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## Macular Degeneration



Wet form of Macular Degeneration

Macular degeneration is an age-related disorder that affects the central part of vision. The central retina, called the macula, is the light-sensitive tissue at the back of the eye. In this disease, that area is damaged so that seeing fine detail is more difficult. Reading and driving can be impaired, like other tasks of daily life. It's a painless disease, and is a leading cause of vision loss in Americans over 60 years old.

There are two forms of macular degeneration, dry and wet. While the dry form is far more common, the wet form is more dangerous to vision and central vision loss can occur very quickly. There are effective treatments for the wet form of macular degeneration, particularly when treatment is started quickly.

Dry macular degeneration develops as light-sensitive cells in the macula break down. As it gets worse, patients may see

a blurry spot in the center of vision. That blurred area can enlarge slowly until central vision is gradually lost in the eye that is affected. While both eyes are often involved, the degree of vision impairment may be unequal. The first sign of macular degeneration is yellow dot-like deposits under the retina, called drusen. If they are present, your eye doctor can see them during the examination. The yellow material probably represents waste products of retinal metabolism, but the connection between drusen and macular degeneration is not yet known with certainty. The more drusen someone has in the macula, however, the more their risk of central vision loss increases.

Wet macular degeneration develops when abnormal blood vessels from behind the retina start to grow underneath the macula. These vessels are fragile, and usually leak blood and fluid, which distorts the macula



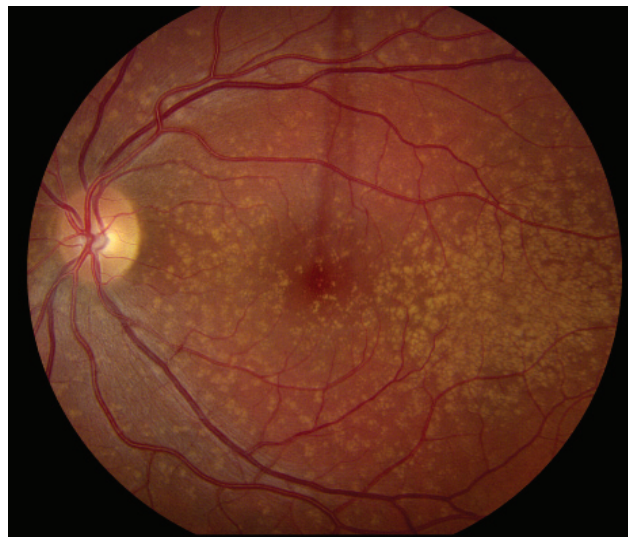
and central vision. Straight lines can appear wavy and letters printed on a page can appear scrambled. Because there are now effective treatments for this condition, it is important to be examined promptly if you develop these symptoms. Early treatment is most effective.

Because one form of macular degeneration is treatable, the distinction between the two forms is important. But the dry form can turn into the wet form, at which point it may become treatable, too. Currently, there is no reliable way to determine if (or when) the dry form will transform into the wet form of macular degeneration.

There are several risk factors for macular degeneration, but increasing age is the most important. A landmark study found that people in middle age have about a two percent risk of developing the disease, but this risk increased to almost 30 percent in people over 75 years old. Smoking and obesity are other important modifiable risk factors.

Once macular degeneration reaches an advanced stage, no form of treatment can prevent vision loss. However, treatment can delay and possibly prevent the disease

from progressing to the advanced stage, in which vision loss occurs. One important research study, the Age-Related Eye Disease Study (AREDS) showed that taking a high-dose formula of anti-oxidants and zinc significantly reduces the risk of advanced macular degeneration. Even slowing the progression of macular degeneration will preserve useful central vision for many people. The formula used in the research study that demonstrated these remarkable effects included 500 mg of



Widespread Drusen in early Dry Macular Degeneration

Vitamin C, 400 I.U. of Vitamin E, 15 mg of beta-carotene (equivalent to 25,000 I.U. of Vitamin A), 80 mg of zinc as zinc oxide, and mg of copper as cupric oxide. We recommend taking this supplement if you are at high risk of developing advanced macular degeneration.

Based on your examination, we can discuss your own particular level

of risk in the office and help you decide if taking the AREDS supplement would reduce your risk.

For people who already have advanced macular degeneration, there are a variety of low vision aids which can improve visual functioning, sometimes dramatically. We may recommend specific vision rehabilitation programs which can allow you to continue the activities you most enjoy.