

Macular Thickness Analysis examines the condition and thickness of the macula, which is the part of the retina that provides central vision. Thinning of the macula is 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 doctor to diagnose and control glaucoma before permanent damage is done.

If you have glaucoma or are developing glaucoma, Cirrus HD-OCT enables your doctor to watch closely for the slightest changes and respond as needed. Cirrus HD-OCT gives your doctor high-quality, highly accurate knowledge of your eyes that is simply unavailable with any other technology. This extremely detailed understanding of your eyes can be instrumental and essential in safeguarding your vision for many years to come.

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

For this procedure, your doctor 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 doctor to clearly see the internal structures of your eye, so problems can be treated before they progress. The unique view that your doctor 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 doctor 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 doctor what is *below the surface*.

Does this type of image help your doctor?

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.





NFL: Nerve fibre layer
ILM: Inner limiting membrane
GCL: Ganglion cell layer
IPL: Inner plexiform layer
INL: Inner nuclear layer
OPL: Outer plexiform layer
ONL: Outer nuclear layer
ELM: External limiting membrane

IS: Photo receptor inner segment
 OS: Photo receptor outer segment
 IS/OS: Interface between PR inner & outer segment
 OPR: Outer PR/RPE complex

RPE: Retinal pigment epithelium + Bruch's membrane

This is 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 the retina, your doctor 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 doctor about glaucoma?

Cirrus HD-OCT enables your doctor 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 present, this layer may gradually lose thickness.



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