

## Looking deeper into GLAUCOMA

### What is glaucoma?

Glaucoma is a progressive disease of the optic nerve.

It can be associated with elevated pressure inside the eye and can lead to permanent vision loss.

Because there are usually no symptoms at first, glaucoma is called the “sneak thief of sight”. As the disease progresses, a person with glaucoma may notice his or her vision gradually failing.

Your optometrist has recommended scanning your retina to evaluate possible signs of glaucoma.

For this procedure, your optometrist will be using a highly innovative instrument called Cirrus™ HD-OCT. This advanced-technology instrument never touches your eye, so there’s no discomfort. It’s safe and requires only a few minutes of your time. Most importantly, Cirrus HD-OCT helps your optometrist to clearly see the internal structures of your eye, so problems can be treated before they progress. The unique view that your optometrist sees with Cirrus HD-OCT is called a direct cross-sectional image of your retina.

### What is direct cross-sectional retinal imaging?

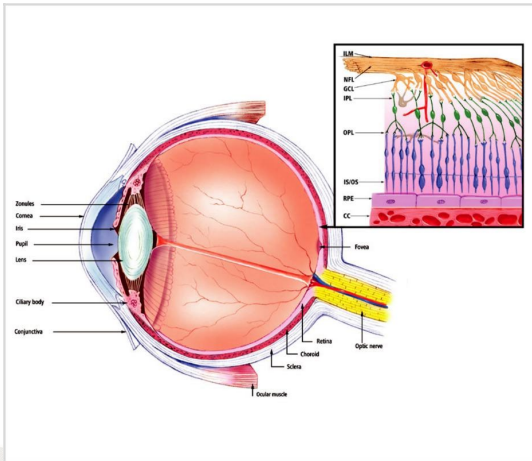
The retina is the innermost lining of the inside of your eye. It is composed of several layers, and functions like the film in a camera. The lens of the eye focuses images on your retina, much like the lens of a camera focuses images on film. These images are transmitted to your brain by the optic nerve, enabling you to see.

Direct cross-sectional imaging is so named because it enables your optometrist to look directly at a “cutaway” view of the layers of the retina and optic nerve, and accurately measure their characteristics. Other machines show the surface of these structures, but Cirrus HD-OCT shows your optometrist what is below the surface.

### Does this type of image help your optometrist?

The best answer is, examining your retina without the Cirrus HD-OCT would be like trying to diagnose a broken arm without an x-ray, or a ruptured disc without an MRI.

## The Layers of the Retina

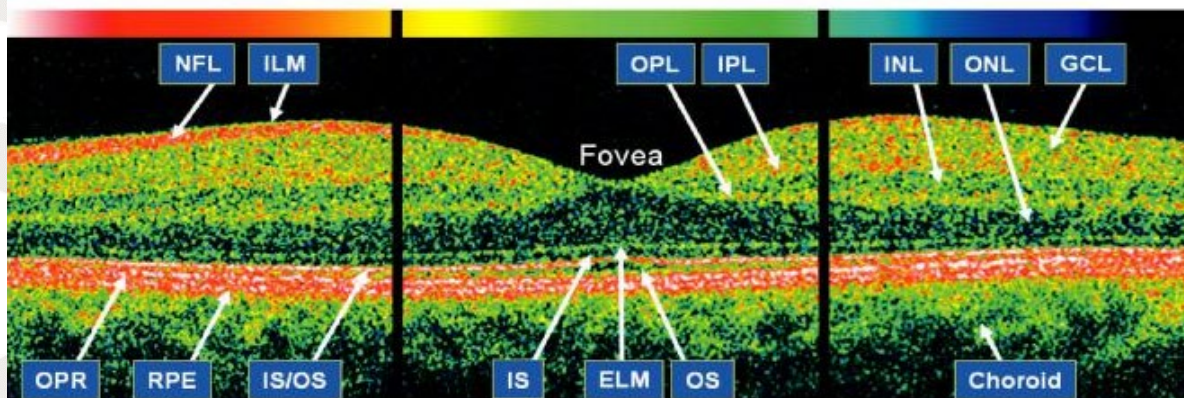


## Cirrus HD-OCT Image

Strong Reflection

Medium Reflection

Weak Reflection



Nerve fi

NFL: bre layer

IS: Photo receptor inner segment

ILM: Inner limiting membrane

OS: Photo receptor outer segment

GCL: Ganglion cell layer

IS/OS: Interface between PR inner & outer segment

IPL: Inner plexiform layer

INL: Inner nuclear layer

OPR: Outer PR/RPE complex

OPL: Outer plexiform layer

RPE: Retinal pigment epithelium + Bruch's membrane

ONL: Outer nuclear layer

ELM: External limiting membrane

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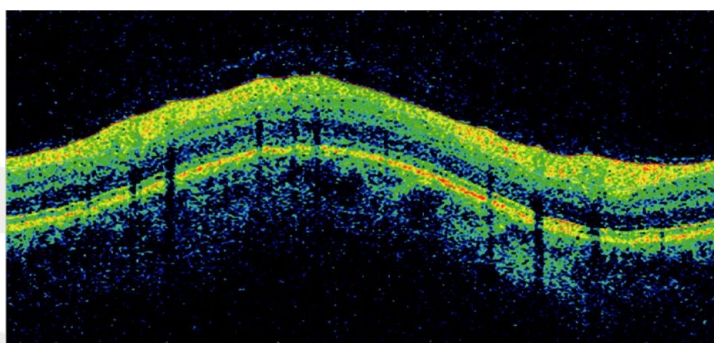
This is a Cirrus HD-OCT image of the layers of a normal retina.

What does direct cross-sectional retinal imaging offer that's unique?

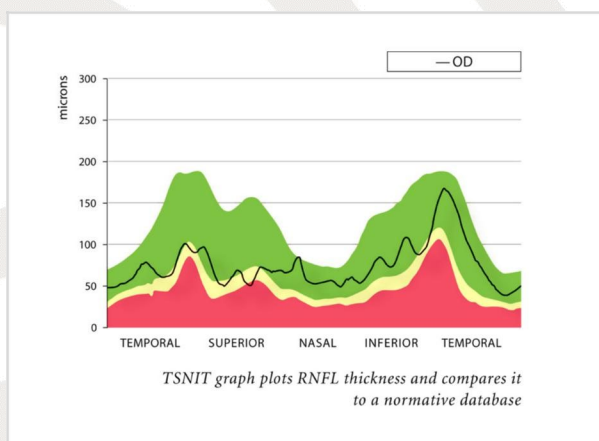
With Cirrus HD-OCT's ability to image the individual layers of retina, your optometrist can see and measure delicate structures and monitor any changes. OCT imaging is the only technology that provides these cross sectional images, so it's the ultimate tool for precise diagnosis and treatment.

What can direct cross-sectional imaging tell my optometrist about glaucoma?

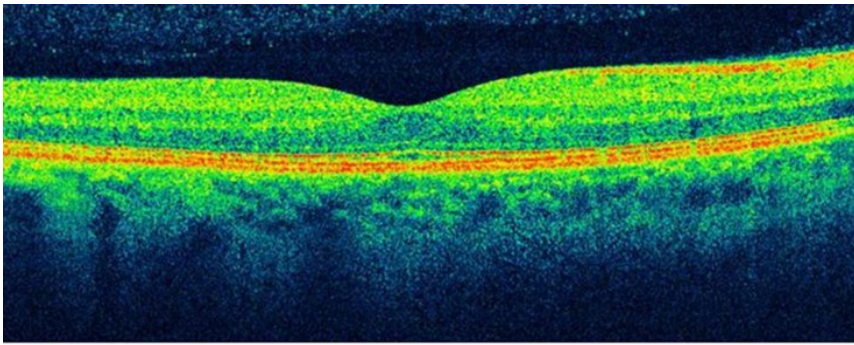
Cirrus HD-OCT enables your optometrist to perform three analyses for glaucoma. The tests are:



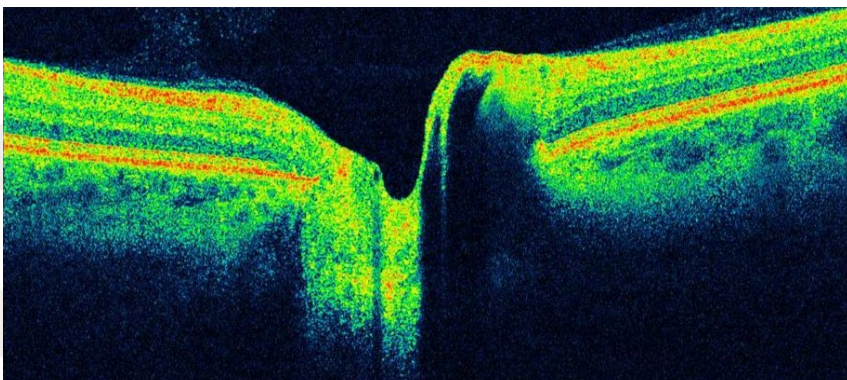
Retinal Nerve Fibre Layer (RNFL) Analysis reveals the thickness of the layer of the retina that contains nerve fibres that travel up the optic nerve. If glaucoma is



TSNIT graph plots RNFL thickness and compares it to a normative database



Macular Thickness Analysis examines the condition and thickness of the macular, which is the part of the retina that provides central vision. Thinning of the macular is a possible sign of glaucoma progression.



Optic Nerve Head Analysis reveals the structure of the optic nerve where it originates in the retina. With glaucoma, the “cup” in the optic nerve may enlarge.

Cirrus HD-OCT: Revealing the complete picture.

Cirrus HD-OCT offers the ultimate benefit for people living with glaucoma - the best possible care. Early detection helps your optometrist to diagnose and control glaucoma before permanent damage is done.

If you have glaucoma or are developing glaucoma, Cirrus HD-OCT enables your optometrist to watch closely for the slightest changes and respond as needed.

Cirrus HD-OCT gives your optometrist high-quality, highly accurate knowledge of your eyes that is simply unavailable with any other technology. The extremely detailed understanding of your eyes can be instrumental and essential to safeguarding your vision for many years to come.

