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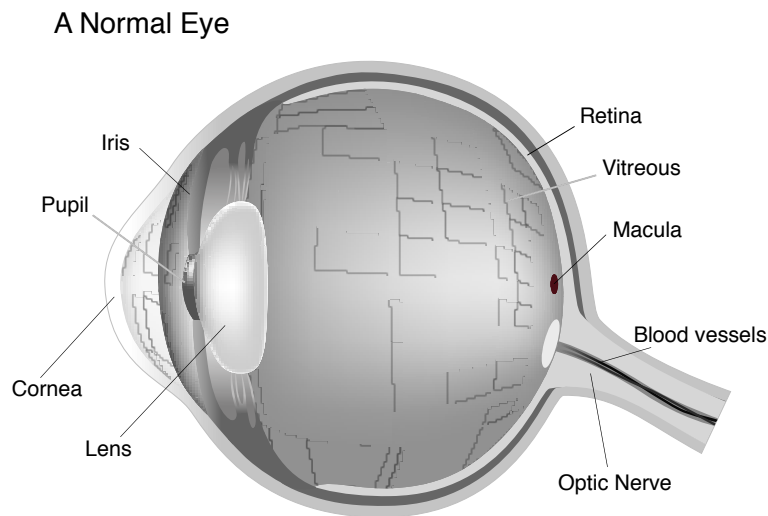
Consultant Ophthalmic and Retinal Surgeon

Patient Information: Epiretinal Membranes

What is an epiretinal membrane?

The retina lines the back of the eye. It functions a bit like the film in the back of a camera, in that it absorbs light to form an image of the outside world. The most important part of the retina is the macula – this is the part that the light comes to a focus on. It gives the central vision that is important for fine visual tasks such as reading and driving.

An epiretinal membrane occurs when a very thin layer of scar tissue forms on the surface of the retina. When an epiretinal membrane forms over the macula, it may contract and crumple up the macula, resulting in distorted and/or blurred vision.



What causes epiretinal membranes?

In most cases the development of an epiretinal membrane appears to be related to normal ageing changes inside the eye. In some cases it can be related to other conditions such as diabetes, blockage of blood vessels or following retinal surgery. They are quite common and affect up to 8% of people in their later years.

What are the symptoms of an epiretinal membrane?

In many cases, the discovery of an epiretinal membrane is by chance at a routine optician eye examination and the vision may not be affected. They are best seen using a special laser scan of the back of the eye called optical coherence tomography (OCT).

Epiretinal membranes may be quite stable and not have much effect on vision. However, some epiretinal membranes get progressively worse, causing objects to become blurred or distortion. Patient often describe a smudge or film over their central vision.

Do I need surgery for epiretinal membrane?

Surgery may or may not be necessary, depending on how severe the epiretinal membrane is, and what impact it is having on your vision and everyday life.

If an epiretinal membrane affects vision, the only way to treat it is to remove the membrane surgically. Some patients decide not to have the operation and accept the distorted central vision in the affected eye. This is a reasonable choice if the vision in the other eye is good. However, if the distortion of vision is troublesome, you may decide to go ahead with surgery.

What does surgery involve?

Surgery involves an operation called a vitrectomy and epiretinal membrane peel. Tiny instruments are used to first remove the jelly-like substance (the vitreous) that normally fills the centre of the eye, and then to peel the membrane off the back of the eye.

Surgery can be undertaken under a local anaesthetic (awake but with an eye injection to numb the eye), or under general anaesthetic (asleep). Surgery usually takes less than an hour.

The removal of the vitreous inside the eye does not cause harm. It is replaced by the natural fluid produced inside the eye (the vitreous is anyway about 99% fluid).

What are the benefits of epiretinal membrane surgery?

After removal of the epiretinal membrane the vision is typically worse for a week or two. Thereafter vision should start to improve, but it can take many months to get the full benefit of surgery. The operation is successful in reducing the visual distortion in about 70-80% of patients, but vision is seldom perfect, in that patients often have some mild residual symptoms.

What are the risks of epiretinal membrane surgery?

Epiretinal membrane surgery is relatively safe, and Professor Jackson will only present it as an option if the benefits are likely to outweigh the risks. However, all eye operations carry some risk, including the risk of further surgery and loss of vision.

Surgery to remove an epiretinal membrane speeds up the onset of cataract, where the lens inside your eye becomes cloudy. Often, an early cataract is removed at the same time as the epiretinal membrane to avoid cataract surgery in the future. Further information on cataract surgery is available on request in a separate information leaflet. If you have already had cataract surgery then epiretinal membrane surgery will not cause a cataract to recur.

Eye pressure is often a bit high or low for a few days or weeks after surgery. Low pressure usually settles quickly without treatment. High eye pressure may require short-term eye drops to lower the pressure, but it usually settles. Rarely high pressure can persist and damage vision, but usually high and low pressure are transient, of little concern and do not affect the final outcome.

In about 1 in 20 operations, a gas bubble is deliberately left in the eye, usually because of a break or weak spot in the retina. This disappears on its own after a few weeks. If this occurs you may need to position your head for a few days after surgery and you cannot fly until the gas bubble goes.

There is an approximately 1 in 50 chance of requiring further retinal surgery to deal with recurrent epiretinal membrane or other complications such as retinal detachment.

There is an approximately 2-5% chance of reduced vision after epiretinal membrane surgery. The worst loss of vision is usually associated with serious infection or bleeding inside the eye. Thankfully, these events are very rare (about 1 in 500 cases), but in the most severe cases they could lead to your eye becoming totally blind, or extremely rarely, loss of the eye.

How do I prepare for surgery?

If you take medications to thin your blood such as warfarin, clopidogrel, aspirin or rivaroxaban please tell Professor Jackson in advance of surgery. Sometimes (though not usually) you may need to stop these medications, or reduce the dose, before your eye operation.

You should continue all other medications as normal, including on the day of surgery. If you take regular eye drops these should usually continue before and after surgery, including on the day of surgery, but please check with Professor Jackson. Avoid eye makeup on the day of surgery.

If you are having the operation under local anaesthetic you can eat and drink normally, but please avoid alcohol and heavy foods. If you are having a general anaesthetic *you need to stop eating and drinking 6 hours before surgery, with the exception of still water which you can drink until 2 hours before surgery.*

How long will I be in hospital?

Most operations occur in the early evening. The operation takes about an hour, but the whole process takes about 3-4 hours. Before surgery you will be checked-in by the nursing team, including some health checks such as blood pressure. They will instill about four sets of eye drops to dilate your pupils. After surgery the nursing team will give you time to recover, and ensure you are fit to go home.

Assuming your vision is sufficient in the unoperated eye, you can head home by yourself in a taxi, but ideally you should ask someone to collect you after surgery and escort you home.

Assuming your vision is sufficient in the unoperated eye, and you had a local anaesthetic, you can head home by yourself in a taxi, but ideally you should ask someone to collect you after surgery and escort you home. If you have had sedation or a general anaesthetic you will need someone to escort you home and you should have someone remain with you for 24 hours.

Patients are typically seen a day or two after surgery, and then at about 1 week, and 1, 3 and 6 months after that.

What happens during surgery?

Professor Jackson will see you briefly before surgery. If you have any questions or concerns, please raise them. He will draw a small mark on your forehead above the eye that is undergoing surgery, to confirm the correct side.

If you are having a local anaesthetic, the anaesthetist, or sometimes Professor Jackson, will give you the local anaesthetic injection around your eye before surgery commences. This stings for a few seconds as the anaesthetic goes in, but thereafter your eye should be comfortable. Professor Jackson will usually warn you if anything uncomfortable is to be expected, as there are a few points in the operation when you may briefly feel some discomfort. If your eye is painful, let Professor Jackson know, as he can easily top-up the anaesthetic.

Professor Jackson will clean around your eye with iodine (if you have an iodine allergy let Professor Jackson know in advance of surgery). Don't worry if you can feel this, as the anaesthetic aims to numb the eye more than the skin around it. For surgery you will lie flat on your back with a sterile cloth draped over your face. It can feel a bit claustrophobic as the drape is initially placed over your face, but Professor

Jackson will lift it off your face as much as possible. There will be oxygen pumped under the drape so even if it feels a bit stuffy, there will be plenty of air to breath.

As the eye is anaesthetised you do not need to worry keeping your eye still or blinking during surgery. However, you should try and keep you head and gaze still during the operation and try not to speak, unless you need to raise a concern. If you feel a cough or sneeze coming, let Professor Jackson know.

You will often feel water running down the side of your face and your hair may get wet during the operation. You will hear what is going on in theatre and Professor Jackson will speak to you at certain points in the operation. You may see light, but you will not see the instruments or the operation itself.

How do I care for my eye the morning after surgery?

You will have a plastic shield covering the eye, and a soft pad underneath that. You should remove both the morning after surgery. Discard the soft pad but keep the plastic shield and tape it onto the eye at night for a week, to avoid banging your eye in your sleep. Orient/position the shield as it was the night after surgery. After the first night you will not need anything covering the eye by day.

When you remove the pad and shield you may find that your eyelids are stuck together with dried bloody tears. This is normal, as are a few bloody tears escaping from under the eye pad (for this reason sleep on a pillow that you don't mind getting slightly stained with blood). If needed, you can use some cooled boiled water and clean tissue or gauze to moisten the lids to help prise them gently apart.

Following surgery you will be given eye drops to use in the operated eye for a few weeks. These will help the eye recover from surgery and reduce the risk of infection. These commence the morning after surgery, after removing the eye pad.

Most commonly, Professor Jackson prescribes Maxitrol eye drops four times daily for one week after surgery, then reducing to three times daily for one week, then twice daily for one week, then stop; and Cyclopentolate (also called Mydrilate) three times daily for 10 days.

What will my eye and vision be like immediately after surgery?

It is normal for your eye to have some bruising following surgery. This bruising can affect the skin around the eye, but also the white of your eye might be bright red from blood under the skin of your eye. Like all bruises, this will gradually change colour and fade over the next few days.

Your eyelid may be a bit droopy from the anaesthetic. Your eye may also be a bit tender and gritty. If so, you can take your usual painkillers, such as paracetamol. Expect your vision to be worse than usual for a week or two after surgery. You may also notice some double vision. This should settle over a few days.

If you experience any of the following you should contact Professor Jackson without delay on 020 7060 1968 (NB. Out of office hours, the voice message will give an emergency mobile phone number for you to call):

- moderate to severe, or worsening pain
- increased redness or feelings of pressure in or around the eye
- rapid deterioration of vision

If you cannot contact Professor Jackson for any reason you should attend a walk-in eye emergency clinic, such as Moorfields Eye Hospital or the Western Eye Hospital.

Can I resume normal activities after surgery?

You can do most normal daily activities although you should avoid unhygienic environments and swimming for two weeks. If you want to swim thereafter, wear swimming goggles or keep your eye out of the water for a month after surgery. You can shower and bath as usual, but avoid water going into your eye for a month. Avoid very vigorous exercise and intense straining for two weeks, but gentle exercise is allowed. Look out for injury to the eye. Also be sure to take extra care when carrying out everyday tasks, such as using steps or pouring hot drinks, as you may find it difficult to judge distances until the vision recovers. Do not drive until you are told it is safe to do so.

Most people will need about two weeks off work after surgery. The amount of time off work will depend on the kind of work you do and the kind of surgery that is done. If you want to return to work sooner it is unlikely to harm your eye, but you may not feel well enough to work for about two weeks.

If your surgery required you to have a gas bubble in your eye then it is important that you do not fly or go up high mountains, as gas expands at altitude and this increases the pressure inside the eye above safe limits. If you need a general anaesthetic you should inform your anaesthetist that you have gas in your eye, as certain anaesthetic gases need to be avoided.

Any further questions?

If you have any further questions regarding epiretinal membrane and the benefits and risks of treatment please do not hesitate to contact our office on 020 7060 1968.

Disclaimer

Whilst every effort has been made to ensure that the information in this leaflet is accurate and up-to-date, we cannot guarantee its completeness or correctness. It is not designed as a substitute for professional healthcare advice from a doctor.