

### **Visual Field Testing**

A visual field test measures how much 'side' vision you have. It is a straightforward test, painless, and does not involve eye drops. Essentially lights of varying intensity are flashed on, and you have to press a button whenever you see the light. Your head is kept still, and you have to rest your chin on a chin rest. The lights are bright or dim at different stages of the test. Some of the flashes are purely to check you are concentrating.

The computer will then plot an actual map of your field of vision so that your eye doctor can interpret this map in conjunction with other examination tests in order to understand how well your optic nerve is functioning.

### **Pachymetry (CCT or central corneal thickness)**

This measures the thickness of the cornea or the clear window covering the coloured part of the eye. This test is generally only required once.

The Pachymetry Test is a simple, quick and painless way of accurately measuring your corneal thickness. The test is performed by first placing some drops in your eyes to make sure they are numb and then lightly touching the cornea with a "pencil like" probe that uses sound waves to precisely measure your corneal thickness.

Corneal thickness is important because it can alter the accuracy of the measurement of Intraocular Pressure, potentially causing doctors to delay necessary treatment in some cases or causing doctors to treat normal people unnecessarily in other cases. Your actual Intraocular Pressure may be **UNDERESTIMATED** if you have thin corneas and it may be **OVERESTIMATED** if you have thicker corneas.

### **Ocular Coherence Tomography (OCT)**

Retinal nerve fibre layer defect, which may present many years prior to visual field damage, is an important sign of primary open angle glaucoma. Early diagnosis has been emphasized in the treatment of glaucoma.

The OCT is a method called "optical coherence tomography" that is capable of creating digital images through the use of special beams of light in order to create a contour map of the optic nerve and measure the retinal nerve fiber thickness much in the same way that a CT Scan is able to digitize and analyze tissues throughout your body.

The goal of OCT is to give your doctor the ability to detect the slightest loss of optic nerve fibres, at the first possible moment, in order to diagnose glaucoma at the earliest possible stage in order to stop the progression of the disease and preserve your vision.

The RTvue which we use here at Clearsight also maps and measures your optic disc and ganglion cell layer of your retina to give an even more accurate analysis.

## **Retinal Photography**

Photographs are taken of the optic nerves. The appearance of the nerves is also an indication as to the presence and progression of glaucoma. In many cases we can do stereo photos to give a better 3D view of the optic nerve head, allowing the doctor to compare the appearance from each visit and see if there is any structural changes which can indicate loss of field of vision. This is a very quick, and painless procedure. The patient stares at a target inside a camera lens and a photo is taken. If the patients pupils are large enough, there is no need for eye drops to dilate the pupils.