

Full thickness macular hole

Information for patients



Your eye doctor has told you that you have a macular hole. You might want to discuss this information with a relative or carer. If you have any questions, we suggest you write them down so you will remember to ask one of the hospital staff.

What is a full thickness macular hole?

A macular hole is a problem with your retina. The retina is a layer of nerve cells inside your eye. It sends signals to your brain when light falls on it. The macula is the area of retina used for fine central vision – for things like reading and recognising faces. A full thickness macular hole is a defect that goes all the way through the retina.

How does a full thickness macular hole affect your vision?

A macular hole can make objects in the centre of your vision seem blurry or distorted. Straight lines like the edges of doors or windows may appear bent. Often this is only noticeable when one eye is closed. Some people have very little change in their vision. Very early (stage 1) holes can get better on their own but larger holes cause visual problems that get worse over time. A macular hole can sometimes develop in both eyes (less than 20% of patients).

What causes a full thickness macular hole?

Sometimes there is no obvious cause. In other cases, a membrane (a thin layer) on the surface of the retina pulls the hole open. This is known as an epiretinal membrane.

How is a macular hole treated?

The most reliable treatment is surgery, although you may hear of other treatments being tested. Surgery is usually done under a local anaesthetic. It is done by a specialist vitreo-retinal surgeon. Often this specialist will closely supervise a junior surgeon who may do some or all of the operation.

During the operation the surgeon removes the gel from inside your eye. If a membrane is pulling on the retina then this is gently removed. A bubble of gas is put inside your eye to encourage the macular hole to close. The operation is done through very small openings in your eye, using keyhole surgery. Sometimes these openings are closed with a small stitch at the end of the operation. These dissolve after 4 to 6 weeks. You will usually have a pad and shield over your eye after the operation. This is removed the next day.

What are the benefits of surgery?

In most patients, surgery either improves their vision or stops it from getting worse (80% of patients).

What are the risks of surgery?

Some patients find their vision gets worse despite surgery (20%). It is uncommon but possible for the macular hole to open again after it has closed (5% of patients). Rarely a retinal tear or detachment can develop after the operation (1%), or a severe infection develops inside the eye (less than 1%). There is a very small chance that you could lose sight completely in the eye (less than 1 in 1000 cases). Cataract is common after this type of operation but it can be treated easily with standard cataract surgery. It is possible for the gas bubble to put too much pressure on your eye and this could damage your eye if it is not treated.

After the operation

Your eye will feel uncomfortable, gritty, and itchy for a week or two. It may also look red or bruised. Regular paracetamol is usually enough to treat the discomfort. You will receive eye drops to reduce inflammation and prevent infection. **Please do not rub your eye** as this can introduce infection. Your eye will heal over the next 6 weeks but your vision might continue to improve for several months.

Just after the operation your vision will be very poor because there is a **gas bubble in your eye**. As the gas bubble disappears downwards you will begin to see over the top of the bubble.

In order for the gas bubble to press on the macula you will need to sit or lie with your head **face down**. This is usually needed for 7 days. There is a separate information leaflet about **posturing**.

You must not fly until the gas has disappeared because the bubble will expand and damage your eye. You must also **not have nitrous oxide anaesthetic** ('gas and air', or 'laughing gas') for the same reason. We use these types of gas bubble:

- C3F8 which stays in your eye up to 12 weeks
- C2F6 which stays in your eye for 8 weeks
- SF6 which stays in your eye for 4 weeks
- Air which stays in your eye for 2 weeks.

Your surgeon will tell you which type of gas is in your eye.

When to seek help

It is normal to have some discomfort after your operation, but you should contact Ward E2 (**0131 536 1172**) immediately if you have:

- Severe pain not helped by paracetamol
- Headache and nausea, or vomiting
- Loss of vision after initial improvement
- Worsening redness of your eye.

General advice after retinal surgery

- Use your eye drops as instructed
- Stay off work and take it easy for 3 weeks
- Feel free to read or watch TV in moderation
- You can shower, but avoid getting water or soap in your eye
- Wear your own glasses if they help you see. Wear sunglasses for comfort
- Avoid heavy lifting or straining for 3 weeks. For example, refrain from gardening and sport, and take a less active role sexually. Drinking plenty of water and eating fibre can help prevent straining from constipation
- Do not drive until after your first clinic appointment
- Do not rub your eye.

Cancellation

While we make every effort to avoid this where possible, there is always a risk that your operation may be cancelled at short notice. This is due to either emergency patients who require urgent surgery or other reasons which are beyond our control. We realise that this can cause distress and inconvenience, but in the event that your surgery is postponed, you will be offered a new date as soon as possible.

Keeping your appointment

If you cannot keep your appointment, or have been given one that is unsuitable, please change it by phoning the number on your appointment letter. Your call will give someone else the chance to be seen and will help us keep waiting times to a minimum.

Public transport and travel information

Bus details available from:

Lothian Buses on 0131 555 6363 www.lothianbuses.co.uk

Traveline Scotland on 08712002233 or www.travelinescotland.com

Train details available from:

National Rail Enquiries on 03457 484 950 or www.nationalrail.co.uk

Patient transport

Patient transport will only be made available if you have a medical/clinical need.

Telephone 0300 123 1236 (calls charged at local rate) up to 28 days in advance to book, making sure you have your CHI Number available. Hard of hearing or speech impaired?

Use text relay: 18001-0300 123 1236 (calls charged at local rate). To cancel patient transport, telephone 0800 389 1333 (Freephone 24 hour answer service).

Interpretation and translation

Your GP will inform us of any interpreting requirements you have before you come to hospital and we will provide an appropriate interpreter. If you are having this procedure as an existing inpatient, staff will arrange interpreting support for you in advance of this procedure. This leaflet may be made available in a larger print, Braille, or your community language.

Useful contacts

Ward E2, Princess Alexandra Eye Pavilion, Chalmers Street, Edinburgh, EH3 9HA
0131 536 1172

Useful web links

The British & Eire Association of Vitreoretinal Surgeons – <https://beavrs.org>

