

## Patient information

# Macular Hole Surgery

## St. Paul's Eye Department

Your Consultant / Doctor has advised you to have Macular Hole surgery. There may be alternative treatments or procedures. Please ask a doctor or nurse to discuss these with you.

### What is the macular?

The macula is an area on the retina where light rays focus. The retina is a fine sheet of nerve tissue lining the inside of your eye. Rays of light enter your eye and are focused on the macular area of the retina. A picture is then produced and sent along the optic nerve to the brain for interpretation. This is rather like the film in a camera being developed so that pictures can be produced.

Usually the macular is attached to the inner surface of your eye. If there is a hole, then fluid can get underneath it. When this happens, the macular cannot create a clear picture from the incoming rays and the vision becomes blurred and out of shape. If you do not have surgery, central eyesight will gradually get worse so that you struggle to see the largest letter on the vision chart. Side vision is not affected by this condition.

### What causes macular holes?

A macular hole occurs more in middle-aged people. About 70% of cases occur in women, especially between the ages of 60-80 years. Approximately 50 people are operated upon in St. Paul's every year for this condition.

Macular holes are caused by a degenerative process because of the vitreous gel contracting and pulling on the surface of the retina.

The treatment involves removing the vitreous gel and so reducing the pulling force that it exerts on the retina. About one in ten people develop the condition in the other eye.

### **What are the benefits of macular hole surgery?**

Surgery can close the macular hole in 85-95% of cases, and vision can be improved. The amount of improvement varies from patient to patient. The best chance of improvement appears to be when surgery is successful and when symptoms have been present for less than 12 months.

### **What are the risks of macular hole surgery?**

- Bleeding or infections are the most serious complications, but these are rare (approximately one in 400-500 operations).
- Tears in the retina causing retinal detachment.
- Loss of a part of the field of vision usually in the outer side towards the temple.
- Cataract development. This is unavoidable but progresses slowly.

You should consider the treatment to involve two operations from the start, one for macular hole and one for cataract extraction.

### **What sort of anaesthetic will be given to me?**

General anaesthetic or local anaesthetic may be suitable for your surgery. General anaesthetic is drug-induced unconsciousness. It is always provided by an anaesthetist, who is a doctor with specialist training. Local anaesthetic is drug-induced numbness: it may be provided by an anaesthetist, surgeon, or other healthcare professional, depending on the technique used.

Unfortunately, both local and general anaesthetic can cause side effects and complications.

Side effects are common, but are usually short-lived: they include nausea, confusion, and pain. Complications are very rare, but can cause lasting injury: they include awareness, paralysis, and death.

There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

The risks of anaesthetic and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well. For more information, please ask for a copy of the Royal College of Anaesthetists Patient Information “You and Your Anaesthetic”.

## **Local anaesthetic in eye surgery**

### **There are three ways of giving local anaesthetic for eye surgery:**

1. **Anaesthetic drops** - These are the same as those used in the outpatient department to measure the eye pressure. Such drops cause stinging but are very safe. Many eye operations can be done with drops only – even cataract surgery.
2. **Eyelid injection** - If you are having an operation on your eyelid, such as a cyst removal, anaesthetic is injected into the skin. The feeling is like having a blood sample taken. A bruise is the most common complication.
3. **Injection around the eye** - For operations such as cataract, glaucoma and retinal surgery, it is usual to inject anaesthetic into the eye socket around the eyeball. This anaesthetic is known by several terms, including retrobulbar and peribulbar anaesthesia.

The main problems are bleeding, the needle sticking into the eyeball, and injection into a vein.

These very rare complications can cause problems with your heart rate and breathing and may lead to your operation being cancelled.

An anaesthetist will be available if you are having an injection into your eye socket. You will be given an opportunity to discuss anaesthetic options and risks before your surgery.

If you are worried about any of these risks, please speak to your consultant or a member of their team before you are due to have this treatment.

## **Getting ready for your operation**

You will be seen in the pre-operative assessment clinic before you are admitted to hospital. This assessment takes place in the Outpatient department.

## **Important**

Please do not forget to bring a urine sample with you and a list of your current medication.

If you have diabetes or travel by ambulance, it may be worthwhile bringing a sandwich or alternative snack with you.

Depending on the type of anaesthetic you will be given, the following tests may be required:

- Blood, heart, urine, weight, and vision test.

It may be necessary for you to undress to the waist and wear a hospital gown to have these tests.

Female patients will need to remove tights. Lockers are provided.

These tests are very important for you. It is better to find out about any problems at this stage than to come into hospital expecting to have an operation, only to be told it has been postponed for medical reasons.

If there are any complications, our doctors will refer you to the appropriate hospital specialist or to your own family doctor (GP). You will be told if this is the case.

## **Interview / teaching session**

You will be encouraged to ask questions and talk about your condition and operation. A qualified ophthalmic nurse will explain your care in detail using a specially designed care programme.

## **The day of your operation**

- You will either come into hospital the day before or the day of your operation.
- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 08.30 and 4.30 Monday to Friday. Therefore, if you are discharged outside these times, we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.
- You will be asked to remove jewellery - plain bands can be worn but they will be taped.
- If you are on regular medication, you will be told to take this if necessary.
- You may be asked to put on a gown and disposable underwear.
- **If you are having a local anaesthetic.** You may have a light meal before your operation, for example toast and cereal.

- **If you are having a general anaesthetic.** You will have been given instructions before you come into hospital.
- A bracelet with your personal details will be attached to your wrist.
- You will be able to discuss the operation with a doctor. You will be asked to sign a consent form to say that you understand the procedure, and what the operation involves.
- You may be prescribed some medication to take before your operation by the anaesthetist. A member of the nursing staff will give this to you.
- A nurse and porters will take you to the operating theatre.
- Your dentures, glasses or hearing aid can stay with you on your journey to the operating theatre.
- When you arrive in the waiting area, a theatre nurse will check your details with you. You will then be asked to put on a disposable hat.
- The ward nurse will then leave you and you will then be taken to the anaesthetic room.

## **The operation**

The operation to treat the macular hole is called a Vitrectomy. The surgery involves the removal of vitreous gel, injection of a gas bubble. We also want to assure you that the surgeon does not take your eye out of its socket to perform the operation.

## **What should I expect after my operation?**

- After your operation you will be kept in the theatre recovery room before being transferred to the ward.

- A nurse will check your pulse, blood pressure, breathing rate and wound regularly.
- The nursing staff will also advise you when you can start taking sips of water. Anaesthetics can make some people sick. If you feel sick, we advise you not to drink until this feeling has passed. The nursing staff may offer an injection to help this sick feeling go away.
- You should perform simple foot and leg exercises to encourage circulation.
- You will be required to posture face down immediately after your surgery (see "posturing" leaflet). This is to enable the bubble of gas to rise and act like a splint, supporting the rim of the hole
- You will need to posture face down for seven to ten days.

## **Discharge Information**

### **If you have had a general anaesthetic**

- Do not drive or operate machinery for 24 hours.
- Do not take alcohol for 24 hours.
- Please make sure someone is with you to take you home and to be with you overnight.

### **Pain relief and medication**

- The nursing staff will advise you about painkillers before you leave the hospital.
- Continue any oral medication prescribed by the doctors.
- Please wash your hands both before and after applying eye drops.
- Apply your drops at the correct times. A member of the nursing staff will show you how to apply your drops.

**If you have any severe pain, sudden loss of vision or excessive stickiness, please contact the Eye Emergency Department on Tel: 0151 706 3949.**

**Text phone number: 18001 0151 706 3949**

## **Your eye**

For **two** weeks after the operation please

- Avoid rubbing or pressing on your eye.
- Avoid heavy lifting (i.e., shopping bags), strenuous exercise or heavy gardening.
- Avoid getting soap or shampoo in your eye whilst washing.
- Continue to posture as your doctor has told you.
- Avoid eye make-up.

## **Getting back to normal**

- Ask your doctor when you can resume driving, swimming, and other sports.
- Your vision will be very blurred for a few weeks after the operation and following the injection of the gas bubble you may see a wobbly black rim appear in your line of vision.
- This bubble will move as you move and may stay with you for as long as eight weeks. It will gradually get smaller or may break up into small bubbles before disappearing. The eye will secrete vitreous fluid replacing what was removed during the operation.
- You must not travel by aeroplane until the gas bubble has been totally absorbed. This usually takes between six and eight weeks and needs to be confirmed by your specialist.



- If you require a general anaesthetic for surgery whilst you have a gas bubble in your eye it is important that you inform your anaesthetist.

## **Returning to work**

- You can self-certify for the first seven days of sickness. Before you are discharged, a medical certificate (sick note) may be issued by your hospital doctor to cover the expected time off you will need.
- We advise you to stay off work for two weeks so that you can do your posturing routine.

## **Further Appointments**

An outpatient appointment will be given to you before you are discharged from the hospital.

## **Frequently asked Questions**

### **May I read or watch TV after surgery?**

Yes, using your eye following surgery will not damage or hurt the eye. However, if you are posturing face down this is not recommended.

### **What about bending and activities within the house?**

You can resume normal activities within the household. Regarding more vigorous activities, ask your treating eye doctor

### **Are there any restrictions with regards to diet?**

There are no restrictions. As always, a healthy diet is advisable.

## **Can I drive?**

You are not allowed to drive following retinal surgery. Please ask your eye doctor when you will be allowed to drive again.

## **Do I need to wear sunglasses?**

You may find it more comfortable wearing sunglasses; however, there are no rules.

## **How long will I need to continue with my eye drops?**

Most post-operative drops will continue for approximately four to five weeks; however, your surgeon will instruct you individually.

## **Feedback**

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

## **Further Information**

**Tel: 0151 706 3928**

**Text phone number: 18001 706 3928**

**Retinal Nurse**

**Tel: 0151 706 2000 3994**

**Text phone number: 18001 0151 706 2000**

## Useful Websites

[www.eyemedlink.com](http://www.eyemedlink.com)

[www.stokeseye.com](http://www.stokeseye.com)

[www.nei.nih.gov](http://www.nei.nih.gov)

[www.macula.org](http://www.macula.org)

[www.avclinic.com](http://www.avclinic.com)

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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