Common Misconceptions Regarding Macular Degeneration

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Age-related macular degeneration (AMD) is a progressive disease of the retina wherein the light-sensing cells in the central area of vision (the macula) stop working and eventually die. The disease is thought to be caused by a combination of genetic and environmental factors, and it is most common in people who are age sixty and over.

AMD can be a confusing diagnosis. With so many facets to its diagnosis, symptoms, pathology, and treatment ... misunderstandings flourish. Here are ten of the most common misconceptions, each followed by a straight explanation based upon current knowledge.
Misconception #1: “AMD causes blindness.”

**Truth:** At its worst, AMD will damage only the center of the retina at the back of the eye. This area, the macula, comprises less than 5% of the total retina, but it is responsible for about 35% of the visual field. That means that a person with both eyes affected will eventually find it difficult or impossible to read, drive, or recognize faces.

The peripheral vision, however, is left untouched, so macular degeneration does not, by itself, lead to blindness. Many affected people move about with little or no assistance and lead independent, productive lives. The most successful of them have also learned to use a wide variety of **assistive devices** such as magnifiers, specialbioptic glasses, navigation software, and electronic readers to maximize their peripheral vision and other senses.

**Link:** What is Macular Degeneration?

Misconception #2: “AMD is a growing epidemic.”

**Truth:** Recent research has found that the risk of developing AMD has been dramatically lessening over three generations. For that matter, Baby Boomers (born between 1946 and 1964) may experience better retinal health over a longer period of time than the two previous generations. The incidence decline of AMD may be attributed to better environmental conditions, sanitation, nutrition, and prevention strategies. That said, the number of people with visual impairment or blindness in the United States is still expected to double by the year 2050. This is due, however, to the aging population, not because of an increased risk of developing AMD.
Misconception #3: “Wet and dry AMD are separate diseases.”

Truth: Dry AMD is distinguished by yellowish deposits of cellular debris (“drusen”) in the retina. The material comprising drusen is usually carried away by the blood vessels, but that ability is diminished in AMD.

About 10-15% of dry AMD cases progress to the “wet” form, in which immature blood vessels grow and leak into the retinas of people who have a high genetic inflammatory response. Inflammation is the body’s way of trying to deliver nutrition to injured or diseased tissue. The process is beneficial to the rest of the body, but it can cause scarring and central vision loss if not treated in time.

Wet AMD is, therefore, normally an adverse result of dry AMD, not a separate disease state. People with a normal inflammation response are usually not affected.

Misconception #4: “Reading in dim light will make AMD worse.”

Truth: “Turn on the light”, said Grandma. “You’re going to ruin your eyes.” She meant well, but her suggestion should have been simply, “Turn on the light. You’ll be able to see better.”

Eyes are damaged no more by reading in dim light than are ears by listening to soft music. Actually, the wearing demand on the sight cells increases as the light grows brighter, which may prove harmful to the vision of people with retinal deficiencies. The wisest approach would be to compromise between “enough light to see by” and “too much light.”
Misconception #5: “Viewing cell phone, television, and computer screens damages the eyes.”

**Truth:** No scientific evidence has yet revealed that light from such devices causes eye damage. The sun and full spectrum lamps which imitate the sun’s high blue content are the two strongest and most harmful sources of light. By comparison, blue light intensity from cell phones, televisions, and computer screens is much less than either of those sources. However, until we have more evidence, it may be prudent to simply follow sensible practices like limiting screen time, taking periodic breaks, and taking advantage of light-filtering options.

**Link:** Blue Light Research Study

Misconception #6: “Cataract surgery causes AMD”

**Truth:** The retina is located in the interior of the back of the eye, and cataract surgery replaces the lens at the front of the eye. For that reason, most retinal surgeons say that there is minimal danger of retinal complications from such surgery.

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Continued ... “Misconception #6”

Cataract surgery will not restore vision lost from retinal disease, but replacement of a clouded lens can significantly improve remaining vision, while offering the doctor a clearer view of the retina.

In light of the small risk, standard practice is to defer cataract surgery until vision loss from a cataract significantly reduces a patient’s quality of life. At that point, the benefit/risk ratio is sufficiently high to warrant the procedure.

Link: More information concerning Cataract Surgery & AMD

Misconception #7: “Stem cell replacement can cure AMD”

**Truth:** The media has been full of news about stem cell therapy as a future treatment for AMD. It is true that, in trials, stem cells are replacing the retinal pigment epithelium (RPE) layer that supports the sight cells (photoreceptors). And it is true that scientists are now beginning to replace damaged photoreceptor cells in animal models.

As exciting as this is, stem cell replacement will not be a cure for AMD. Like a patch on a tire, it can restore vision for a time (maybe even until the end of life) but it does not address the underlying cause of the disease. The cure will more likely come from the field of gene replacement therapy, which is still several years down the road.

Link: More information on Stem Cell Therapy
Misconception #8: "Anti-VEGF drugs for wet AMD will reverse vision loss."

**Truth:** The anti-VEGF (antiangiogenic) drugs for treatment of wet AMD are designed only to block new blood vessel growth. The intent is not to restore vision, but to maintain current vision and prevent future damage. Some patients, however, do see an improvement after initial injections, but that is mostly due to diminished swelling of the retina and gradual dissipation of collected blood.

While anti-VEGF drugs can effectively stop rapid vision loss from uncontrolled blood vessels, most patients with wet AMD will continue to experience a gradual decline in vision over months and years until new treatments for geographic atrophy (advanced dry AMD) are available. Such treatments are now in trials.

Misconception #9: "Special glasses, eye exercises, electrical stimulation, acupuncture, and nutritional supplements can reverse AMD."

**Truth:** Nothing has yet been developed that will reverse AMD. Special prismatic lenses can redirect the wearer’s focus onto a healthier part of the retina. Magnification can enlarge an image to where it can be seen better peripherally. Eye exercises, electrical stimulation, and acupuncture can improve blood flow, temporarily improving visual acuity. And certain nutritional supplements can help to slow the progression of the disease. But once the retinal cells have begun to show the effects of aging, no lens, device, or vitamin can reverse AMD.
Misconception #10: “Nothing can be done”

Truth: By saying that nothing can be done about AMD, a doctor is saying that there is nothing medically that can be done other than anti-VEGF treatment for the wet form. AMD is incurable at this time, but hard-working researchers are close to providing answers. Meanwhile, there is much than can be done to maintain a person’s quality of life with visual impairment. Low vision rehabilitation can provide a strong foundation of knowledge and skills. Assistive devices and computer software equip low vision people with nearly every possible substitute for lost vision. And patient support organizations are ready to provide information and helpful social contact with others who share similar experiences.

Link: Raise your hopes ... see up-to-date Video Interviews with with the world's leading Research Scientists

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Clinical Trial Information

Nat’l Eye Institute
800-411-1222 or www.nei.nih.gov

Clinical trials have guidelines called “inclusion” and “exclusion” criteria. These criteria (age, gender, type and stage of disease, etc.) keep participants safe and ensure researchers will be able to answer the questions they plan to study.

National Disability Rights Network

by Margie DeMars, Low Vision Correspondent

The National Disability Rights Network (NDRN) is a nonprofit membership organization for the federally mandated Protection and Advocacy Systems and Client Assistance Programs. Collectively, the network is the largest provider of legally based advocacy services to people with disabilities in the United States.

The NDRN website has a listing of all the Protection and Advocacy groups in all areas covering community living, criminal justice, special education, residential facilities, vocational rehabilitation, and employment for those with any type of disability. It allows individuals with disabilities to engage in the same interactions as individuals without disabilities ... in the community, at school, in the workplace, using transportation, communicating and ease of access online. Browse ndrn.org and check your area for services and solutions. For more information, see visgroup.org or call Linda Simmons at 931-787-1772.