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Macular Hole Information

What is Macular Hole?

The eye is like a camera with a lens in the front and film in the back of the eye. The retina is the light sensitive film at the back of the eye and the macula is the most important part of the retina, responsible for sharp central vision like reading, driving and focusing objects. A macular hole is the development of a small hole in the centre of the macula.

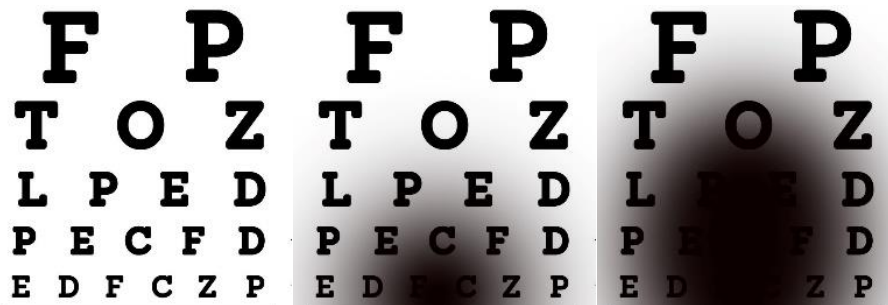
Macular holes and macular degeneration are different conditions although they affect the same area of the eye.

What causes macula hole

We do not know why macula holes develop, but it is probably caused by the vitreous jelly pulling the central macula. However, they tend to occur in patients over 60 years old and it typically affects women more than men. Other causes include trauma, being long-sighted and very short-sighted, those who have had other retinal problems or following longstanding macular swelling. The risk of developing macular hole in other eye is about 10%.

What are the symptoms

Macula is the important area on the retina responsible for sharp central vision. A hole on the macula causes distorted and blurred central vision, straight line may appear bent and sometimes a patch of missing vision in the centre. These symptoms become obvious when good eye is covered. Macular hole does not affect the peripheral vision used for navigation. It is unlikely for this condition to cause blindness, but if untreated the central vision may get worse even to read large prints like ‘Big E’ on the eye chart.



Central vision gradually gets affected by macular hole

Though macular hole can be diagnosed by clinical examination, it is necessary to do OCT scan of retina, to get intricate details of macular hole to advise about the surgical outcome.

Mr Viswanathan has access to the state-of-the-art retinal scanner to investigate the macular hole.

What is the treatment for macular hole

The only definitive intervention to treat a macular hole is to do an operation called vitrectomy. Some patients accept the poor central vision and choose not to have surgery. Not having an operation is also an option as there is no right or wrong decision as everyone has different priorities and requirements. You can discuss your decision with Mr Viswanathan regarding whether to have or not to have an operation for macular hole.

Macular hole Surgery – Sutureless Surgery

Macular hole is treated by an operation called vitrectomy. This involves a surgical procedure whereby the vitreous jelly is removed (Vitrectomy) from inside the eye to gain access to the macular hole, then a delicate layer (Inner limiting membrane) is carefully peeled off around the macular hole to stop the tractional forces that keep the hole open. The eye is then finally filled with a temporary gas bubble, which presses against the hole to help it seal. The gas bubble left inside the eye will which takes about 4 weeks to dissolve on its own.

The vitrectomy surgery is performed through three key-holes in the eye which does not require suturing. This surgery can be performed under local or general anaesthesia as a day case procedure which usually takes about an hour. If there is a cataract along with macular hole, then cataract is also removed at the same time as a single procedure during macular hole surgery.

How successful is the operation

Macular hole surgery success rate for Mr Viswanathan is more than 90% chance of hole closure following vitrectomy. Majority of patient with macular hole closure following surgery notice improved vision with a decrease in visual distortion. Much of the visual improvements occurs in the first few weeks and this can take up to 6 months. It is to be noted that for majority of patients even with successful hole closure, vision will not be as good as it was prior to the occurrence of macular hole and rarely vision can be worse after surgery.

What is gas bubble and face-down posturing

With a gas bubble in the eye, your surgeon may ask you to posture after the operation for up to 7 days. Posturing involves placing your head in a face-down position to allow the gas bubble to float into the best position to be in contact with the hole to encourage it to close. You will be required to posture up to 45 - 50 minutes of every hour during the day. The remaining time of every hour can be spent moving around as normal. Posturing after the operation is an important second stage of surgery but if you are unable to posture, still there is a good chance for the hole to close. You **must not fly or go high altitude** until the gas bubble disappears. and you must inform your anaesthetist if you require a general anaesthesia for any operation while there is gas in your eye. The gas bubble left inside the eye will take about 4 weeks to dissolve on its own.

What if I cannot maintain a face-down position

Though keeping face-down after macular hole surgery is an established and proven practice, many studies have shown that posturing is not essential and if you have difficulties with adopting the correct position then it is possible to have a successful outcome, although closure rates are slightly lower. Maintaining face-down position gives your macula the best chance to be successfully treated. There are a number of devices that can make the “face-down” recovery period easier on you. You can discuss this with Mr Viswanathan.

What are the risks of macula hole surgery?

As with any procedure, there may be risks involved and you should discuss this with Mr Viswanathan before you give consent for surgery.

Common complications to be aware of include:

Failure of macula hole to close is about 10%

Cataract (clouding of the natural lens of the eye, sometimes cataract is also removed at the same time as the macular hole surgery)

Retinal detachment in 5%

Ending up with worse vision after surgery in about 10%

Cystoid macular oedema – Swelling of central retina in about 10%

Bleeding – very rare but if severe it can result in blindness

Infection – very rare about 1 in 1000, but can lead to blindness

Persistently raised eye pressure about 1 %

Sympathetic endophthalmitis - a very rare condition in which surgery in one eye triggers inflammation and sight problems in the other (1:10,000)

What to expect after the operation?

Macula hole surgery is a major operation and it is normal to experience some discomfort in the eye following surgery. You will be given specific posturing instructions which needs to be followed after surgery. The white of the eye may appear red with swelling to the eyelid. You may have some watering of the eye and a gritty sensation in the eye which slowly disappears in few days. You will be given eye drops to use for few weeks. You can shower or bath but avoid getting water directly into the eye, abstain from unhygienic environments, strenuous physical work and anything that puts the eye at risk of injury.

When will be the follow up appointment

You will be reviewed usually after one week and again after 4 weeks. Your vision in that eye will be blurred for a few weeks after the operation but it should improve slowly over time and this can take up to six months. Mr Viswanathan will discuss your final expected visual outcome of your surgery. If you have any concerns, please discuss this with your surgeon.

How much time will I need off work

You will need rest from work for about two weeks. We advise against driving until gas bubble disappears for the first few weeks while the vision improves. The duration of time off work

depends on the kind of work you do. However, any work-related or driving related concerns should be discussed with your surgeon

Where can I find further information?

Understanding macula hole surgery can be complicated. This information leaflet may not cover all the concerns you may have about this procedure.

Further information can be found at the following websites:

<https://www.nhs.uk/conditions/macular-hole/>

<https://www.mib.org.uk/eye-health/eye-conditions/macular-hole>

Scientific Evidence

The information mentioned here is based on a variety of sources, including latest published research and the Britain & Eire Association of Vitreoretinal Surgeons.

Disclaimer

It is impossible to diagnose and treat patients without complete eye examination by an ophthalmologist. I hope the above information will be of help before and after a consultation which this information supplements and does not replace. This information must not be used as a substitute for professional medical care by a qualified doctor or other health care professional.

If you have any concerns about your condition or treatment, please ask your surgeon Mr Viswanathan. We are not responsible or liable, directly or indirectly, for ANY form of damages whatsoever resulting from the use (or misuse) of information contained in this page or found on web pages linked to from this page.

<https://viswa.uk/macular-hole>

