



Optical Coherence Tomography

What is optical coherence tomography?

Optical coherence tomography (OCT) is a non-invasive imaging test. OCT uses light waves to take cross-section pictures of your retina.

With OCT, your ophthalmologist can see each of the retina's distinctive layers. This allows your ophthalmologist to map and measure their thickness. These measurements help with diagnosis. They also provide treatment guidance for glaucoma and diseases of the retina. These retinal diseases include age-related macular degeneration (AMD) and diabetic eye disease.

What happens during OCT?

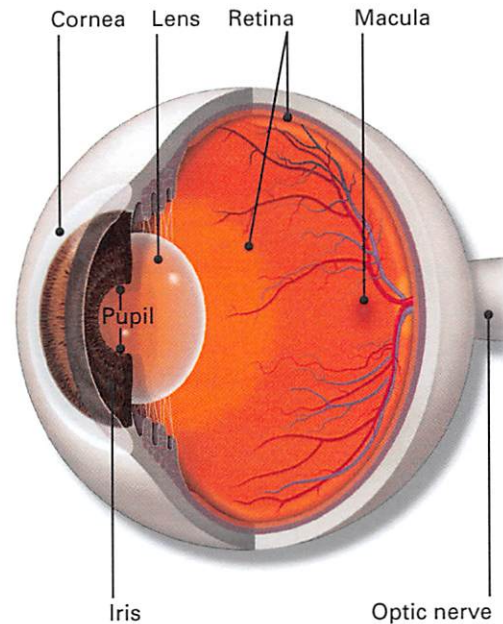
To prepare you for an OCT exam, your ophthalmologist may put dilating eye drops in your eyes. These drops widen your **pupil** and make it easier to examine the **retina**.

You will sit in front of the OCT machine and rest your head on a support to keep it motionless. The equipment will then scan your eye without touching it. Scanning takes about 5 – 10 minutes. If your eyes were dilated, they may be sensitive to light for several hours after the exam.

What conditions can OCT help to diagnose?

OCT is useful in diagnosing many eye conditions, including:

- macular hole
- macular pucker



Eye Words to Know

Retina: Layer of nerve cells lining the back wall inside the eye. This layer senses light and sends signals to the optic nerve.

Pupil: The opening at the center of the iris that allows light to enter the eye.

Optic nerve: A nerve at the back of your eye that connects to your brain. It sends signals from your retina to your brain so you can see.

Vitreous: Jelly-like substance that fills the middle of the eye.

- macular edema
- age-related macular degeneration
- glaucoma
- central serous retinopathy

- diabetic retinopathy
- vitreous traction

OCT is often used to evaluate disorders of the **optic nerve** as well. The OCT exam helps your ophthalmologist see changes to the fibers of the optic nerve. For example, it can detect changes caused by glaucoma.

OCT relies on light waves. It cannot be used with conditions that interfere with light passing through the eye. These conditions include dense cataracts or significant bleeding in the vitreous.

Summary

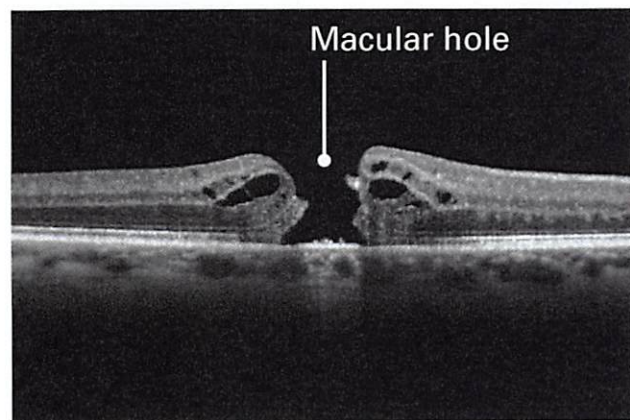
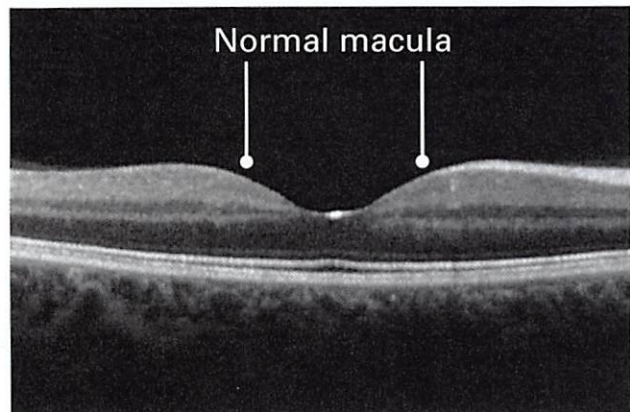
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If you have any questions about your eyes or your vision, speak with your ophthalmologist. He or she is committed to protecting your sight.

Get more information about optical coherence tomography from EyeSmart—provided by the American Academy of Ophthalmology—at aao.org/oct-link.



OCT image of a normal macula and a macular hole.

COMPLIMENTS OF:

