A Leading Cause of Vision Loss in Older Adults [1]

Education & Awareness [2]

Screening, early diagnosis & treatment can help preserve seniors’ sight

Marilyn* speaks with love and admiration about her mother Rose, an unflappable woman who raised five children in a sleepy New Jersey suburb best known for having been the home of rocker-turned-philanthropist Jon Bon Jovi.
Rose maintained her customary composure when she was diagnosed at 84 with Age-related Macular Degeneration (AMD), a common cause of vision loss among older adults.\textsuperscript{1} And although it’s been a decade since she passed away, Marilyn remembers how, after her widowed mother moved to a retirement community in upstate New York, Rose would watch her favorite shows from a rocking chair positioned at an “odd angle” to the TV set in her bedroom.

“By then, she’d lost her central vision and had only peripheral vision,” Marilyn recalled. “She could only see from the corners of her eyes.”

Although Rose never complained about her deteriorating sight, Marilyn said her mother was visibly relieved when her ophthalmologist reassured her that her vision wasn’t likely to worsen. The assurance that she would not become totally blind “was a huge comfort to her,” Marilyn recalled.

Americans fear blindness more than the loss of memory, hearing or speech, according to a recent survey. In fact, blindness ranked among the four “worst things that could happen to you” for all respondents, alongside cancer, Alzheimer’s disease and HIV/AIDS.\textsuperscript{2} The value individuals place on sight isn’t exclusive to Americans.

“For many people, their eyesight is more important than how long they live,” said Eli Zangvil, Global Brand Medical Director at Novartis. “If you ask them if they are willing to lose five years of life or their eyesight, they prefer to preserve their eyesight.”

However, as baby boomers age and people live longer, the risk for developing sight-stealing diseases such as AMD is growing. In the United States alone, the estimated number of people with AMD will more than double from 2.1 million in 2010 to 5.4 million in 2050.\textsuperscript{3, 4} Globally, an estimated 196 million people are projected to have AMD by 2020, climbing to 288 million by 2040.\textsuperscript{8}

“Based on what we know now, we expect to see huge growth in the number of people with AMD,” Eli said. “It’s a burden that’s growing and growing.”

What is AMD?

A leading cause of vision loss among adults age 50 and older, AMD causes damage to the macula, a small spot near the center of the retina. The macula is the part of the eye needed for sharp central vision, the ability to see objects that are straight ahead.\textsuperscript{1}
In some patients, AMD advances so slowly that vision loss doesn’t occur for a long time. In others, however, the disease progresses faster and may lead to a loss of vision in one or both eyes.\(^1\)

There are two types of AMD, “dry” and “wet.” Dry AMD affects 90 percent of people with the condition. In dry AMD, cells within the macula gradually thin or break down, a process known as atrophy. Dry AMD slowly erodes central vision and can affect one or both eyes. Vision loss may go unnoticed if only one eye is affected, because the unaffected eye may compensate for vision loss in the other eye.\(^5\)

In addition to loss or blurriness of central vision, symptoms of dry AMD include hazy vision, the need for increased lighting for near vision, colors appearing faded and less vivid, and difficulty seeing when going from bright to low light.\(^5\)

Although wet AMD is less common, it can cause more damage to central vision than dry AMD. Wet AMD occurs when fluids leak from abnormal blood vessels under the macula. In wet AMD, symptoms generally appear and progress quickly.\(^5\)

They include loss of central vision, dark or blank spots that appear, colors that appear faded and less vivid, the size of objects appearing different for each eye and distorted vision, such as a straight line that appears to be crooked.\(^5\)

AMD is a devastating diagnosis, and some patients experience depression in the months after learning they have the condition.\(^6\) By itself, AMD doesn’t lead to complete blindness. However, the loss of central vision can interfere with everyday activities, such as the ability to recognize faces, drive, read, watch television, cook or do anything that involves fine detail. AMD also impacts families, since patients are often unable to drive and require assistance with the tasks of daily life.\(^1, 6\)

In addition to age, risk factors for AMD include smoking, high blood pressure, elevated cholesterol, obesity, a family history of the disease and race. AMD is more common among Caucasians than among African-Americans and Latinos.\(^1, 5\)

Despite their overriding fear of blindness, fewer than half of all adult Americans have received a comprehensive eye exam, the means of detecting vision problems that include AMD.\(^7\)

Treating AMD

There is no cure for AMD. While there are no proven treatments for dry AMD, there are several treatment options for wet AMD. These therapies may slow the progression of the condition and may prevent severe vision loss.\(^12\)

The leading treatments are anti-angiogenic drugs, which are injected into the eye. They can
block development of new blood vessels and leakage from the abnormal vessels within the eye that cause wet AMD. These treatments have had a major impact on the treatment of wet AMD, enabling many patients to regain vision that was lost. Studies credit these treatments with having reduced legal blindness due to wet AMD by about half. 9, 10, 11, 12

There are two other types of treatments for wet AMD, those of laser therapy and photodynamic laser therapy.12

Laser therapy can sometimes be used to destroy actively growing abnormal blood vessels to prevent further leakage and bleeding in wet AMD.12

Photodynamic laser therapy (PDT) is a two-step process in which a light-sensitive drug is injected into the bloodstream and absorbed by the abnormal blood vessels in the eye. A doctor then shines a cold laser into the eye to activate the drug, and cause it to block abnormal blood vessels.12 Novartis introduced PTD in 2000, making it the first treatment to become available for wet AMD.

Help Through Partnerships

Through its support for two key programs of the San Francisco-based American Academy of Ophthalmology Foundation, the Alcon Foundation helps eye care providers and patients dealing with AMD and other vision issues.

The Ophthalmic News and Education (ONE) Network is the Academy’s flagship educational resource online for ophthalmologists. It is the largest online compendium of ophthalmic knowledge in the world.

Every month, about 100,000 visitors take advantage of site resources, including thousands of clinical videos, podcasts, images, interactive cases and courses and simulators. The ONE® Network also provides ophthalmologists access to 10 leading ophthalmology journals, practice guidelines and certification resources.

“Through generous donations from partners like the Alcon Foundation, which has supported The ONE Network since 2008, the Academy is able to make this resource available to members, but also ophthalmologists and doctors in training around the world,” said Dr. Rahul N. Khurana, a retina specialist who is Editor-in-Chief of The One Network.

Roughly half of the visitors to the site hail from outside the U.S., according to Rahul, who said The ONE Network helps ensure that doctors everywhere can access up-to-date information on evidence-based medicine and research.
“Our hope is that this can help elevate the quality of care in ophthalmology globally,” he noted.

The Alcon Foundation also supports EyeCare America®, an award-winning program that has helped provide sight-saving care to more than 1.8 million seniors and at-risk individuals since 1985.

EyeCare America helps them overcome the access-to-care barrier by referring eligible patients to one of more than 6,000 volunteer ophthalmologists across the country. Patients are matched by zip code to the nearest available volunteer, making it easier for them to keep appointments, even if transportation or limited mobility is an issue.

“The partnership between EyeCare America and the Alcon Foundation has been nothing short of a success,” said Dr. John Berdahl, Seniors Eyecare Program Chief for EyeCare America.

He noted that the Alcon Foundation’s financial support has enabled EyeCare America to implement targeted promotional efforts to increase the number of people the program serves.

“The sponsorship also allows EyeCare America to promote its services in Spanish and Chinese and actively reach out to social service agencies, senior centers and community coordinators to help spread our message,” John added.

Continued Research Efforts

Meanwhile, Novartis and Alcon will continue working toward new treatment options for the millions of individuals living with AMD today, as well as those who will develop the condition in years to come.

“Our goal is to develop new drugs with different mechanisms of action to treat earlier stages of the condition, cause greater vision gains and possibly even restore vision to 20/20,” Eli said optimistically. “In the distant future, we hope to address the underlying reasons for the disease, possibly with genetic therapy and other high-technology advances we’re working on now.”
References


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Education & Awareness [9]

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