

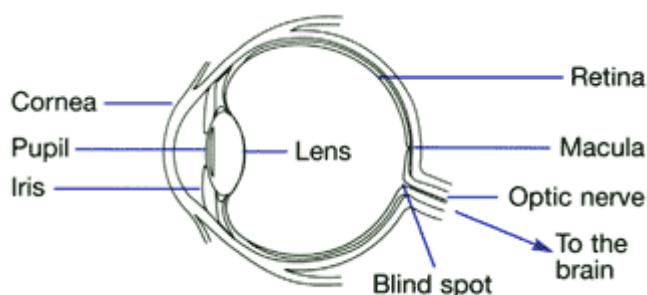
Understanding Age Related Macular Degeneration

Understanding your eye condition

The "Understanding" series of leaflets is designed to help you, your friends and family understand a little bit more about your eye condition.

Each leaflet gives an introduction to the condition, how it can affect you, the main treatment available and how to make the most of your sight. There are details of who to contact for more information at the foot of the page.

What is the macula?



The eye is shaped like a ball. The pupil, close to the front, is the opening which allows light to enter the eye. Just behind the pupil is the lens which focuses the light on the retina at the back of the eye. The retina is made up of a delicate tissue which converts the light into images, and sends them to the brain. The macula is a small area at the very centre of the retina.

The macula is very important and is responsible for what we see straight in front of us, allowing us to see fine detail for activities such as reading and writing, as well as our ability to see colour.

What is macular degeneration?

Sometimes the delicate cells of the macula become damaged and stop working, and there are many different conditions which can cause this. If it occurs later in life, it is called 'age-related macular degeneration'. Unfortunately we do not yet know why this happens.

Broadly speaking, there are two types of macular degeneration, usually referred to as 'wet' and 'dry'. This is not a description of what the eye feels like, but what the ophthalmologist (eye specialist) can see when looking at the macula. Only about 10 per cent of all people with macular degeneration have the 'wet' type (all others are affected by the 'dry' type).

'Wet' macular degeneration results in a build-up of fluid under the retina. This causes bleeding and scarring which leads to sight loss. It can progress rapidly, normally within a few months, and sometimes responds to laser treatment in the early stages.

'Dry' macular degeneration usually develops slowly, often over years, and there is as yet no treatment. Many people find that the visual cells simply cease to function, like the colours fading in an old photograph.

Macular degeneration usually involves both eyes, although one may be affected long before the other. This sometimes makes the condition difficult to notice at first because the sight in the 'good' eye is compensating for the loss of sight in the affected eye.

You cannot wear out your sight, so do not be afraid to continue to use the 'good' eye as normal.

And now the good news

Macular degeneration is not painful, and almost never leads to total blindness. It is the most common cause of poor sight in people over 60 but very rarely leads to complete sight loss because only the central vision is affected. Macular degeneration never affects vision at the outer edges of the eye. This means that almost everyone with macular degeneration will have enough side (or peripheral) vision to get around and keep their independence.

What are the symptoms?

In the early stages your central vision may be blurred or distorted, with objects looking an unusual size or shape and straight lines appearing wavy or fuzzy. This may happen quickly or develop over several months. You may be very sensitive to light or actually see lights, shapes and colours that are not there. This may cause occasional discomfort but otherwise macular degeneration is not painful.

Because macular degeneration affects the centre of the retina, people with the advanced condition will often notice a blank patch or dark spot in the centre of their sight. This makes reading, writing and recognising small objects or faces very difficult.

What should I do if I think I have macular degeneration?

If you suspect that you may have macular degeneration but there are no sudden symptoms, you should see your optometrist (optician) or family doctor (GP) who will refer you to an eye specialist. If there is a rapid, significant change in vision, then you should consult your doctor or local hospital's Accident and Emergency department immediately.

If you have macular degeneration in one eye, and you start getting sudden symptoms in your other eye, then you should go to the hospital that usually looks after you, or ask your GP to arrange an emergency appointment, as soon as possible. This will ensure that if treatment can be done you get it within a few days.

What does an eye examination involve?

Firstly there will be an assessment of your vision in both eyes. Then you will be given eye drops which enlarge your pupil so that the eye specialist can look into your eye. The drops take about 30 minutes to work although their effect may last for several hours. Your vision will become blurred for a while and your eyes will become sensitive to light, but this is nothing to worry about. Many patients with macular degeneration do not meet the visual requirements for driving and it is certainly preferable that you do not drive to the hospital for this examination. It would be helpful if someone can come with you to help you home.

What is fluorescein angiography?

In some cases your eye specialist may decide that a fluorescein angiogram will also be needed. This involves taking a rapid series of photographs of your retina with bright flashes of blue light. These photographs give an accurate map of the changes occurring in the macula and help your eye specialist to decide what is the best treatment for you.

For the angiogram you will be given a small injection of special dye in your arm which then works its way around to your eye. This is not painful but you may feel a bit sick.

There are few side effects, although some people find that they are dazzled for a while afterwards. You may also notice that the injection has left your skin with a faint yellow tinge from the fluorescein dye but this soon passes into your urine.

Your feelings

A natural reaction to being diagnosed with macular degeneration is to feel upset and angry. Other people may not understand the problem with your vision because you will not look as though you have a sight problem, and they may ask tactless questions such as 'why don't you just get better glasses?'.

Adjusting to any major change in life is usually not easy, and it may help to talk to a social worker, telephone the RNIB Helpline (see [Useful contact details](#)) or talk to someone from a local society for people with a serious sight problem. Your family doctor or social worker will be able to help you find a counsellor if you feel that would be helpful.

The Macular Disease Society has local groups. Talking about and sharing experiences can be a good way or learning to cope with feelings and problems that other people with the same condition may have come across before.

Can I be helped to see better?

Don't be discouraged - you can be helped to see many of the things you used to by making the best use of your remaining sight. With macular degeneration, this means learning to use your side (or peripheral) vision. Low vision services can help you find the best magnifiers for you. They can also give advice and training on the many ways, often quite simple, in which you can make the most of your remaining sight. Ask your eye specialist, optometrist (optician), GP, social worker or local society for people with a serious sight problem about how to get referred to a low vision service near you. For more information about how to make the most of your eyesight, ask for RNIB's 'See for yourself' series of leaflets.

Can macular degeneration be treated by laser?

If you have the 'wet' type of macular degeneration, certain abnormalities on the macula can sometimes be treated by laser. This is usually done as an outpatient, and although it may cause some discomfort, it is not painful. You will put your chin on a headrest and a special lens will be placed on your eye which will focus the laser onto the part of your retina which needs treatment.

Unfortunately, with most people the areas of degeneration are in the middle of the macula, at its focal point. This means that treatment cannot be given because scars produced by the laser would make central vision worse rather than better.

Laser treatment is useful for about 10 per cent of people with 'wet' type macular degeneration, and only when people have reported their symptoms early. If successful, it can prevent things getting worse, or at least delay the progression of the problem, and sometimes bring back sight that is already lost. Unfortunately, 'dry' degeneration cannot be treated by laser.

What research is going on?

There is a great deal of research that is looking into the causes of macular degeneration and how it can be treated. With 'dry' degeneration there have been claims that certain types of medical therapy can halt the condition, but this remains uncertain.

Useful contact details

Royal National Institute for the Blind
224 Great Portland Street
London W1W 5AA
Telephone: 0845 766 9999

The Macular Disease Society
Darwin House
13A Bridge Street
Andover
Hampshire
SP10 1BE
Telephone Helpline: 0845 241 2041

Royal College of Ophthalmologists
17 Cornwall Terrace
London NW1 4QW
Telephone: 020 7935 0702

All these leaflets are available in print, Braille and tape.

For a copy of any of these leaflets, please contact RNIB Customer Services on 0845 702 3153 (all calls charged at local rates).

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