

The Partially Sighted Society



MACULAR DEGENERATION

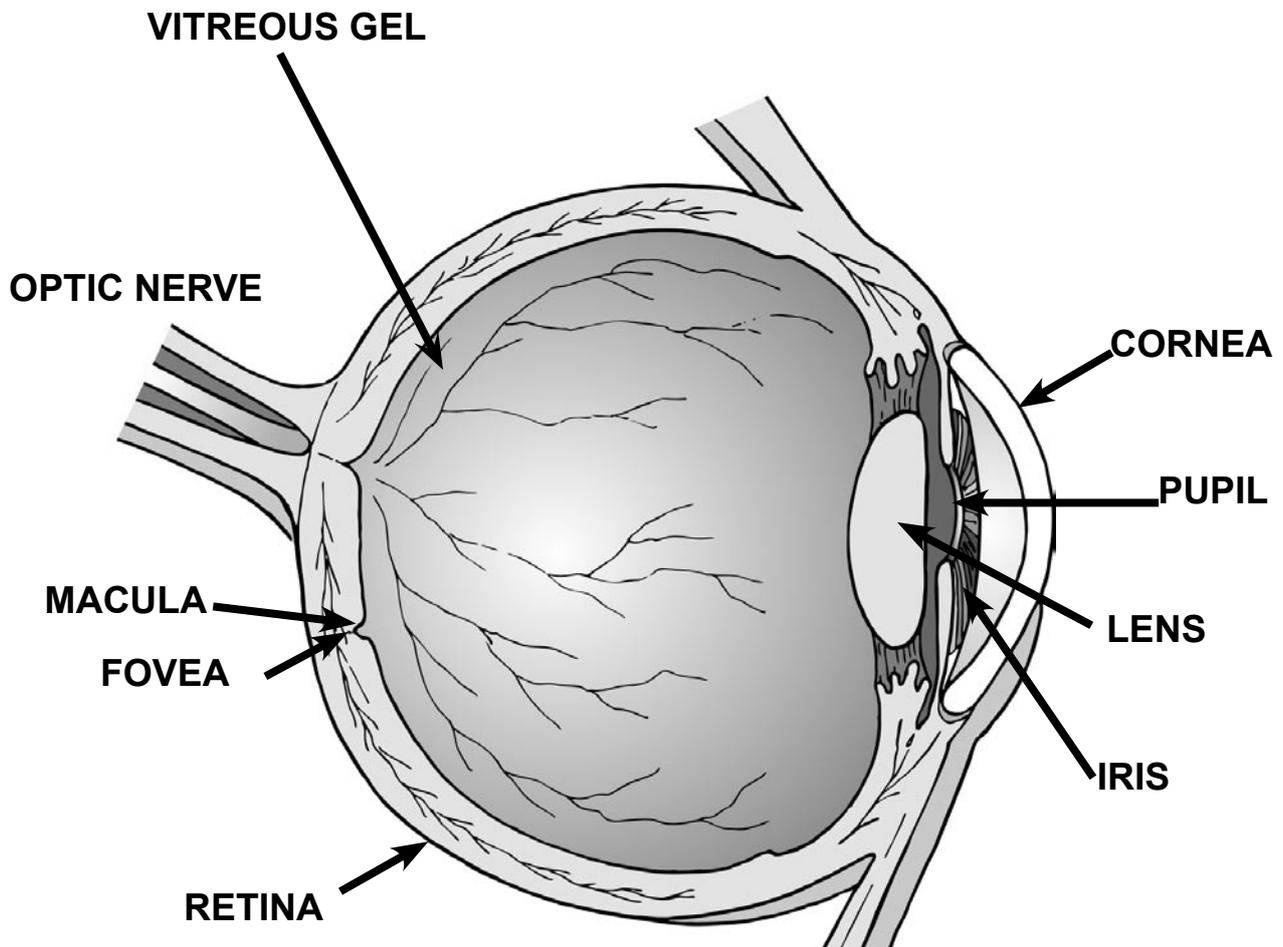
"There has been some bleeding at the back of your eyes."

"There's nothing I can do, but don't worry – you won't go blind."

If you have recently been diagnosed with Macular Degeneration (AMD) then this may have been what your specialist told you. Macular Degeneration (AMD) is the most common cause of loss of vision in people over the age of 50 and, as your specialist told you, does not lead to blindness. But it can cause difficulties that may affect your ability to see and function in your day-to-day life.

So what is Macular Degeneration (AMD)?

At the back of our eyes we have a light sensitive coating called the retina. The retina contains light sensitive photoreceptor cells that transmit the images we see to our brains. Macular degeneration only affects a small part of the retina called the 'macula.' The macula part of our retina is in the central part of our vision and contains a high concentration of photoreceptor cells called 'cones' that enable us to see detail. AMD is a condition that occurs when cone cells in the macula degenerate. Damage to the macula affects your central vision which is needed for reading, writing, driving, recognising people's faces and doing other fine tasks. The rest of the retina is used for peripheral vision - the 'side' vision which is not focused. Therefore, without a macula you can still see enough to get around, be aware of objects and people, and be independent. This peripheral vision is still extremely useful in being able to see and function.



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But what causes Macular Degeneration (AMD)?

The exact cause of AMD is unknown. But there are some common factors amongst sufferers:

- **Age.** The majority of sufferers are over the age of 65.
- **Genetics.** Some types of AMD are inherited.
- **Gender.** Currently, more women than men have AMD. Possibly because women live longer.
- **Smoking.** Studies have shown that if you are a smoker you are more at risk. However, if you stop smoking your chances of developing AMD decrease.
- **Sunlight.** Constant and increased exposure to sunlight can increase your risk of developing AMD due to the ultraviolet light in the sunlight. It is vitally important for everyone to wear sunglasses to protect their eyes. Studies have also shown that those people with light coloured eyes (blue, green) generally have a higher incidence of AMD than those with dark brown eyes. This is due to the lack of protective pigment in the iris.
- **Diet.** For good health we need to eat a balanced diet with plenty of fresh fruit and vegetables. There is some evidence that the vitamins A,C, E and zinc can help to slow the progression of AMD. Latest research has shown that ARED formulation supplements can improve advanced stages of wet AMD by up to 25%. Any supplements should only be taken after discussion with your eye specialist and G.P.

How will I know if I have AMD?

The first symptom people notice is that it becomes harder to see detail. Straight lines become distorted, reading the newspaper or a magazine becomes difficult, even with reading glasses. You may find there is a smudge in your vision – especially when you look straight at something.

You may also become sensitive to light and or see odd shapes and lights. Quite often these changes only happen in one eye.

If you are experiencing any of these symptoms, see your optometrist or eye professional. Occasionally the vision can change quickly. Then you should go to the A&E department of your local hospital to see an eye specialist.

Types of AMD

There are two types of age-related macular degeneration, Dry and Wet.

Dry AMD

This is the most common form and occurs in 9 out of 10 cases. In this type the cells in the retinal pigment epithelium layer of the macula gradually become thin (they 'atrophy') and degenerate. This layer of cells is crucial for the function of the rods and cones which then also degenerate and die. Dry AMD is a very gradual process as the number of cells affected increases. It usually takes several years for vision to become seriously affected. Many people with dry AMD do not totally lose their reading vision.

Wet AMD

Wet AMD occurs about 1 in 10 instances and may also be called neovascular or exudative AMD. However, it is likely to cause severe visual loss over quite a short time - sometimes just months. Very occasionally, if there is a bleed (haemorrhage) from a new blood vessel, this visual loss can occur suddenly, within hours or days. In wet AMD, in addition to the retinal pigment cells degenerating, new tiny blood vessels grow from the tiny blood vessels in the choroid which feeds the retina. This is called choroidal neovascularisation. The new vessels break through into the macular part of the retina. These vessels are not normal. They are fragile and tend to leak blood and fluid. This can damage the rods and cones, and cause scarring in the macula, causing further vision loss.

If the vision of one eye only is affected, you may not notice any symptoms, as the other good eye often compensates. When both eyes are affected you are more likely to notice symptoms. Older people should have regular eye checks to check each eye separately for early AMD (and to check for other eye conditions such as glaucoma).

Always see a doctor or optometrist promptly if you develop visual loss or visual distortion.

How is age-related macular degeneration diagnosed?

Often people only realise they have AMD when they go to their optometrist for an eye test. If you have developed symptoms suggestive of AMD, your doctor or optometrist (optician) will refer you to an eye specialist (ophthalmologist). This should be done urgently, especially if there is any suggestion of wet AMD. The ophthalmologist may ask you to look at a special piece of paper with horizontal and vertical lines to check your visual fields. If you find that any section of the lines is missing or distorted, then AMD is a likely cause of the visual problem. The ophthalmologist will examine the back of your eye with a slit lamp microscope. The ophthalmologist will look for the typical changes that occur with dry ARMD and wet ARMD and will take digital photographs of the retina.

If wet AMD is diagnosed or suspected, then a further test called fluorescein angiography may be done. For this test a dye is injected into a vein in your arm. Then, by looking into your eyes with a magnifier and taking pictures with a special camera, the ophthalmologist can see where any dye leaks into the macula from the abnormal leaky blood vessels. This test can give an indication of the extent and severity of the condition.

Is there any treatment for age-related macular degeneration?

For the more common dry ARMD, there is no specific treatment. There are, however, certain things that can be done to maximise the sight you do have and to improve your eye health. Stopping smoking and protecting the eyes from the sun's rays by wearing sunglasses are important. A healthy balanced diet rich in antioxidants may be beneficial, as may the addition of dietary supplements. In this type of AMD the visual loss tends to be gradual, over 5-10 years or so.

Detailed research has found that a specific combination of high-dose vitamins and minerals to be most effective in advanced cases of AMD. However, there is some concern that the high doses of vitamins and minerals needed may lead to side-effects in some people and because of these potential problems, you should talk to your GP or ophthalmologist before starting any supplements.

For the less common wet AMD, treatment may halt or delay the progression of visual loss in some people. Newer treatments may even be able to reverse some of the visual loss. Treatments which may be considered include treatment with anti-vascular endothelial growth factor (anti-VEGF) drugs, photodynamic therapy and laser photocoagulation.

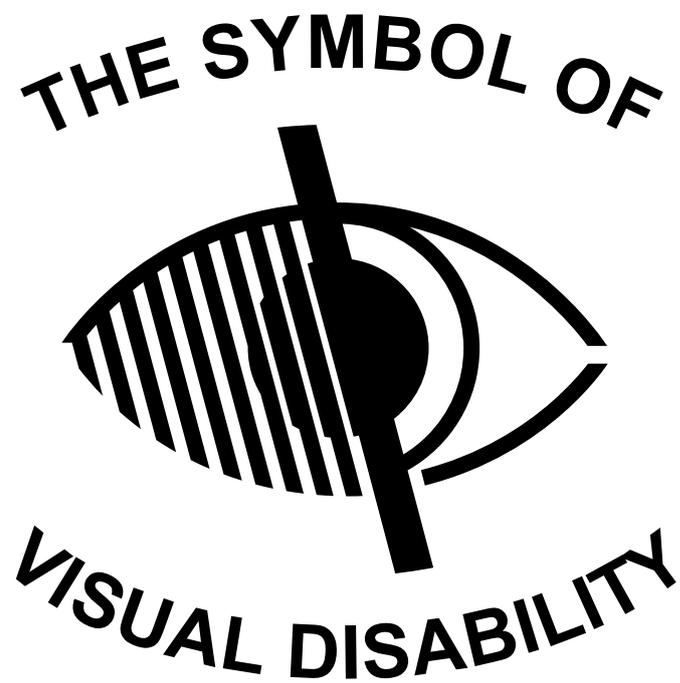
I have been diagnosed with AMD, what now?

- If you smoke, try to stop. If you are a smoker, there are numerous health benefits to quitting. Smoking is a risk factor for many illnesses, including AMD.**
- Eat a healthy balanced diet to try to make sure you get plenty of the types of vitamins that may help in AMD.**
- Stay safe with regards to driving. If you are registered with sight impairment you should not drive and should notify the DVLA. The DVLA website: www.dvla.gov.uk provides detailed guidance on fitness to drive and minimum standards with regard to sight. This includes being able to read, wearing your normal glasses, a vehicle number plate at a distance of 20 metres.**

- **Have regular sight tests as you get older. You should visit an optometrist every two years, even if there is no change in your vision. An eye test can often pick up the first signs of an eye condition before you notice any change in your vision. Your optometrist can advise you how often you need to have an eye check-up, depending on your general health, age, family history and other medical conditions. Early detection of problems often allows more effective treatment.**

- **There are a wide variety of adaptations and aids available to help you cope with living with AMD. Being diagnosed with any sort of eye condition is distressing. But there are a lot of things that can be done to maximise the vision you still have left. At the Partially Sighted Society trained professionals are available to offer help, support, advice and training in the use of visual and non-visual aids which making living with a condition such as AMD easier.**

For more information contact The Partially Sighted Society on 0844 477 4966 or email anita.plant@partsight.org.uk



**©The Partially Sighted Society
1 Bennetthorpe
Doncaster
DN2 6AA
Tel: 0844 477 4966
Website: www.partsight.org.uk**

