

MACULAR DEGENERATION

What is Macular Degeneration?

Macular degeneration is an eye disorder that damages the **macula**-the area of your eye that allows you to see fine detail which is important for activities like reading, driving and recognizing faces. It is also called **age-related macular degeneration (AMD)**, as it tends to affect older adults. Macular degeneration is the leading cause of vision loss and blindness in Americans age 65 and older.

There are two forms of macular degeneration:

1. Dry macular degeneration

Dry Macular degeneration is the most common form and is characterized by the formation of small yellow deposits (called drusen) that form under the macula. When these yellow deposits increase, central vision or the ability to see fine details gradually worsens over time.

2. Wet macular degeneration

Abnormal growth of blood vessels leaks blood and fluid below the macula which eventually causes permanent damage to the central vision. Without proper treatment, this leads to vision loss very quickly.

Risk Factors for Macular Degeneration:

- Family history
- Aging
- Obesity and inactivity
- High fat intake
- High blood pressure
- Smoking

Signs and Symptoms of Macular Degeneration

Dry macular degeneration usually develops gradually and painlessly and may have the following signs and symptoms:

- Blurred vision (most common)
- The need for more light when performing close work or reading
- Difficulty recognizing faces

In contrast, wet macular degeneration develops rapidly and may have the following signs and symptoms:

- Straight lines that appear wavy
- Decreased central vision
- Decreased intensity of colors
- Blind spot in your vision

See your health care provider immediately if you develop any of the above symptoms.

Diagnosis of Macular Degeneration

- An eye exam – your doctor may look for abnormalities in your vision, such as the development of drusen.
- Fluorescein angiography – a process used to detect any abnormal blood vessel growth in the eye.
- Optical Coherence Tomography (OCT) – scanning laser used to study different retinal layers.

Treatment of Macular Degeneration

There is currently no treatment for dry macular degeneration, but nutrition is often used to slow the progression of the disease. A combination of vitamins C, E, zinc, copper, and antioxidants (lutein, zeaxanthin) may be helpful. Individuals with the disease should change their diets by lowering fat intake, increasing fruit and vegetable intake, and also increase their physical activity. The following treatments are available for wet macular degeneration:

- Laser surgery: A laser beam is used to destroy abnormal, leaky blood vessels.
- Photodynamic therapy: A drug is injected into your body, and then activated by a cold laser beam directed into the eye to release substances that destroy leaky vessels. This method improves your chances of preserving your vision and may slow down vision loss.
- Special medications that stop abnormal blood vessel growth in the eye e.g. anti-VEGF antibodies.

There are hundreds of research projects on the treatment of Macular Degeneration. It is hopeful that newer treatments will be available soon.

Prevention of Macular Degeneration

- Eat a balanced diet, especially foods that contain antioxidants such as colorful fruits and vegetables, nuts and seeds, fatty fish.
- Make lifestyle changes - stop smoking, lower fat intake, and increase physical activity.
- Manage other underlying diseases, such as obesity, heart disease, and high blood pressure.
- Get regular eye examinations, especially when you are over 60. Early detection is the key to preventing severe vision loss.

Living with Macular Degeneration

If you are diagnosed with macular degeneration, simple lifestyle changes can help you cope with the disease.

- Check with your doctor to make sure that it is safe for you to drive. Avoid driving at night, or during times of bad weather, or heavy traffic.
- Don't isolate yourself. Travel with others and talk to friends and family so they can help you with your daily chores or errands.
- Invest in a good pair of magnifying glasses to help you see better.
- Tablet computers such as iPad can be helpful as well.

For more information:

National Eye Institute: <http://www.nei.nih.gov>