

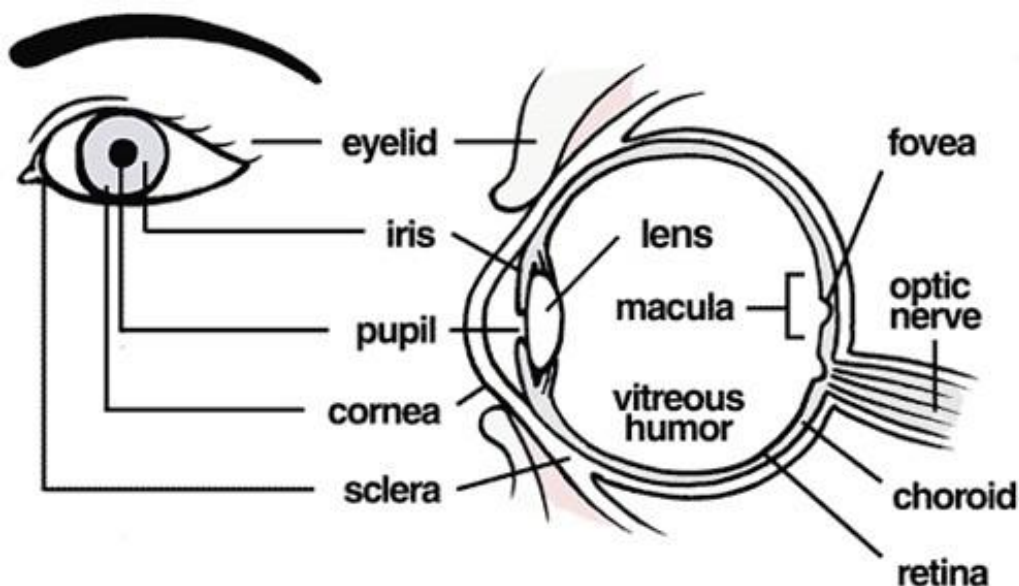
Frequently Asked Questions about Macular Degeneration

What is macular degeneration?

Age-related macular degeneration (AMD) impacts millions of people and is the leading cause of blindness in adults 50 and older in the U.S. It occurs when the macula (part of the retina that lets you see color and fine detail) becomes damaged. This type of central detail vision loss affects reading, driving, watching TV, sewing, seeing the faces of family and friends, and any other task that requires focusing on small objects. AMD is a chronic condition with a high genetic prevalence.

Where is the macula?

The macula is located in the center of the retina, the light-sensitive tissue at the back of the eye. The retina instantly converts light or an image into electrical impulses. The retina then sends these impulses, or nerve signals, to the brain.



www.mvrf.org - illustration based upon information from National Eye Institute / National Institutes of Health

What is dry macular degeneration?

Dry AMD is the most common type of AMD and vision loss is usually gradual. In fact, in its early stages, changes in vision may be hard to notice. Straight lines may appear wavy or it may look like there are blank spots in the center of vision. Colors may look dim.

Dry AMD has three stages, all of which may occur in one or both eyes:

1. **Early AMD.** People with early AMD have either several small drusen or a few medium-sized drusen. At this stage, there are no symptoms and no vision loss.
2. **Intermediate AMD.** People with intermediate AMD have either many medium-sized drusen or one or more large drusen. Some people see a blurred spot in the center of their vision. More light may be needed for reading and other tasks.
3. **Advanced Dry AMD.** In addition to drusen, people with advanced dry AMD have a breakdown of light-sensitive cells and supporting tissue in the central retinal area. This breakdown can cause a blurred spot in the center of your vision. Over time, the blurred spot may get bigger and darker, taking more of your central vision.

What is drusen?

Drusen are deposits that lie beneath the retina in a layer called Bruch's membrane. Drusen can be a marker for macular degeneration (especially in the 50+ age group) because there appears to be an increased risk for macular degeneration as the number of drusen increases. Fat also accumulates in Bruch's membrane with age. This may also contribute to drusen formation. Drusen can be thought of as backed up waste products from various layers of the retina. Most people with drusen have no symptoms. However, the development of drusen may be a precursor to macular degeneration.

Are there different types of drusen?

Yes. Drusen occurs in two forms:

Hard, small - do not increase with age and do not pre-dispose a person to macular degeneration

Soft, large - associated with age, may predispose to macular degeneration

How is drusen treated?

There is no clinically effective way to treat drusen. However, several clinical trials are underway to evaluate various methods including laser treatments and their effects on drusen reduction and on the progression of macular degeneration.

How is drusen managed?

It is very important to be followed closely by an ophthalmologist if drusen are present. Only an ophthalmologist can monitor subtle changes in the retina and manage any complications that may arise.

What is wet macular degeneration?

Wet AMD results when abnormal blood vessels from underneath the retina leak blood or fluid causing that portion of the retina to bulge. This bulging of the retina distorts vision and is characterized by a sudden decrease in central vision. An eye with wet AMD will usually lose its ability to see fine detail; although prompt treatment may slow or minimize vision loss.

Can dry AMD turn into wet AMD?

Yes. All people who have wet AMD had dry AMD first.

Dry AMD can advance and cause vision loss without turning into wet AMD or dry AMD can suddenly turn into wet AMD, even during early stage AMD. Because of this, dry AMD should be monitored closely.

Which is more common – dry AMD or wet AMD?

Dry AMD is much more common. More than 85% of all people with intermediate and advanced AMD combined have dry AMD. However, if only advanced AMD is considered, about two-thirds of patients have wet AMD. Since almost all vision loss comes from advanced AMD, wet AMD leads to significantly more vision loss than dry.

How do I know if I have macular degeneration?

An eye doctor can determine if a person has macular degeneration.

How can macular degeneration be prevented?

Universal recommendations of prevention include:

- Stop smoking
- Wear sunglasses to prevent exposure to ultraviolet light
- Maintain a healthy diet containing antioxidants, lutein and zeaxanthin.

Although studies examining these interventions have produced conflicting results with regard to preventing or minimizing macular degeneration, studies showing the general health value of stopping smoking and eating a diet rich in antioxidants are well supported.

How can age-related macular degeneration be managed?

1. Regular eye examinations - It is very important that people with AMD monitor their vision daily since sudden vision changes may be a sign of wet AMD or new abnormal blood vessel growth or leaking.
2. Self-monitoring of vision - A simple test, called an Amsler grid, can reveal signs of macular degeneration such as blurry areas, wavy lines, or blank spots. Any changes should immediately be reported to the ophthalmologist.
3. The use of low vision aids - Low vision aids can help with tasks that require detailed vision. It is also helpful to see a low vision specialist, a doctor specifically trained in low vision rehabilitation. Aids such as magnifiers, closed circuit television, reading machines, writing guides, large-faced appliances and clocks, large-print checks, and large print reading materials can help people continue to read and take care of themselves.

What is the impact of macular degeneration?

In personal terms, vision is the most important of the five senses: it links us most intimately to the world. Vision allows one to see a new grandchild, read a letter from a friend, scan a computer screen or navigate through traffic. At the beginning stage, AMD alone does not result in complete loss of sight and most people continue to have some useful vision and are able to take care of themselves. As the disease advances, it is devastating, robbing people of their independence and has a negative impact on the ability to function well in everyday life. The economic impact of visual impairment and blindness to the individual, caregivers and other healthcare payers, including the value of time and quality of life in the U.S comes to approximately \$51.4 billion annually.¹

¹ The Economic Impact of Vision Problems, 2007 Prevent Blindness America

Will removing a cataract improve vision?

There is no simple answer to this question. An ophthalmologist can advise you about your particular and unique condition.

Who is at risk for AMD?

The greatest risk factor is age. Although AMD may occur during middle age, studies show that people over age 50 are clearly at greater risk than other age groups.

Other risk factors include:

- **Smoking.** Smoking may increase the risk of AMD.
- **Obesity.** Research studies suggest a link between obesity and the progression of early and intermediate stage AMD to advanced AMD.
- **Race/Ethnicity.** Highest prevalence in Caucasians and Asian Americans.
- **Family history.** Those with immediate family members who have AMD are at a higher risk of developing the disease.
- **Sex.** Women appear to be at greater risk than men.

How many people have AMD?

There is a direct correlation between the increase in AMD and the growing aging population in the United States. Future statistical projections estimate that by the year 2020; approximately 20 million Americans will suffer from macular degeneration and other retina-related debilitating diseases.²

If you have any questions, please call Lynn at 1-866-4MACULA or visit www.mvrf.org for more information.



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² National Eye Institute, NIH and American Society of Retina Specialists reports