

Anti-VEGF treatment may help slow vision loss in people with wet macular degeneration. Researchers have found that a certain chemical in your body is critical in causing abnormal blood vessels to grow under the retina. That chemical is called vascular endothelial growth factor, or VEGF.

Recently, scientists have developed several new drugs (anti-VEGF) that can block the trouble-causing VEGF. Blocking VEGF reduces the growth of abnormal blood vessels, slows their leakage, and helps to slow vision loss.

The anti-VEGF drug must be injected into your eye with a very fine needle. Your ophthalmologist will clean your eye to prevent infection and will administer an anesthetic to your eye to eliminate discomfort. Usually, patients receive multiple anti-VEGF injections over the course of many months. As with any medical procedure, there is a small risk of complications.

Complications can result from the injection itself, which in very rare circumstances can lead to an infection.

In some cases, your ophthalmologist may recommend combining anti-VEGF treatment with other therapies, for instance, with laser therapy. The treatment that's right for you will depend on the specific condition of your macular degeneration.

Low vision aids may help people that have already suffered some vision loss. Most low vision aids combine magnification and bright lights. People may need to try different types for different situations. There are also books, newspapers, and other items available in large print to further help with reading.

Does nutrition play a role?

Vitamin supplements consisting of vitamin C, E and beta-carotene plus zinc can stabilize dry macular degeneration and help slow down the disease. Your eye doctor can advise you as to which supplements are suitable for you. If you smoke you should try to quit since this has been proven to worsen your disease over time. Smokers should not take supplements with beta-carotene due to an increased risk of lung cancer. Also, tell your doctor if you are taking blood thinners such as coumadin since this can sometimes interact with vitamin E.

Your Eye Care is Our Number One Concern

At TLC Eyecare and Laser Centers, we are committed to providing premier eye care service. Our state-of-the-art diagnostic equipment allows early diagnosis of common eye problems such as cataract, glaucoma, macular degeneration, and diabetic retinopathy, often before symptoms occur. Our board-certified ophthalmologists and optometrists use the newest technologies and treatments available in the United States today, allowing us to treat eye ailments safely and effectively.

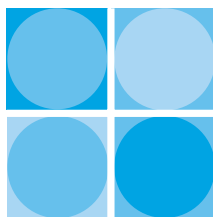
Offering State-of-the-Art Eye Care to Our Patients

Vision is one of the most important of the five senses, and healthy eyes are necessary for good vision. Eye problems can occur at any age, but the chance for developing them increases as we age. Vision problems can affect a person's overall health, causing disability, stress, and a decreased quality of life.

Early detection of eye problems is vital for maintaining healthy eyes. Diagnosing an eye disease in its early stages minimizes its damage and greatly affects the success of treatment. Because many eye ailments have no symptoms until their advanced stages, regular and thorough eye exams with our Affiliate Network of optometrists are necessary throughout your lifetime to help maintain healthy eyes.

We Make it Easy for You To Maintain Healthy Eyes

With several vision centers located throughout Michigan and Ohio, our patients enjoy easy access to quality eye care whenever and wherever they need it. Because TLC Eyecare and Laser Centers have doctors on call twenty-four hours a day, seven days a week, our patients have immediate access to treatment for unforeseen eye injuries and accidents.



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Macular Degeneration



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Macular Degeneration

What is macular degeneration?

The retina is a layer of light-sensing cells lining the back of your eye. As light rays enter your eye, the retina converts the rays into signals, which are sent through the optic nerve to your brain where they are recognized as images. The macula is the central portion of the retina responsible for clear, detailed vision which is needed for activities such as reading and driving. Macular degeneration is more common in people over 50 and people with a family history of macular degeneration.

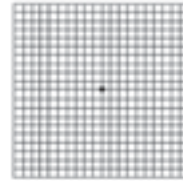
What are the symptoms of macular degeneration?

Many patients do not realize they have a macular problem until vision loss becomes severe. By having yearly eye exams, your eye doctor can detect macular degeneration in the early stages. Symptoms can include blurry or fuzzy vision, straight lines such as sentences on a page appear wavy, and/or a dark or empty area may appear in the center of the vision. The loss of detailed vision affects only your central vision and not the side or peripheral vision.

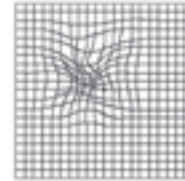
How is it detected?

There are many tests your eye doctor can perform to determine which form of degeneration you may have:

The **amsler grid** is a chart for monitoring your central visual field. It makes it possible for you to tell if there are disturbances in your vision caused by changes in the macula. You may do this test at home. In an area with good lighting, hold the chart at the level used for reading while wearing glasses normally used for reading. Cover one eye and look at the central dot on the grid. At the same time, observe the pattern of vertical and horizontal lines on the chart. Repeat the test with the other eye. If you experience any of the following changes, you should report this to your doctor immediately: blurring, distortion, curvy lines or blank areas.



Normal Amsler Grid



Abnormal Amsler Grid

- A **fluorescein angiogram** may be recommended by your doctor. A series of photos will be taken after a dye is injected into the patient's arm. This test can help determine if there is abnormal blood vessel development. A special ultrasound called an OCT can also be used to detect fluid under the retina.



Fluorescein Angiogram

Early detection of macular degeneration is important to help prevent permanent vision loss. Have your eyes examined annually for signs of eye problems like macular degeneration.

What are the types of macular degeneration?

There are two types of macular degeneration, dry and wet. The **dry** form accounts for 90% of cases. It develops slowly and causes mild visual loss early on but can progress over time. Tissue breakdown in the macula is the cause of dry macular degeneration. The tissue breakdown is a gradual deterioration and for months or years the patient may not notice any central vision loss. Sometimes patients will notice that door frames, light poles, or buildings appear slanted or distorted and then schedule an eye exam.

Any type of distortion should be promptly reported to your eye doctor. Although dry macular degeneration is more common, it is the less serious form of macular degeneration. **Wet** macular degeneration accounts for only 10% of cases and it is a much greater threat to vision loss. The wet form of the disease occurs when new blood vessels grow beneath the retina where they leak fluid and blood and can create a large blind spot in the center of the visual field. If this happens there will be a marked disturbance of vision.

Regular eye exams can help detect and provide early treatment for macular degeneration and may help in preserving vision.

How is macular degeneration treated?

There are no cures for dry macular degeneration. There are a few options for treating wet degeneration. **Outpatient laser surgery** may be an option for people with the more severe wet macular degeneration. The laser beam is used to destroy the abnormal blood vessels and slow down the speed of vision loss. Early diagnosis is very important, because if the abnormal blood vessels have already grown under the macula, the laser might cause as much damage as the presence of abnormal blood vessels.

