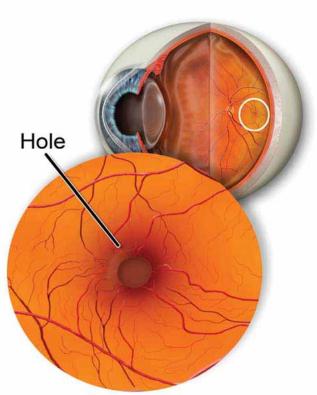
## **Macular Hole**





The retina is a thin layer of nerve tissue that lines the inside of the eye. Its function is to gather light and send visual information to the brain. The macula is the area of the retina that is critical to central vision.

A macular hole is a defect in the central retina. Most macular holes are caused by localized pulling on the retina by the jelly (vitreous) that normally fills the entire back of the eye. Early on, this pulling may cause mild visual blur as the retina becomes thinner. If a complete hole develops, patients are usually aware of a blind spot or distortion of their central vision.

There are several different causes for macular holes. Chronic macular edema (i.e. diabetics) and trauma are two potential causes for macular holes. However, the overwhelming majority of macular holes develop spontaneously and have no underlying disease cause. Macular holes that have no underlying cause are called **idiopathic macular holes**. These are the most common type of macular holes.

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**Intraocular Injection:** Small macular holes associated with abnormal pulling of the retina by the vitreous gel can be treated with an intraocular injection of a medicine called Jetrea®. This medication dissolves the proteins that cause the abnormal pulling and allows for proper separation of the vitreous gel.

Vitrectomy Surgery: Surgery is necessary to close large macular holes and macular holes which fail to close after non-surgical treatment with an intraocular injection. The goal of the surgery is to remove the gel (vitreous) that is pulling on the macula. This is done with a surgical procedure called a vitrectomy. The eye is filled with a large gas bubble. Following the surgery, the patient positions his/her head face down for the first 5-7 post-operative days. This permits the bubble to float to the back of the eye

Eyeball face-down

Gas bubble

and maintains gentle pressure on the macular hole, which helps the hole close. The gas bubble disappears by itself in about 2 weeks.

**Prognosis:** In most cases, visual improvement following macular hole surgery occurs gradually as the eye heals. Usually there is some visual improvement in the first few months. Many patients will continue to show gradual visual improvement up to 2 years following surgery.