

EPIRETINAL MEMBRANE SURGERY PATIENT INFORMATION

What is an EPIRETINAL MEMBRANE?

(Also known as macular pucker, premacular fibrosis or cellophane maculopathy)

An epiretinal membrane is a thin sheet of fibrous tissue that can grow over the surface of the retina. The retina is like the film in a camera and the macula is the most central and important part of the retina.

What are the CAUSES of an EPIRETINAL MEMBRANE?

In most cases an epiretinal membrane occurs as a result of age changes in the vitreous gel which cause it to separate from the retina. These changes occur in everyone and are normal, but for unknown reasons, some people develop scarring or membrane formation.

Occasionally an epiretinal membrane will develop in an eye as a result of retinal tears, detachment, trauma, inflammatory disease, blood vessel abnormalities, or other pathological conditions.

What are the SYMPTOMS of an EPIRETINAL MEMBRANE?

Some patients have no symptoms at all in the early stages. It is important to cover one eye and test the vision in each eye in turn. Most notice a reduction in central vision or distortion. Straight lines may look bent or wavy or may have an area missing. Images may look larger or smaller than they really are.

What happens if I do nothing?

If an epiretinal membrane is mild and not interfering with your vision, no treatment is required. An annual review and OCT scan to monitor for progression are important.

If an epiretinal membrane starts to progress and get worse, the central vision can get worse. In severe cases the macula can gradually lose function, and the eye will become legally blind (unable to see the largest letter on the top of the eye chart). The peripheral vision will remain intact.

An epiretinal membrane will almost never go away by itself and once it becomes severe, the chance of spontaneous improvement becomes almost nil.

What are the TREATMENT options for EPIRETINAL MEMBRANE?

Modern surgery allows us to very successfully remove the epiretinal membrane. The surgical procedure is called a **Vitrectomy**. This is performed using very fine microsurgical “keyhole” instruments to gently peel the membrane from the retina. The surgery is painless and takes less than one hour.

What type of ANAESTHETIC is used and what are the risks of EYE ANESTHESIA?

Vitrectomy surgery is performed under local anaesthesia, with sedation. It is typically performed in a day surgery or hospital setting and an overnight stay is not required.

There are risks associated with anaesthesia, whether general or local.

Complications of anaesthetic injections around the eye may include:

- Perforation of the eyeball,
- Injury to the optic nerve resulting in loss of vision,
- Haemorrhage,
- Retinal detachment, i
- Interference with retinal circulation resulting in possible vision loss,
- Systemic hypotension (low blood pressure)
- Respiratory depression.
- Any anaesthesia or medication can very rarely cause severe anaphylaxis (allergic reactions) which can result in death.

What is the chance of success?

Modern surgery is now very successful in removing the membrane. Some very rare cases may require further surgery if regrowth occurs.

What is the chance of my vision improving?

The amount of vision that returns depends mostly on how much vision was lost pre-operatively and how long the membrane was present for. If the membrane has been present for many years, the amount of vision that returns will be less than if it were only present for a few months.

It is important to understand that any improvement occurs very slowly, as the retinal cells remodel, and the vision may continue to improve slowly for up to **three to six months**.

What if I have a gas bubble?

- Dr Hogden will tell you if you have a gas bubble placed during surgery. **This is rarely required** for an epiretinal membrane
- If you have a bubble you will need to keep your **face down** for the first 24 hours. This is best done for at least 50-55 minutes in the hour, the other 5-10 minutes may be used to perform normal duties. You need to sleep with your head face down as much as possible. The face down position can be maintained whilst sitting in a chair and keeping one's head down.
- While the bubble is present, you **MUST NOT FLY** in an airplane **under any circumstances**. Doing so will result in **BLINDNESS** as the bubble expands with altitude. If you have air travel plans within the first two months after your surgery, mention this to your doctor.
- If you need to travel over the range to Toowoomba, you must discuss this with your doctor first. The increased altitude can cause severe, vision threatening pressure rises. It is usually best to stay at sea level for 1 week before going back over the range. This depends on the type of bubble, so ask your doctor.
- If you require surgery of any kind over the following two months you **MUST TELL THE ANAESTHETIST ABOUT THE GAS BUBBLE**, as nitrous gas anaesthetics will cause the bubble to expand and cause severe vision threatening pressure rises. This includes dental procedures.

What are the risks of surgery?

There is no guarantee that surgery will improve your condition. Sometimes despite everyone's best efforts it does not work. In addition, all surgery has risks and sometimes it can make the problem worse - cause an injury or create a new

problem; if it does, this is called a complication. Complications can happen right away or not until days, months, or years later. You may need more treatment or surgery to treat the complications.

This document lists the major risks of surgery to help you decide whether you are ready to accept the risks.

- A **cataract** develops in all adults usually around age 60-80 but will most certainly develop earlier after a vitrectomy than would be expected during the normal aging process. Sometimes cataract surgery will be required within a few months after epiretinal membrane surgery.
- Occasionally, the eye may develop increased pressure (**glaucoma**) and medication may be required to control this.
- A **retinal tear or retinal detachment** may develop post-operatively and would require further surgery to correct.
- **Infection** and **haemorrhage** are very rare risks which may occur with any surgery. Very rarely, if you have a severe infection or severe bleeding you can go **blind in the eye**. The chance of this occurring is much less than 1 percent.

Other major risks can include:

- Poorly healing or non-healing corneal defects
- Corneal clouding and scarring (in severe cases may require corneal surgery)
- Lens complications such as dislocation or need for removal / replacement
- Double Vision
- Eye lid droop
- Redness of the eye
- Loss of circulation to vital tissues in the eye, resulting in decrease or loss of vision
- Phthisis (disfigurement and shrinkage of eyeball)
- If you have surgery on one eye, extremely rarely, the vision in the other eye can be affected by a condition called sympathetic ophthalmitis, however the incidence of this is less than 1 in 10,000

What happens after the surgery?

Immediately after the surgery, a patch will be placed on your eye with tape. This will be removed the morning after the surgery when you come to the office. After that, there is no need to wear a patch during the day. A protective shield is recommended for sleeping, for the first week after the surgery.

Following surgery, the vision will be very blurred initially due to swelling and the dilating eye drops. Some patients may need to have a gas bubble will see a black, wobbly, horizontal line which will slowly become lower and lower. This is the edge of the gas bubble and is normal and will go away completely when the bubble is reabsorbed.

For the first one to two weeks following surgery you need to take it easy. Eye drops need to be used for one to two months following surgery. These should commence the day after surgery, after you have seen your surgeon.

You must not resume driving until the vision returns to pre-op levels and you feel safe to do so.

New spectacles may need to be obtained three to four months following surgery.