Age-Related Macular Degeneration

Factsheet

What is the macula?

Imagine that your eye is like a camera. There is a lens and an aperture (an opening) at the front, which both adjust to bring objects into focus on the retina at the back of your eye. The retina is made up of a delicate tissue that is sensitive to light, rather like the film in a camera. The macula is found at the centre of the retina where the incoming rays of light are focused. The macula is very important and is responsible for:

· what we see straight in front of us

· the vision needed for detailed activities such as reading and writing

· our ability to appreciate colour.

What is macular degeneration?

Sometimes the delicate cells of the macula become damaged and stop working. We do not know why this is, although it tends to happen as people get older. This is called age-related macular degeneration. Because macular degeneration is an age-related process it usually involves both eyes, although they may not be affected at the same time. With many people the visual cells simply cease to function, like the colours fading in an old photograph - this is known as 'dry' degeneration. Sometimes there is scarring of the macula caused by leaking blood vessels and this is called disciform maculopathy. Children and young people can also suffer from an inherited form of macular degeneration called macular dystrophy. Sometimes several members of a family will suffer from this, and if this is the case in your family it is very important that you have your eyes checked regularly.

And now the good news

Macular degeneration is not painful, and never leads to total blindness. It is the most common cause of poor sight in people over 60 but never leads to complete sight loss because it is only the central vision that 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 vision to get around and keep their independence.

What are the symptoms?

The Eyecare Trust is a registered charity that exists to promote awareness of all aspects of eye health. For more information call our public information line on 0845 129 5001 or log on to www.eyecaretrust.org.uk

The Eyecare Trust

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In the early stages your central vision may be blurred or distorted, with things looking an unusual size or shape. This may happen quickly or develop over several months. You may be very sensitive to light or actually see lights that are not there. This may cause some discomfort occasionally, but otherwise macular degeneration is not painful. The macula enables you to see fine detail and people with the advanced condition will often notice a blank patch or dark spot in the centre of their sight. This makes activities like 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 acute symptoms you should see your doctor or optometrist (optician) who will refer you to an eye specialist. If you have acute symptoms then you should consult your doctor or local casualty department immediately. If macular degeneration has already been diagnosed in one of your eyes, and your other eye is getting acute symptoms, then you should go to the hospital that usually looks after you, or your local casualty department, as soon as possible.

What does an 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 your eye specialist can look into your eye. The drops take about 20 minutes to work although their effect may last for several hours. Your vision will become blurred for a while and your eyes will become very sensitive to light, but this is nothing to worry about.

What is fluorescein angiography?

In some cases your eye specialist may decide that a fluorescein angiogram will also be needed. This involves taking a series of colour photographs of your retina with bright flashes of 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. A series of rapid pictures are then taken with a blue light over the next few minutes. 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

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skin with a faint yellow tinge from the fluorescein dye but this soon passes as it is excreted in your urine.

Can I be helped to see better?

Don't be discouraged - you can be helped to see better. With disciform degeneration laser treatment can help some people if the condition is diagnosed early enough. There are also a variety of optical aids which make use of the parts of the retina that are not affected. These range from brighter reading lights and simple magnifying glasses to more sophisticated equipment. Ask your doctor to refer you to the hospital low vision clinic.

What does laser treatment involve?

If you have disciform 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, is not painful. You will sit at a slit lamp and special contact lens are put into the eye to help focus the laser onto the macula. 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 the 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 disciform degeneration, and this always where people have reported their symptoms early. If successful it can prevent things getting worse, and sometimes bring back sight that is already lost. '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. You can find out more from the:

Macular Disease Society

PO Box 247

Haywards Heath

West Sussex

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Telephone 0990-143 573

For further information about RNIB services please contact us at:

Royal National Institute for the Blind

105 Judd Street

London

WC1H 9NE

Telephone 0345-766 9999

Information provided by the Royal College of Ophthalmologists and the Royal National Institute for the Blind.

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