Optical Coherence Tomography is

the latest technology in detecting eye conditions at the earliest possible stage. This is due to its unique ability to

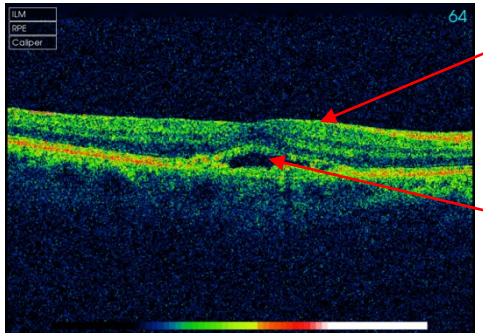
- view structures below the surface of the retina (the light sensitive tissue at the back of the eye) and
- measure the thickness of various retinal tissues.

This cannot be performed with retinal photography, which is a technique for capturing an image of the retinal surface only.

OCT was developed in 1990 as a research tool and has become available commercially since the beginning of 2009. There are many different manufacturers of the OCT, at Martin Reynolds Opticians we use the Topcon 3D-OCT. Topcon are a respected optical instrumentation manufacturer and is the only OCT supplier to the Hospital Eye Service and Moorfields Eye Hospital.

The instrument scans the retina using infrared light this makes it a quick, painless and safe procedure. The image is then analysed and displayed onscreen in a matter of minutes, allowing immediate assessment of the retinal structures.

The ability to see beneath the surface allows us to detect conditions like wet macular degeneration (wet ARMD) far sooner. This condition produces fluid in the deeper retinal tissue layers before the condition is shown on the surface.



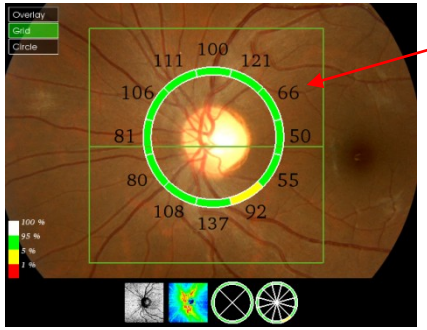
Slight disturbance of retinal surface, imperceptible to the naked eye.

Fluid accumulating in the deeper retinal tissue. Diagnosis: Wet ARMD

Early detection results in prompt treatment with the latest drugs.

The ability to measure thickness of retinal tissue has been of greatest use in the detection of open angle glaucoma. This is a condition which has a higher occurrence in over 40 year olds. Family history does increase the risk. Glaucoma is a progressive condition in which nerve fibres are lost. This prevents the transfer of information from the eye to the brain leading to blind spots in the visual field. There is currently no cure for open angle glaucoma, but we can slow the progression with drugs.

Increasing awareness and knowledge has allowed us to improve the detection of the condition, however it has always been based on subjective information. Now with OCT we can measure the thickness of the nerve fibre layer. This allows us to detect glaucoma sooner (as nerve fibre death thins the nerve fibre layer) and with greater accuracy when compared to conventional techniques



Retinal Nerve Fibre Layer thickness measurement in micrometres enables us to detect Glaucoma with greater sensitivity.

At £35 the OCT represents value for money as other practitioners charge approx £50 for the same. The reduced charge is our commitment to provide you with the best eyecare.

At Martin Reynolds Opticians we are at the forefront of innovation, being one of the first to take advantage of this new technology. However we do understand some of the more established techniques are the best, so we use the best of traditional and advanced techniques to provide the most comprehensive eye examination we can.

At Martin Reynolds Opticians we value you and your vision.

To book an appointment come in to the practice or phone us on 01279 757767.