What is Wet Age related Macular Degeneration?

Wet Age Related Macular Degeneration (ARMD) is a medical condition which causes damage to the centre of your vision. Without treatment there is roughly a 60% chance of significant visual loss in the affected eye within two years. There is approximately 6%-10% chance of the other eye being affected with wet age related macular degeneration each year.

It is not known why some people get it and others don’t but it is more common the older you are and smokers are at particularly high risk of visual loss. There is a genetic predisposition but this does not account for all cases. A diet high in green leafy vegetables (kale, broccoli etc) is advisable.

What is going wrong with my eye?

An abnormal clump of blood vessels has started to grow in the wrong place forming a lump underneath the retina. The retina is a bit like wallpaper lining the inside of the eyeball and is essential for normal vision. It is made up of light sensitive cells which are very delicate and easily damaged. The clump of abnormal blood vessels leak under the retina, which sometimes creates a blister of fluid. This causes the early symptoms of distortion of straight lines when you look directly at them. Untreated the leakage gets worse and the blood vessels start to bleed and form a lump of scar tissue, or sometimes the blister bursts. Both contribute to permanent loss of central vision.

How might my vision be affected?

In the early stages you may notice that straight lines look bent or distorted. In the later stages there may be a black patch over the centre of your vision which you cannot see through.

The condition will only affect the centre of your vision but this is the important part of your vision for reading, watching TV, recognising faces and doing any sort of detailed visual task like knitting.
Benefit of Intravitreal Injections for ARMD

The eye specialist will recommend that you have either Lucentis® (ranibizumab) or Eylea (aflibercept) injections into the eyeball to treat the abnormal clump of blood vessels. This is the current standard of care treatment, however, if your eye does not meet NICE UK criteria for treatment, the eye specialist might recommend another intravitreal injection called Avastin® (bevacizumab). More information regarding this will be provided by your ophthalmologist if this is required.

These injections are all very effective at blocking the chemical signals which can cause the clump of abnormal blood vessels behind the retina to grow and leak. However, Lucentis, Avastin and Eylea do not work in every patient.

Around 7 out of 10 patients maintain the vision which they had when they started treatment, over a two year period. A third of patients may improve vision quite dramatically following treatment (they see three or more lines on the eye test chart).

Do I need to do anything before the injection?

No special preparation is required by you prior to the injection such as fasting (you may want to have a light snack) but driving is not advised.

How is the intravitreal injection given?

This is done in a clinical procedure room or operating theatre. Your eye will be numbed with a drop of anaesthetic or you will be asked to lie down on a trolley and iodine solution is put on the surface of your eye to kill off any bacteria. Antibiotic eye drops are also used to keep the eye as sterile as possible before the injection. In case of known/presumed iodine allergy or sensitivity, a suitable alternative which is chlorhexidine solution is used although this seems to be less effective at sterilising the eye than iodine.

A sterile drape is stuck over the eye and a clip is used to keep your eyelids open during the injection. A very thin needle is used to minimise discomfort. The injection passes through the white
bit of the eye so you shouldn’t see the needle coming towards you. Although you can feel some sensation this is similar to a blood test in terms of discomfort. After the injection you will be seen by the nurse who will check that you are well enough to go home. You may have your eye (intraocular) pressure checked if necessary.

**Are there any side effects or risks of the injection?**

**Common side effects** (more or less than 1 in 10)
These include mild blurring of vision for a day or so after the injection.

The eye may feel gritty and sore for a day or so after the injection.

Often a small blood vessel on the outside surface of the eye is burst during the injection. This makes the white bit of the eye look bright red but it is not painful and gets better within a week or so without any treatment.

Occasionally following the injection there may be transient air bubbles inside the eye which look like small black circles. These are nothing to worry about and will disperse, on their own, within a couple of days.

There is also a small chance of increased blood pressure, however the nurses will check this at each injection visit.

**Other side effects**
Other side effects are rare.

Infection which occurs at a rate of less than 1 per 1000 injections. Infection inside the eye often leads to blindness so we take extensive precautions to avoid this happening. Infection causes a painful, red eye with rapid reduction in vision and usually occurs two or more days after the injection. Urgent antibiotic injection into the eye may prevent permanent loss of vision if given within a few hours.
Rarer side effects include
The formation of cataract or retinal detachment. Again, if you notice a sudden deterioration in your vision then contact us on the number above or come to the eye clinic.

If you are worried that you may have an infection in the eye following an injection you should ring 01493 452594 or 01493 452452 during office hours to arrange to be seen the same day by an ophthalmologist.

To be seen out of hours or during the weekend you will need to attend the Accident and Emergency (A&E) department (telephone 01493 452200) who will contact the on call ophthalmologist for advice. You may need to travel to the Norfolk and Norwich University Hospital who cover our ophthalmology on call at weekends. Please present this leaflet to the A&E nurse or receptionist for their information.

How many injections will I need?
Unfortunately the injections seem to wear off after a few weeks to months and therefore often need to be repeated, maybe indefinitely.

Current practice is to give one injection every month for the first three months at the start of treatment.

With Lucentis, more injections are given if there is still evidence of leaking blood vessels at the back of the eye. Most patients will require eight injections in the first year of treatment and four in the second year. Some patients will stabilise and not need further injections whilst others will still need an injection every month, even after two years.

With Eylea, which has equivalent results, most patients are expected to require seven to eight injections in the first year of treatment and three to four injections in the second year of treatment.

For treatment required after 24 months, this will depend on your eye(s) response to the injections in the previous years and will take into account current research evidence where possible.
Dry Age Related Macular Degeneration

Almost all patients with wet ARMD will also have dry ARMD. In dry ARMD the retina is worn out and disappears as part of an aging process. We currently do not have a good treatment for this although research drugs are being investigated. It can cause letters to disappear or jumbling of words. It progresses much more slowly than wet ARMD and is often very asymmetrical meaning good vision in at least one eye is the norm. Like wet ARMD it will only ever affect your central vision so with the intact peripheral vision people can maintain their independence and continue to live at their own homes if they wish to even with the most advanced disease.

Low Vision Clinic

If you are struggling with your vision despite treatment then we can refer you to the low vision clinic for advice about magnifying glasses, mini telescopes and computer aids.

Many people find audiobooks, podcasts and tablet computers on which text can be enlarged or viewed in reverse contrast to be very helpful.

We also have an Eye Clinic Liaison Officer (ECLO) available in the clinic if you wish to discuss any issues which you may be experiencing as part of your eye condition.

Charles Bonnet Syndrome

Occasionally people with sight difficulties, and people who have lost their sight later in life, can experience this syndrome which is described as experiencing visual hallucinations. However, it can affect any age group often appearing after a period of worsening sight. The visual disturbances, often referred to as visual hallucinations, may manifest themselves as anything from simple patterns of straight lines to detailed pictures/images or even seeing people in the room who are not really there. Coloured flowers patterns or bricks are commonly reported.

It is not known what causes this syndrome but it usually stops after a period of a year to 18 months. Some people find it
quite upsetting to have these visual hallucinations. However it is important to remember that they are due to failing eyesight and not because of mental health problems.

If you have any questions then why not write them down to ask the doctor or nurse when you see them.

**Sight Impairment Registration or Severe Sight Impairment Registration**

This is available only if the vision is poor in both eyes. It may entitle you to additional support from the sensory needs team etc. If you think you may be eligible then please ask at your next clinic visit.

**What else should I be doing?**

If you have lost vision in one eye from ARMD then there may be some benefit in taking specific vitamins to reduce the risk of visual loss in the second eye such as Ocuvite PreserVision, ICAPS or equivalent (check suitability if you are a smoker or recent ex-smoker).

Two large studies (Areds2) have shown that beta-carotene, a carotenoid antioxidant, increased the risk of lung cancer in smokers. Therefore, both current smokers and those people who have habitually smoked within the past 20 years, must not take supplements with beta-carotene. There are supplements available which are designed specifically for smokers for example VisiVite Smokers formula.


Further useful information regarding ARMD can be found by visiting the macular disease society website at www.maculardisease.org or by contacting them at:

PO Box 1870 Andover,
SP10 9AD
Registered Charity No. 1001198
Tel: 01264 350551 or Fax: 01264 350558
Feedback
We want your visit to be as comfortable as possible. Please talk to the person in charge if you have any concerns. If the ward/department staff are unable to resolve your concern, please ask for our Patient Advice and Liaison (PALS) information. Please be assured that raising a concern will not impact on your care. Before you leave the hospital you will be asked to complete a Friends and Family Test feedback card. Providing your feedback is vital in helping to transform NHS services and to support patient choice.

**Trust Values**

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<th>Courtesy and respect</th>
<th>Responsive communication</th>
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<tr>
<td>A welcoming and positive attitude</td>
<td>Listen to people &amp; answer their questions</td>
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<tr>
<td>Polite, friendly and interested in people</td>
<td>Keep people clearly informed</td>
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<tr>
<td>Value and respect people as individuals</td>
<td>Involve people</td>
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<tr>
<td>So people feel <strong>welcome</strong></td>
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<th>Attentively kind and helpful</th>
<th>Effective and professional</th>
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<td>Look out for dignity, privacy &amp; humanity</td>
<td>Safe, knowledgeable and reassuring</td>
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<tr>
<td>Attentive, responsive &amp; take time to help</td>
<td>Effective care / services from joined up teams</td>
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<td>Visible presence of staff to provide care</td>
<td>Organised and timely, looking to improve</td>
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<tr>
<td>So people feel <strong>cared for</strong></td>
<td>So people feel <strong>safe</strong></td>
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The hospital can arrange for an interpreter or person to sign to assist you in communicating effectively with staff during your stay. Please let us know.

For a large print version of this leaflet, contact PALS 01493 453240