Moorfields Eye Hospital NHS Foundation Trust

Patient Information

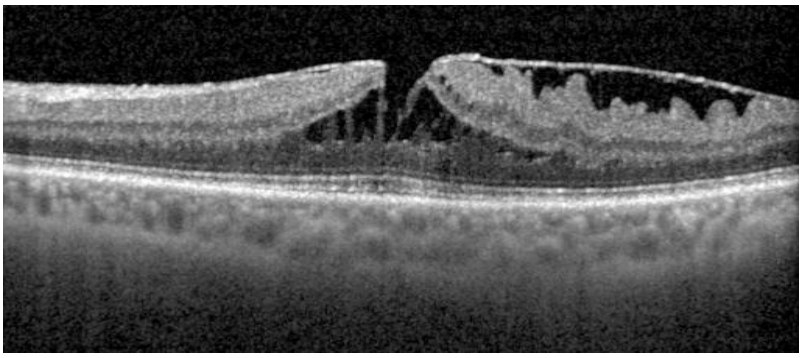
Epiretinal membrane

Your guide to Epiretinal Membrane Surgery

This leaflet gives you information about an epiretinal membrane and the surgery to treat it. It should answer some of your questions. You might want to talk about this information with a family member or carer.

If you decide to have surgery, we will ask you to sign a consent form. It's important that you understand everything in this leaflet before you agree to go ahead. If you have any questions, please write them down so you remember to ask one of our staff.

What is an epiretinal membrane?



Imagine your eye is like a camera. The **retina** is like the photographic film at the back of the camera. It's a very thin layer of tissue that picks up images and sends them to your brain.

At the very centre of the retina is the **macula**. This is a special area we use for seeing fine detail, like when you're reading or recognising faces.

An epiretinal membrane (ERM) is a thin layer of fibrous tissue that grows on the surface of the macula. It's sometimes called a 'macular pucker' or 'cellophane

maculopathy'. If this fibrous tissue tightens, it can wrinkle the macula. This can make your central vision distorted or blurred.

Epiretinal membranes are common, and often they cause no symptoms at all, if this is the case, nothing needs to be done for them.

Left untreated, an ERM will not cause total blindness. It only affects your central vision.

What causes an epiretinal membrane?

Most epiretinal membranes develop for no clear reason. They often appear as part of the eye's natural ageing process. This often happens when the jelly inside your eye (called the vitreous) pulls away from the retina. This is more common in people over 50.

Sometimes, an ERM can form after:

- Eye surgery
- An eye injury or trauma
- Inflammation (swelling) inside the eye
- Other eye conditions, such as diabetic retinopathy or a retinal vein blockage.

How might an epiretinal membrane affect my vision?

Sometimes, an epiretinal membrane might not affect your vision at all. But if the fibrous tissue tightens, it can cause:

- **Distorted or wavy vision:** Straight lines might look bent or crooked. This is called metamorphopsia.
- **Blurred central vision:** Making it harder to read or see small details.
- **Difficulty reading:** Especially small print.
- **Double vision in one eye.**
- **A grey or cloudy patch** in the middle of your vision.

You might only notice symptoms when you cover one eye, for example, during an eye test.

How is an epiretinal membrane treated?

The only way to treat an epiretinal membrane is with an operation. **Eye drops, lasers, or glasses will not remove an ERM.**

Your eye doctor will help you decide if surgery is right for you. If your symptoms are mild and not bothering your daily life, you might not need surgery. Some people choose not to have surgery and learn to live with the distorted vision in one eye, especially if their other eye has good vision. There is no 'right' or 'wrong' choice; it depends on your individual needs and how much the ERM affects you.

What does the operation involve?

The surgery to remove an epiretinal membrane is called a **vitrectomy**. It's done by a specialist eye surgeon.

The procedure usually takes between 45 to 60 minutes. Most often, we do it under **local anaesthetic**. This means your eye is numbed, and you stay awake but comfortable. Sometimes, we may use a **general anaesthetic**, where you are asleep. Your surgeon will discuss the best option for you.

During the vitrectomy:

1. **Tiny incisions:** The surgeon makes three very small cuts (less than 1mm) in the white part of your eye. These usually don't need stitches.
2. **Removing the vitreous gel:** A tiny instrument is used to remove the jelly-like substance (vitreous gel) from the middle of your eye. This is replaced with a clear saline solution during the surgery. The vitreous gel does not grow back, but removing it does not harm your eye.
3. **Peeling the membrane:** The surgeon then uses very fine instruments to carefully peel away the epiretinal membrane from the surface of your macula. Sometimes, a special dye is used to help see the membrane more clearly.
4. **Gas or air bubble (sometimes):** At the end of the surgery, a gas or air bubble might be put into your eye. This helps flatten the retina and supports healing. If you have a gas bubble, you may need to keep your head in a certain position after surgery (see 'After your surgery').
5. **During the vitrectomy procedure** the medicine Triamcinolone Acetonide *may* be used as an aid to visualise the vitreous. This medicine is being used as an “unlicensed product” but has been used at Moorfields for this purpose for decades. For more information on unlicensed medicines,

please visit https://www.moorfields.nhs.uk/for-patients/pharmacy/unlicensed-medicines or discuss with your clinician if you have any questions.

What are the benefits of surgery?

The main aim of surgery is to improve or stop the distortion in your central vision.

- **Improvement in distorted vision:** About 70% to 80% of people notice a significant reduction in visual distortion.
- **Improved central vision:** Many patients see an improvement in how clearly they can see central details. However, it's important to know that your vision will not become perfectly normal again, especially if the ERM was very severe or present for a long time.
- **Stabilisation of vision:** Surgery can prevent your vision from getting worse due to the ERM.

Vision improvement can be slow. It may take several months to see the full benefit, and sometimes up to a year.

What are the risks of surgery?

All surgery carries some risks, but complications are rare with epiretinal membrane surgery. Your surgeon will explain these risks fully.

Common and less serious risks:

- **Temporary discomfort and redness:** Your eye might feel gritty, watery, and look red for a few days or weeks. Paracetamol can help with any mild pain.
- **Bruising around the eye:** This is common and will go away quickly.
- **Temporary blurred vision:** Your vision will be very blurry straight after surgery.
- **Increased eye pressure:** This is usually temporary and often controlled with eye drops. Rarely, some people may need ongoing eye drops or further treatment to manage it.
- **Cataract formation:** Vitrectomy surgery almost always speeds up the development of a cataract (clouding of your eye's natural lens). This usually happens within 6 to 12 months. You may need cataract surgery in the future. Sometimes, your surgeon might suggest removing the cataract at the same time as your ERM surgery.

More serious (but rare) risks:

- **Retinal detachment:** This is a serious problem where the retina comes away from the back of the eye. It can lead to severe vision loss if not treated quickly. The risk is low, about 1 to 2 in 100 people. If this happens, you would need another operation to fix it.
- **Infection (endophthalmitis):** A very rare (about 1 in 2,000 cases) but serious complication that can cause severe vision loss. We give you antibiotic drops to reduce this risk.
- **Bleeding inside the eye:** This is rare.
- **No improvement or worsening vision:** In some cases, vision may not improve, or it could even get worse, especially if the macula was severely damaged before surgery. The risk of vision being worse than before surgery is low (less than 5 in 100 people), the risk of there being no noticeable change is between 10-15%
- **The membrane returning:** In about 5% of people, the ERM can grow back. This may require further surgery.
- **Loss of the eye:** This is extremely rare.

Before your surgery

- **Pre-operative assessment:** You will have a full eye and general health check to make sure you are ready for surgery.
- **Medications:** Tell your surgeon about all medicines you are taking, especially blood thinners. You may need to stop some of them for a short time before surgery.
- **Fasting:** If you have a general anaesthetic or sedation, you will get clear instructions about when to stop eating and drinking.
- **Travel arrangements:** You will not be able to drive yourself home after surgery, so please arrange for someone to collect you. If you are having sedation or general anaesthetic you must have someone accompany you home and stay with you overnight.

After your surgery: Important things to know

- **Eye patch/shield:** You will have a patch or shield over your eye to protect it. This is usually removed the day after surgery. You should replace the plastic shield on your eye each night for 1 week following surgery.

- **Eye drops:** You will get a prescription for eye drops (antibiotics and anti-inflammatory drops). It's very important to use these exactly as prescribed to prevent infection and help with healing.
- **Head positioning (if you have a gas bubble):** If a gas or air bubble was put in your eye, you will get special instructions about head positioning (for example, lying on your side or looking down). This helps the bubble work best for your eye. This is usually needed for 5 to 10 days.
- **Flying and high altitudes (if you have a gas bubble):** If you have a gas bubble, you **must not fly or travel to high altitudes** (e.g., mountains) until the bubble has gone. This is because changes in air pressure can make the bubble expand, which can cause severe pain and damage to your eye. Your surgeon will tell you when it is safe to fly again (this can be from 2 to 12 weeks, depending on the type of gas used).
- **Types of gases used:**

  C3F8 – Long acting gas that can last up to 12 weeks

  SF6 – shorter acting gas that can last up to 4 weeks.

  C2F6- Can last in the eye up to 8 weeks.

  Air – can stay in the eye up to 2 weeks.

- **Activity:**
  - Avoid rubbing or pressing your eye.
  - Avoid strenuous activities.
  - You can usually return to light daily activities within a few days.
- **Work:** Most people need at least two weeks off work. This depends on the type of work you do. Discuss this with your surgeon.
- **Driving:** Do not drive until your vision has recovered enough and your surgeon says it is safe.
- **Follow-up appointments:** You will have follow up appointments at Moorfields to check your healing and vision.

When to contact Moorfields immediately

Call us straight away or go to your nearest Accident & Emergency department if you experience any of the following after surgery:

- **Severe or worsening eye pain** that isn't relieved by paracetamol.
- **Sudden decrease in vision.**

- **New flashes of light or an increase in floaters** (small spots or squiggly lines in your vision).
- **A new dark shadow or "curtain" coming over your vision.**
- **Pus or increasing discharge** from the eye.
- **Increasing redness or swelling** of the eye.

You can contact us on **Moorfields Direct Nurse Helpline** on **0207** 566 2345. The helpline is staffed by knowledgeable ophthalmic nurses from:

- 9am to 9pm, Monday to Friday.
- 9am to 5pm on Saturdays.

Or the virtual emergency platform on https://www.moorfields.nhs.uk/ae/emergency-care-video-consultation#call

Or attend Moorfields Eye Hospital A&E, which is open 24 hours a day, seven days a week, at City Road, London EC1V 2PD.

What to expect in the long term

- **Vision recovery is gradual:** It takes time for your vision to settle. You may see ongoing improvement for many months.
- **Residual distortion:** Some people may still notice a small amount of distortion even after successful surgery.
- **Cataract development:** It's very likely you will develop a cataract in the operated eye, if you haven't already had cataract surgery.
- **Glasses prescription:** Your glasses prescription may change after surgery. We usually recommend waiting about 3 months before getting new glasses.
- **Regular eye checks:** Continue to have regular eye checks as advised by your ophthalmologist.

Important note:

This leaflet provides general information. It's not a substitute for a detailed discussion with your eye doctor. Please ask any questions or share any concerns you have before deciding on your treatment.

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Phone: 020 7253 3411
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Moorfields Direct telephone helpline

Phone: 020 7566 2345
Monday-Friday, 8.30am-9pm
Saturday, 9am-5pm
Information and advice on eye conditions and treatments from experienced ophthalmic-trained nurses.

Patient advice and liaison service (PALS)

Phone: 020 7566 2324 or 020 7566 2325
Email: moorfields.pals@nhs.net
Opening hours: Monday to Friday, except bank holidays
Moorfields' PALS team provides confidential advice and support to help you with any concerns you may have about the care we provide, guiding you through the different services available at Moorfields. The PALS team can also advise you on how to make a complaint.

Your right to treatment within 18 weeks

Under the NHS constitution, all patients have the right to begin consultant-led treatment within 18 weeks of being referred by their GP. Moorfields is committed to fulfilling this right. For more information about your rights and responsibilities, please visit the Moorfields website and search 'Referrals to treatment (RTT)'. To learn more about your rights under the NHS constitution, visit www.nhs.uk/choiceinthenhs