

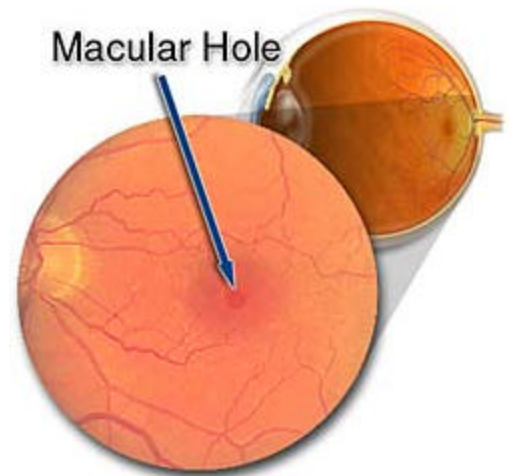
# Macular Hole

## Overview

Macular hole is a problem that affects the very central portion of the **retina**. It happens for a variety of reasons such as: eye injuries, certain diseases, and inflammation inside the eye. However, the most common cause is related to the normal aging process.

The **vitreous** gel inside the eye is firmly attached to the **macula**. With age, the vitreous becomes thinner and separates from the retina. Sometimes this creates traction on the macula, causing a hole to form.

Macular holes often begin gradually and affect central vision depending on the severity and extent of the problem. Partial holes only affect part of the macular layers, causing wavy, distorted, blurred vision. Patients with full-thickness macular holes experience a complete loss of central vision.



## Signs and Symptoms

The severity of the symptoms is dependent on whether the hole is partial or full-thickness.

- Blurred central vision
- Distorted, "wavy" vision
- Difficulty reading or performing tasks that require seeing detail
- Gray area in central vision
- Central blind spot

## Detection and Diagnosis

**Visual acuity testing**, **Amsler grid**, and **ophthalmoscopy** are all performed to evaluate the macula's health and function. The retina doctor may also order **photographs** of the macula prior to performing surgery to repair the hole.

## Treatment

Some macular holes seal spontaneously and require no treatment. In many cases, surgery is necessary to close the hole and restore useful vision.

Macular holes are repaired with surgery. During the operation, the surgeon first gently removes the vitreous gel with a procedure called vitrectomy. This eliminates any traction on the macula. A gas bubble is injected in the eye to place gentle pressure on the macula and help the hole to seal. In many cases, patients enjoy functional vision after the bubble has dissipated and the eye has healed.

