

## Age-Related Macular Degeneration (AMD)

### What is age-related macular degeneration?

Age-Related Macular Degeneration (AMD) is a problem with your retina. It happens when a part of the retina called the macula is damaged. With AMD you lose your central vision. You cannot see fine details, whether you are looking at something close or far. But your peripheral (side) vision will still be normal. For instance, imagine you are looking at a clock with hands. With AMD, you might see the clock's numbers but not the hands.



With AMD, dark areas can appear in your central vision.

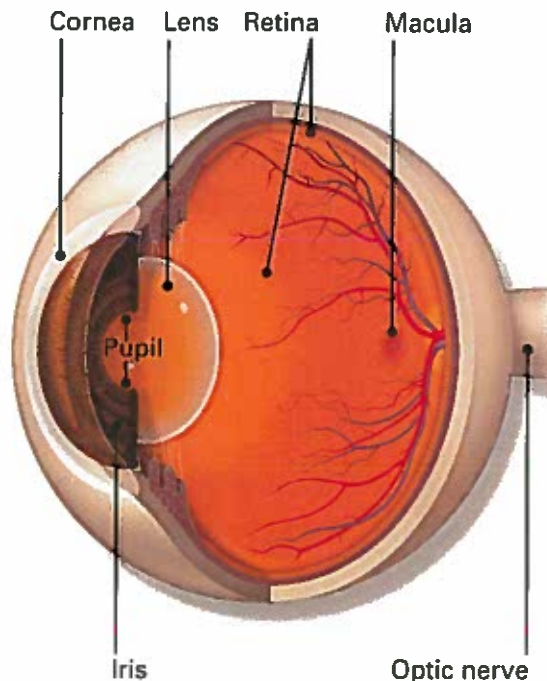
AMD is very common. It is a leading cause of vision loss in people 50 years or older.

### Eye Words to Know

**Retina:** Layer of nerve cells lining the back wall inside the eye. This layer senses light and sends signals to the brain so you can see.

**Macula:** Small but important area in the center of the retina. You need the macula to clearly see details of objects in front of you.

**Drusen:** Tiny white or yellow particles that form under the retina. They seldom cause vision loss. But many (or very large) drusen can be a sign of AMD.



## Two types of AMD

**Dry AMD:** This form is quite common. About 90% (9 out of 10) people who have AMD have the dry form. Dry AMD is when parts of the macula get thinner with age and drusen grow. You slowly lose central vision. There is no way to treat dry AMD yet.

- have a family history of AMD
- are Caucasian (white)

Having heart disease is another risk factor for AMD, as is having high cholesterol levels.

## How is AMD diagnosed?

During an eye exam, your ophthalmologist may ask you to look at an Amsler grid (see the grid on page 4). This grid helps you notice any blurry or blank spots in your field of vision. Your ophthalmologist will also look inside your eye through a special lens. He or she can see if there are changes in the retina and macula.

Your ophthalmologist will put drops in your eye to dilate (widen) your pupil. This allows him or her to look through a special lens at the inside of your eye.

Your doctor may do **fluorescein angiography** to see what is happening with your retina. Yellow dye (called fluorescein) is injected into a vein, usually in your arm. The dye travels through your blood vessels. A special camera takes photos of the retina as the dye travels throughout its blood vessels. This shows if abnormal new blood vessels are under the retina.

**Wet AMD:** This form is less common but much more serious. Wet AMD is when new, abnormal blood vessels grow under the retina. These vessels may leak blood or other fluids, causing scarring of the macula. You lose vision faster with wet AMD than with dry AMD.

Many people don't realize they have AMD until their vision is very blurry. It is so important to have regular visits to an ophthalmologist. He or she can look for early signs of AMD before you have any vision problems.

## Who is at risk for getting AMD?

You are more likely to develop AMD if you:

- smoke cigarettes
- are over 50 years old

**Optical coherence tomography (OCT)** is another way to look closely at the retina. A machine scans the retina and provides very detailed images of the retina and macula.

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### How is AMD treated?

**Dry AMD:** Right now, there is no way to treat the dry form of AMD. However, people with lots of drusen or serious vision loss might benefit from nutritional supplements. A large study found those people may slow their dry AMD by taking these vitamins and minerals daily:

- Vitamin C (500 mg)
- Vitamin E (400 IU)
- Lutein (10 mg)
- Zeaxanthin (2 mg)
- Zinc (80 mg)
- Copper (2 mg)

Your ophthalmologist can tell you if vitamins and minerals are recommended for your dry AMD.

**Wet AMD:** To help treat wet AMD, there are medications called anti-VEGF drugs. Anti-VEGF treatment helps reduce the number of abnormal blood vessels in your retina. It also slows any leaking

from blood vessels. This medication is given through injections (shots) in your eye.

Laser surgery may also be used to treat some types of wet AMD. Your eye surgeon shines a laser light beam on the abnormal blood vessels. This reduces their number and slows their leaking.

Talk with your ophthalmologist about ways to treat your AMD.

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### Making the most of the vision you have

If you have AMD, you can learn how to make the most of your vision. Often you can still do many of your favorite things with special low vision tools. These can include different kinds of magnifiers, handheld computers, electronic items and more.

Also, you can learn how to use your side vision to help you do things. A vision rehabilitation specialist can teach you how this works. They also can help you find many low vision support services and tools.

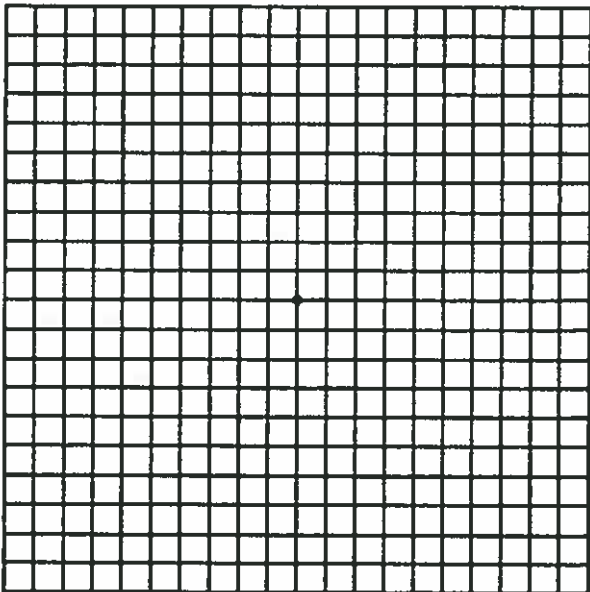
Ask your ophthalmologist to help you find a vision rehabilitation specialist in your area. The goal is to learn new ways to be as independent as possible.



## Test your vision with the Amsler grid

AMD causes vision changes that happen over time. You may not notice these changes when they happen. But you need to catch vision changes as soon as possible. Treating them early can help slow or stop further loss of sight.

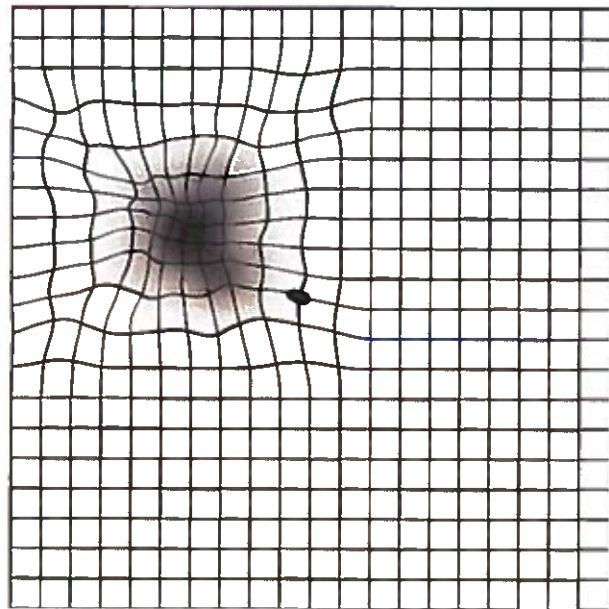
You should use an **Amsler grid** every day to monitor your vision. One is below for you to use.



Here is what to do:

- Keep the Amsler grid in a place where you see it every day. Many people keep an Amsler grid on their refrigerator door or on their bathroom mirror.

- In good light, look at the grid from about 12–15 inches away. Be sure to wear your reading glasses if you normally use them.
- Cover one eye. Look directly at the dot in the center of the grid with your uncovered eye. Notice if any of the lines look bent or wavy. See if the grid seems distorted, blurry, or dim.
- Now cover your other eye and test your vision this same way again.
- Call your ophthalmologist right away if you notice that any lines or parts of the grid look wavy, blurry, or dim.



Amsler grid with wavy lines

## Summary

AMD is a problem with your retina. You lose your central vision, but your peripheral (side) vision will still be normal.

There are two forms of AMD: dry and wet. There is no treatment for dry AMD, though certain vitamins and minerals might help. Wet AMD may be treated with medication or laser surgery.

You should visit your ophthalmologist regularly to monitor vision changes from AMD.

For more information about AMD, scan this code with your smartphone or visit [http://sn.im/\\_macdegen](http://sn.im/_macdegen).



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