

Patient information leaflet

Full Thickness Macular Hole

Your eye specialist has told you that you have a macular hole. This information leaflet has been written to inform you of this condition and the possible treatments available. 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?

The retina is a layer of nerve cells inside your eye. When light falls on retina, it sends signals to your brain. 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 formed when there is a defect that goes all the way through the retina.

How does a full thickness macular hole affect your vision? Macular holes typically affect your central vision. The hole may make objects in the centre of your vision seem blurry or distorted. Straight lines like the edges of doors or windows may appear bent. For some patients this is only noticeable when one eye is closed. Small holes may get better on their own but larger holes cause significant visual problems that get worse over time. A macular hole may also develop in the fellow eye.

What causes a full thickness macular hole?

It is unclear why macular holes develop however, they are associated with risk factors including age, female sex and short-sightedness.

How is a macular hole treated?

The most reliable method to treat macular holes is surgery. Surgery is usually performed under a local anaesthetic with sedation. It is done by a specialist vitreo-retinal surgeon. These surgeons specialise in this type of surgery. During the operation the surgeon removes the gel from inside your eye, called vitreous. They also peel a membrane called the inner limiting membrane (ILM) that may be pulling on the retina. A bubble of gas is put inside your eye to encourage the macular hole to close. The operation is done through 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 the vast majority of patients, the macular hole is closed with a single procedure. Patients find that following surgery the vision is either improved or has halted any further deterioration in vision. However, the quality of vision is never as good as it was before the macular hole formed, even if the operation is a complete success.

What are the risks of surgery?

It is uncommon but possible for the macular hole to open again after it has closed. If the hole doesn't close you may be offered a second operation but the chance your vision will improve is much smaller. Rarely a retinal tear or detachment can develop after the operation, or a severe infection develops inside the eye. There is a very small chance (less than 1:1000) that you could lose sight completely in the eye. 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 may cause pressure in the eye to increase 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 pain relief 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 to 8 weeks but your vision might continue to improve for several months following the surgery.

Your vision just after the surgery is poor because there is a **gas bubble in your eye**. As the gas bubble gradually disappears downwards and as it does so 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**. Your surgeon may ask you to posture like this for 5 days. There is a separate information leaflet about posturing.

You must not fly until the gas has disappeared as 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 8 weeks
- C₂F₆ which stays in your eye for 4 weeks
- SF₆ which stays in your eye for 3 weeks
- Air which stays in your eye for 1 week.

Your surgeon will tell you which type of gas is in your eye and a wrist band with this information is provided.

When to seek help

It is normal to have some discomfort after any operation, but you should contact The Edinburgh Clinic **0131 447 2340** (opening hours 0800-2000 Monday to Friday and reduced hours at weekends) Clinic out of hours number **07885 448248**.

Call NHS24 on **111** 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 2 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 2 weeks. For example, refrain from gardening and sport, and take a less active role sexually
- Do not drive until after your first clinic appointment
- Do not rub your eye.

Keeping your Appointment

If you cannot keep your appointment, or have been given one that is unsuitable, please change it by phoning **0131 447 2340**. Your call will give someone else the chance to be seen and will help us keep waiting times to a minimum.