

Nerve-Fiber-Layer Analysis

Early in the disease process of glaucoma, individual nerve fibers in the eye's optic nerve are lost, causing an associated pattern of nerve-fiber-layer thinning. This problem can later translate into loss of tissue at the optic nerve head, resulting in visual field defects and, ultimately, loss of vision.

New techniques have been devised to help measure the thickness of the nerve fiber layer, helping ophthalmologists (Eye M.D.s) diagnose glaucoma earlier and monitor progression of the disease.

One technique used to measure the nerve fiber layer is called **scanning laser polarimetry**, which utilizes a device called a GDx scanner. Another technique uses a low-power laser light and a process called **optical coherence tomography (OCT)**. These new imaging techniques can help provide an objective measurement of the nerve fiber layer, enhancing the ability to effectively diagnose and monitor glaucoma.

Both tests are done in the ophthalmologist's office. During these tests, the patient is required only to remain still while the image is scanned.