

Macular Hole Surgery

What is the macula?

The macula is the part of the retina that enables us to make out things clearly and see colours. Rays of light enter the 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.

What is a macular hole?

A macular hole is as it sounds, a hole in the macula. Usually the macula is attached to the inner surface of the eye. If there is a hole then fluid can get underneath it. When this happens the macula cannot compose a clear picture from the incoming rays and the vision becomes blurred and distorted.

Why does it happen?

A macular hole is caused by an ageing process in the eye and is most commonly found in patient's aged between 60-75 years. It is more common in females.

The eye contains a clear jelly like substance called vitreous humour, which is attached, in parts to the retina. Because of the ageing, the vitreous humour shrinks and this can pull on thin areas of the retina in the macular area and cause a hole to appear.

What is the treatment?

An operation is required to remove the vitreous humour in order to reduce the pulling forces on the retina. A bubble of gas is injected into this space by the surgeon. This operation is called a VITRECTOMY and is generally performed under a local anaesthetic but can be performed under a general anaesthetic.

The surgery involves the removal of vitreous gel and injection of a gas bubble. It is highly likely that you will develop a cataract (an opacity or misting within the lens of the eye) after vitrectomy and gas. Therefore removal of cataract and insertion of lens implant can be performed at the same time as the vitrectomy for the macular hole repair. This avoids having subsequent cataract surgery within two years after vitrectomy. We also want to assure you that the surgeon does not take your eye out of its socket to perform the operation.

Are there any risks Involved?

As with any procedure there may be risks involved and you should discuss these fully with the consultant involved prior to your operation.

What happens after the operation?

By performing combined cataract and vitrectomy surgery, we are able to insert a larger gas bubble into your eye, hence face down posturing is not required after macular hole surgery.

What will my vision be like after the operation?

Your vision will be blurred for 2-3 weeks following the operation.

You may be able to see the bubble which will appear as a wobbly black ring in your line of vision. The bubble will move as you move and gradually get smaller or break into smaller bubbles, which in turn will be totally absorbed. The bubble will eventually be replaced by the natural fluids produced in the eye.

What are the benefits of surgery?

Vitrectomy surgery for macular hole often improves or stabilises vision and distortion. Vision after surgery depends on how damaged the vision was before surgery.

Repeat surgery

Surgery for macular hole is not always successful. Every patient is different and macular holes vary in their complexity. It is important to appreciate that some patients require more than one operation. Your surgeon will advise you individually of the chance of success with the operation you are about to receive.

Generally macular hole surgery carries a success rate of over 90%.

Are there any risks involved?

Some possible complications:

- Bleeding inside the eye (1 in 4000).
- Detached retina (1 in 200) which can be repaired with further surgery.
- Infection in the eye (1 in 2000), which can lead to loss of sight

What else do I need to know?

1. You must not travel in an aeroplane until the bubble has been completely absorbed. This is due to the possible risk of expansion of the bubble in the eye owing to the change in atmospheric pressure.
2. There is a small risk of you developing a macular hole in your other eye. If you notice blurring or distortion in the vision of your un-operated eye you should contact your G.P. or Optician urgently.