

Intra Ocular Pressure (IOP)

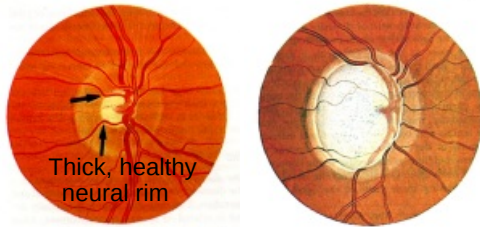
The fluid inside the eye exerts a pressure. If this pressure is too high it will start to damage the retinal nerve fibres carrying the visual images to the brain. However, as a stand alone test, measuring Intra-Ocular Pressure is of little value since some people have higher than normal pressure but DO NOT develop glaucoma, while others have intra-ocular pressure within the range considered normal and STILL develop the disease. So while it is important to measure intra ocular pressure, it is how the result relates to other tests that is important.

Corneal Thickness and IOP (Pachymetry)

It is now recognised thicker corneas induce a higher IOP reading. NICE recommend adjusting IOP measures for corneal thickness. While not commonly done in community practice, at Aarons we routinely measure corneal thickness (Pachymetry) to adjust IOP readings ensuring patients are not referred inappropriately.

Optic Nerve Assessment

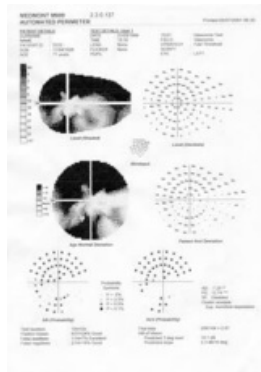
Arguably the most important 'traditional' technique for diagnosing glaucoma is examination of the optic nerve at the back of the eye. We always use the 'Volk Lens' at a slit lamp in preference to the old fashioned ophthalmoscope as the Volk gives a clearer, 3D view, even through cataracts.



In glaucoma the retinal nerve fibres, making up the pink neural rim of the disc, are destroyed. The neural rim becomes gradually thinner as glaucoma takes hold.

Fields of Vision

The third 'traditional' test for glaucoma is the field test. If nerves in the optic disc are destroyed by glaucoma the part of your peripheral vision these nerves served will be lost. SO.... Loss of peripheral vision comes secondarily to nerve fibre loss. Unfortunately, fields are notoriously unreliable as the patient tires and responds incorrectly. Consequently by the time a field loss is definite, quite a lot of nerves have been lost. While we can strive to stop glaucoma getting worse we can never recover the vision lost.

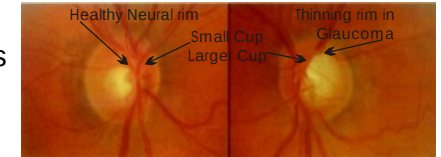


Advanced Technology and Training

Advanced technologies, not necessarily funded by the NHS, and increased skill levels of some optometrists improve the detection, monitoring and treatment of glaucoma.

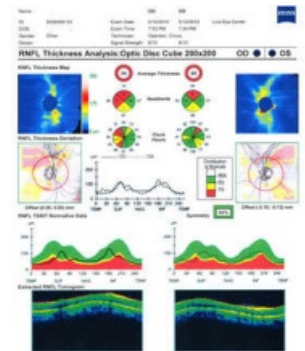
Optic Nerve Photography

While we have provided disc photography for over 15 years it remains a very good way of diagnosing and monitoring progression. The ability to compare photos over time allows much finer discrimination of subtle optic nerve changes.



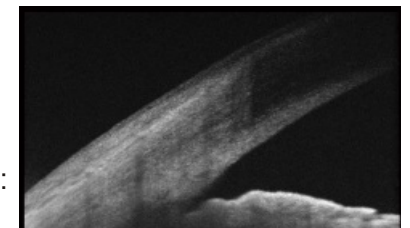
Retinal Nerve Laser Mapping

We now have a Laser Tomographer which scans the retina around the optic nerve, where the glaucoma damage starts. This painless and quick technique gives a thickness map of the Retinal Nerves. This technology gives information not available with 'traditional' NHS techniques. The technique actually evaluates the site of damage before the patient experiences visual loss on a field screener.



Drainage Angles

Other advanced laser techniques also assesses corneal thickness as well as monitoring, non-invasively, the fluid drainage angle allowing us to assess far more accurately a specific sort of glaucoma: Angle Closure Glaucoma.



Medical, Independent Prescribing, Optometrists

It is now an official policy at Aarons to only employ Medical, Independent Prescribing, Optometrists. With advanced training and accreditation these optometrists are better able to detect subtle changes and secondary glaucomas such as Pigmentary Glaucoma and Pseudo-exfoliation. We also treat some patients directly without the need for referral.