

# Treatment for age-related macular degeneration

In some cases, age-related macular degeneration can be treated. Treatment must be given as soon as possible to limit its impact and progress.

This leaflet is available on audio CD.

No one need face macular degeneration alone.  
For information and support call 0300 3030 111.

## Introduction

Age-related macular degeneration (AMD) is the most common cause of sight loss in developed countries.

Over 600,000 people in the UK are affected by AMD. The number is increasing as the population ages.

The macula is the most sensitive part of the retina. It gives us our central vision and the fine detail of what we see. When the macula is damaged, people may not be able to drive and find it hard to read, watch TV and recognise faces.

Dry AMD is a slow deterioration of the cells of the macula, often over many years. There is no medical treatment for dry AMD but research is going on around the world.

Wet AMD is another form of the condition. Tiny abnormal blood vessels grow into the retina which leak and cause scarring of the macula.

A person with wet AMD can lose much of their central vision in a few weeks. There are now treatments for wet AMD which slow the progress of the condition in most people.

**Treatment has to be given quickly, before there is permanent scarring to the macula.**

### **Current treatments for wet AMD**

There is a range of treatments and options available for people with wet AMD. These include drug treatments, laser treatment, dietary advice and supplements.

As well as a new treatment of combined drug and radiation, there are also telescopic lens implants. Not all of these are available on the NHS.

### **Drug treatments by injection**

Several drugs are used to treat wet AMD. They are known as 'anti-VEGF' drugs.

VEGF is short for vascular endothelial growth factor. It is the substance in the body which is responsible for the development of healthy blood vessels. In wet AMD, too much VEGF is produced in the eye, causing the growth of unwanted, unhealthy blood vessels.

Anti-VEGF drugs block the production of VEGF and stop the development of abnormal blood vessels. All the anti-VEGF drugs

are given as an injection into the eye. Don't be alarmed – the injections are much less frightening than they sound.

Lucentis® (medical name ranibizumab) was the first anti-VEGF to be licensed for wet AMD.

All patients receive a standard 'loading dosage' at the start of their treatment: normally three or more consecutive monthly injections.

After this initial phase there are a number of treatment regimens that an ophthalmologist can choose. Each regimen has a subtle difference in the frequency of

appointments. They also vary as to whether or not you have an injection at every appointment.

The ophthalmologist will tailor treatment to individual patients and how their disease is responding to Lucentis®.

**Top tip** – We recommend that patients ask their eye doctor, after their original loading dose, what treatment regimen they are on. From this, patients will be better able to understand the timescale between injections and feel confident that they are not being overlooked in the clinic appointment system or missing any treatment.

Eylea® (medical name aflibercept) is given as three injections a month apart and then every eight weeks for the first year. Your hospital doctor will then decide how often treatment is needed.

Medical trials suggest that the effects of Eylea® last longer than those of Lucentis® and so people may need fewer injections over time.

A third drug, Avastin® (medical name bevacizumab), may be used in rare circumstances. But Avastin® is an anti-VEGF drug used to treat cancer and is not licensed for use in the eye.

### **How is the injection given?**

The majority of patients are treated at a hospital in a designated injection room. The eye is examined first to check that an injection is needed. If it is, the procedure may take place on the same day or the person may have to return.

When the injection is given, the patient reclines on a couch. The eye to be treated is held open with a device called a speculum and anaesthetic drops are used to numb it. The patient looks to one side and the injection is given in the opposite corner of the eye.

The patient does not see the needle and the injection only takes a few seconds.

Some people say the injections are uncomfortable and occasionally painful. Others experience discomfort or even pain for a while afterwards. Very occasionally there are more severe reactions.

If you've been told you need injections and are worried, you can chat to people who've had injections for support and advice. Call our Helpline for more information.

Injections do not work if there is already long-

standing damage to the macula. About 10% of people with wet AMD do not respond to Lucentis® or Eylea®.

The Royal College of Ophthalmologists recommends that people with suspected wet AMD should be referred to a retinal specialist immediately and seen within a week. If treatment is needed it should be given within a week of the first appointment with the specialist.

Optometrists who suspect someone has wet AMD should refer the person directly to a retinal specialist. People should

not be referred back to their GP by the examining optometrist. This is unnecessary and causes delay.

### Laser

A few people may be offered laser treatment. A light-sensitive drug is injected into the arm. The drug travels to the eye where it is activated by a laser beam, shutting down the abnormal blood vessels.

Most people need two to five treatments. The treatment is only suitable for people with particular patterns of damage to the retina.

### Diet

Many experts recommend a diet high in antioxidants or, sometimes, a dietary supplement. There are many supplements on the market for eye health but large trials on their effectiveness are mostly lacking at the moment.

A large study in the USA, the Age-Related Eye Disease Study (AREDS) suggested that a certain formula of vitamins A, C and E plus zinc could slow the progress of AMD in some people.

A second AREDS trial looked at the effect

of adding the antioxidants lutein and zeaxanthin. It found that this further slowed the progress of AMD in some people, particularly those who had lower levels of lutein and zeaxanthin in their diets.

The AREDS investigators recommended the exclusion of vitamin A (also called beta-carotene) as it appears to increase the risk of lung cancer in people who smoke or have smoked.

Lutein and zeaxanthin are plant dyes which are found particularly in green, leafy vegetables such as kale and spinach.

The macula has high concentrations of lutein and zeaxanthin and they are thought to protect the eye. AREDS formula supplements are available in the UK. However, they are not suitable for everyone and your ophthalmologist can advise.

**Anyone taking a supplement should speak to a doctor first, especially if taking other medication.**

For further information about a healthy diet, see our 'Nutrition and eye health' leaflet.

### **New treatments**

Some new treatments for AMD are becoming available in the private sector.

Oraya therapy is a combination of Lucentis® injections plus a single, tiny dose of radiotherapy. Trials suggest that the radiation may reduce the number of injections for some people.

Telescopes, which are implanted into the eye, are becoming increasingly available. There are several types and there have been mixed reports of their success. Telescopes are not currently available on the

NHS. The CentraSight lens is an example. It is implanted into one eye and magnifies images three times, projecting the bigger image onto a healthier part of the retina.

The lens is not suitable for the majority of people. Strict screening is necessary to identify those who are most likely to benefit from it. Implanted lenses cost from £5,000 to £20,000.

### **Future treatments**

Researchers all over the world are working hard to find new and improved treatments for AMD.

Among the areas being explored are potential treatments to reduce the inflammation thought to lead to AMD, longer-acting anti-VEGF drugs and eye drops to replace injections.

To keep up-to-date with the latest news on treatments and research, visit [www.macularsociety.org/news](http://www.macularsociety.org/news)

## Low vision aids

Anyone with AMD requires good lighting and magnification to aid their vision. There are many devices that can help make everyday life easier. For further

information, see our 'Lighting' and 'Low vision aids' leaflets. Also, ask at your clinic or GP surgery for a low vision assessment.

For a list of sources used to write this leaflet, visit [www.macularsociety.org/references](http://www.macularsociety.org/references)

## How we can help

The Macular Society has a range of free services to help you share your feelings and explore ways of coping with the changes to your life.

## Helpline

Our Helpline should be your first point of call. Our specialist staff

listen, offer support and provide information and advice about all aspects of central vision loss. Calls are confidential and no question is a silly one.

**0300 3030 111**

**Monday to Friday  
9am – 5pm**

**help@  
macularsociety.org**

The Helpline can also tell you about our other services:

### **Advocacy**

If you have difficulty obtaining NHS treatment which your eye specialist says would help you, contact us for

advice and support. Our advocacy service can help you prepare letters or other documents to support your case for treatment.

### **Counselling**

Many people find it helps to talk in confidence to a professional counsellor.

### **Support groups**

We have a network of almost 380 local groups providing friendship, practical advice and a sympathetic ear to thousands of people with macular disease. To find your local group, visit **[www.macularsociety.org/groups](http://www.macularsociety.org/groups)** or call the Helpline.

## Six months free membership

If you would like to receive regular updates about living with macular conditions, treatments and medical research to find a cure then membership is for you.

Join for free today by calling 01264 350 551 or go to [www.macularsociety.org/6months](http://www.macularsociety.org/6months)

We rely on donations to fund support services and research to find a cure. To donate please go to [www.macularsociety.org/donate](http://www.macularsociety.org/donate) or call 01264 350 551.



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