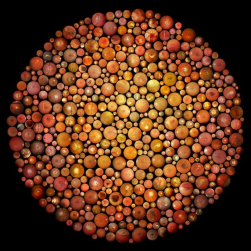
Epiretinal Membrane (ERM)

Patient Information Leaflet

MEDICAL RETINA



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KEY POINTS

- An epiretinal membrane (ERM) is a fine layer of scar-like tissue that forms on the inner surface of the macula, sometimes wrinkling it.
- Most ERMs cause no symptoms and are picked up incidentally; many never need treatment.
- The most common symptom is distortion of central vision - straight lines appearing wavy or bent. Letter-chart acuity may remain surprisingly good.
- Surgery is considered when distortion is bothersome and remains intrusive with both eyes open.
- Surgery (vitrectomy and membrane peel) is performed by a vitreoretinal surgeon. I will refer you on if and when surgery is appropriate.
- If you also have a cataract, surgery to remove it can sometimes be performed without addressing the ERM, with appropriate counselling and post-operative care.

What Is an Epiretinal Membrane?

The retina is the light-sensitive lining at the back of the eye, and the macula is the small but critical area at its centre that handles your central, detailed vision. An epiretinal membrane is a thin sheet of cells that forms on the inner surface of the macula. Over time, this membrane can contract slightly, pulling on the underlying retina and creating a distorted or wrinkled appearance.

You may also hear ERMs referred to as macular pucker (when the wrinkling is more pronounced) or cellophane maculopathy (when the membrane is fine and translucent, like a layer of cling film). All three terms describe the same underlying process at different stages or severities.

Causes

ERMs are most often idiopathic - meaning they develop spontaneously, usually in association with normal age-related changes in the vitreous gel that fills the eye. As the gel separates from the retina (a process called posterior vitreous detachment, or PVD), small areas of irritation can trigger the formation of a membrane.

ERMs can also develop secondary to other conditions affecting the retina, including:

- Retinal vein occlusion (RVO)
- Diabetic retinopathy
- Previous retinal tears or detachment
- Uveitis or other inflammatory eye disease
- Previous intraocular surgery

Where an ERM is associated with an underlying condition, that condition is treated alongside any decision about the membrane.

Symptoms

Many ERMs cause no symptoms at all and are detected incidentally during a routine eye test or scan for another reason. When symptoms do occur, the most common are:

- Distortion of central vision - straight lines appearing wavy or bent (metamorphopsia)
- Difficulty reading or recognising faces
- Mild blurring of central vision
- A sense that the affected eye sees objects as smaller, larger, or differently shaped than the other eye

An important feature of ERM is that visual acuity measured on a letter chart often remains surprisingly good even when distortion feels significantly bothersome. The decision to consider surgery is based on how the symptoms affect you, not just the chart number.

Vitreomacular Traction

A closely related condition called vitreomacular traction (VMT) occurs when the vitreous gel does not fully separate from the macula and continues to pull on it. ERM and VMT often coexist and can cause similar symptoms; the OCT scan distinguishes between them and guides management.

How Is ERM Diagnosed?

I will examine the back of your eye with dilating drops and arrange an OCT scan (optical coherence tomography). This is a quick, painless scan that produces detailed cross-sectional images of the retina and is the key investigation for ERM. The scan shows the membrane itself, any traction or distortion of the underlying retinal layers, and the integrity of the deeper photoreceptor layers - all of which help guide whether and when to consider treatment.

I may arrange follow-up scans at intervals to monitor for change. ERMs are typically slowly progressive over months to years, and many remain stable.

When Is Surgery Considered?

Surgery for ERM is generally indicated when distortion from the affected eye is bothersome and remains intrusive with both eyes open. Many patients find that mild distortion in one eye is well tolerated when the other eye is functioning normally - the brain naturally favours the better image, and symptoms become a much less prominent part of daily vision. When this is no longer the case, and distortion or visual difficulty remains a problem with both eyes open, surgery becomes a reasonable consideration.

The decision is yours, made together with me and the vitreoretinal surgeon. Letter-chart acuity is one factor, but the impact on your daily life is more important.

Surgery

ERM surgery is called pars plana vitrectomy with membrane peel. It is performed by a vitreoretinal surgeon, and I will refer you on if and when surgery is appropriate. The operation is most commonly carried out as a day case under local anaesthetic and typically takes 30 to 60 minutes; three small ports are made in the white of the eye through which the vitreous gel is removed and the membrane is gently peeled from the retinal surface.

Visual recovery is gradual: distortion typically begins to settle over weeks to months, with continued improvement out to a year or more. The aim of surgery is to reduce distortion and stabilise vision; some patients also gain a line or two of acuity. Outcomes are generally good but cannot be guaranteed.

The most important consequence to be aware of is that vitrectomy accelerates cataract formation in eyes that still have their natural lens - most patients who have not already had cataract surgery will need it within one to two years. Other risks (retinal tear, retinal detachment, infection, and recurrence of the membrane) are uncommon and will be discussed in detail by the surgeon.

Cataract Surgery When You Have Both

It is not uncommon for an ERM and a cataract to coexist, and decisions about how to manage them together require careful thought. If the ERM is mild and the OCT shows that the deeper retinal layers are well preserved, cataract surgery alone can sometimes be performed without addressing the membrane - particularly when the cataract is the dominant cause of symptoms.

In this situation I will counsel you that the visual outcome carries a slightly more guarded prognosis than for cataract surgery in an eye with no ERM, and a course of anti-inflammatory eye drops (typically Acular for several weeks after the operation) is recommended to reduce the risk of post-operative macular swelling, to which eyes with ERM are more prone. If the ERM is more advanced or the cataract is otherwise mild, combined or sequential surgery may be a better approach.

Glasses, Monitoring, and Follow-up

Distortion caused by an ERM is not corrected by glasses, since it arises from the retina rather than the focusing system of the eye. Any glasses change made now may not remain accurate if the ERM progresses or if surgery is later carried out - it is generally better to wait until the situation has stabilised before having a new prescription made.

I will arrange review appointments with repeat OCT scans to monitor the membrane and any related changes; the interval depends on your symptoms and findings. Self-monitoring with an Amsler grid can help detect changes between appointments. If you notice a clear worsening of distortion, a new dark patch, or a sudden change in vision, please contact my secretary so that you can be seen sooner.