinate and assure continuity of care, prevent delays and minimize the number of unnecessary referrals and follow-up appointments with specialists. This process typically reduces eye-related costs between 15 and 17 percent.

Conclusion

Preventing or reducing falls in older adults could lead to a substantial reduction in pain and suffering as well as healthcare spending.¹⁸ Evidence-based strategies, including routine vision screenings and early diagnosis and treatment of eye disease, can minimize the human and financial impact of falls related to vision impairment.

About Versant Health

Versant Health is one of the nation's leading managed vision care companies serving more than 35 million members nationwide. Through our Davis Vision plans and Superior Vision plans, we help members enjoy the wonders of sight through healthy eyes and vision. Providing vision and eye health solutions that range from routine vision benefits to medical management, Versant Health has a unique visibility and scale across the total eye health value chain. As a result, members enjoy a seamless experience with access to one of the broadest provider networks in the industry and an exclusive frame collection. Commercial groups, individuals, third parties, and health plans that serve government-sponsored programs such as Medicaid and Medicare are among our valued customers.

For more information visit [versanthealth.com](https://www.versanthealth.com).



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