



MACULAR HOLE

What is a macular hole?

The **macula** is the part of the retina at the back of the eye that detects light. The cavity in the center of the eye is filled with a clear, jelly-like substance called the vitreous. As we age, the vitreous degenerates and can pull away from the surface of the retina.

Usually this happens with no problems. But sometimes the vitreous sticks to the retina. This can cause a small hole in the macula. Other causes include trauma, previous eye surgery or other eye disease that causes long-term swelling in the macula.

Once a macular hole develops in one eye, there is a 5 - 10% chance one will develop in the other eye.

Basic eye anatomy

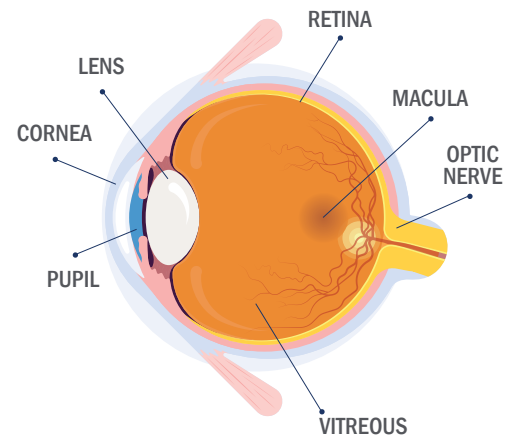
Light enters your eye and is detected by the **retina**, light-sensing nerve tissue lining the back of your eye. The information it receives is transmitted through the **optic nerve** to the brain, where it is interpreted as the images you see. The **macula** is the part of the retina responsible for sharp, central vision, and is the only area that can see fine details.

Damage to the macula can severely affect your central vision and make it difficult to perform certain activities such as reading fine print, recognizing faces or threading a needle.

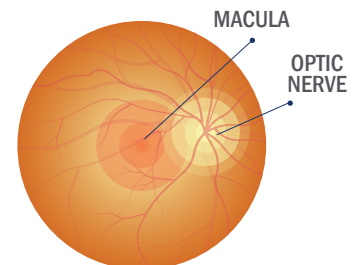
Symptoms of a macular hole

- Decreased, blurry or distorted central vision
- Grey or blind spot in central vision
- Difficulty reading or performing tasks that require detailed vision

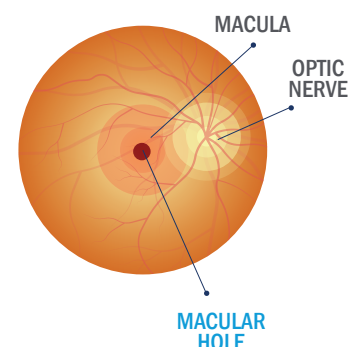
HEALTHY EYE



ANGLED VIEW



AFFECTED EYE



Examination and diagnostic testing

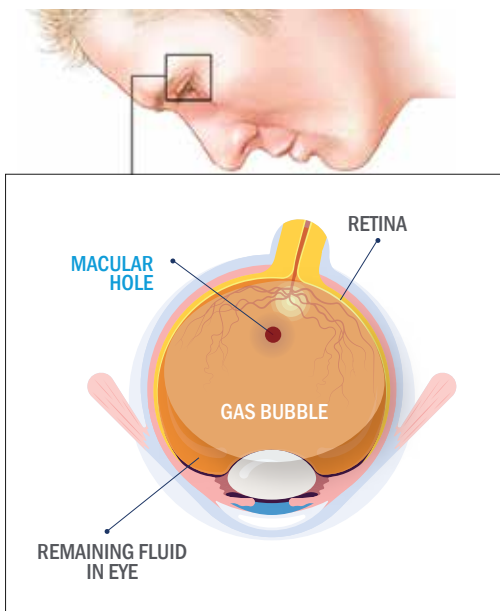
A macular hole can often be diagnosed by your eye doctor during a dilated eye exam. It may be further evaluated using special tests such as **optical coherence tomography (OCT)**.

Treating a macular hole

A macular hole rarely closes without surgical intervention, a surgery. In most cases a **vitrectomy** is recommended.

During surgery, your physician remove the vitreous that is pulling on your macula. Then they fill your eye with a gas bubble. This bubble helps flatten the macular hole and hold it in place while your eye heals. The gas bubble slowly gets reabsorbed as your eye re-fills itself with clear fluid.

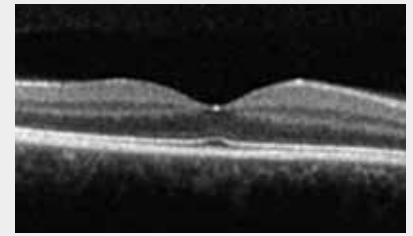
Following surgery, you will be required to remain in a face-down position for several days to encourage closure of the hole. Vision can improve gradually over the course of several weeks. Visual outcome depends on the size of the hole, the cause of the hole, how long it was present before diagnosis and your ability to remain face-down after surgery.



Scan here to watch a video featuring our own Dr. James Major discussing macular holes and macular hole surgery



WHAT YOUR DOCTOR SEES ON OCT



Normal macula



Macular hole

Risks of macular hole surgery

- Cataract formation/ progression
- Bleeding of the eye
- Eye infection
- Retinal tear/detachment
- High eye pressure
- Poor vision
- Pain
- Recurrence of underlying condition
- Macular hole closure may not be successful, which may require subsequent surgery

