

OPD-Scan Wavefront Case Study: A Developing Cataract

Below is an example of the OPD-Scan's Diagnostic Wavefront application. The printout shows six maps that are organized in the following manner: Corneal information in the top row, Refractive information in the middle row and Uncorrectable Aberrations (Higher Order Wavefront) in the bottom row.



Corneal Information

The corneal information from the Axial and Instantaneous (Tangential) maps show an unremarkable cornea with a small amount of astigmatism.

Refractive Information

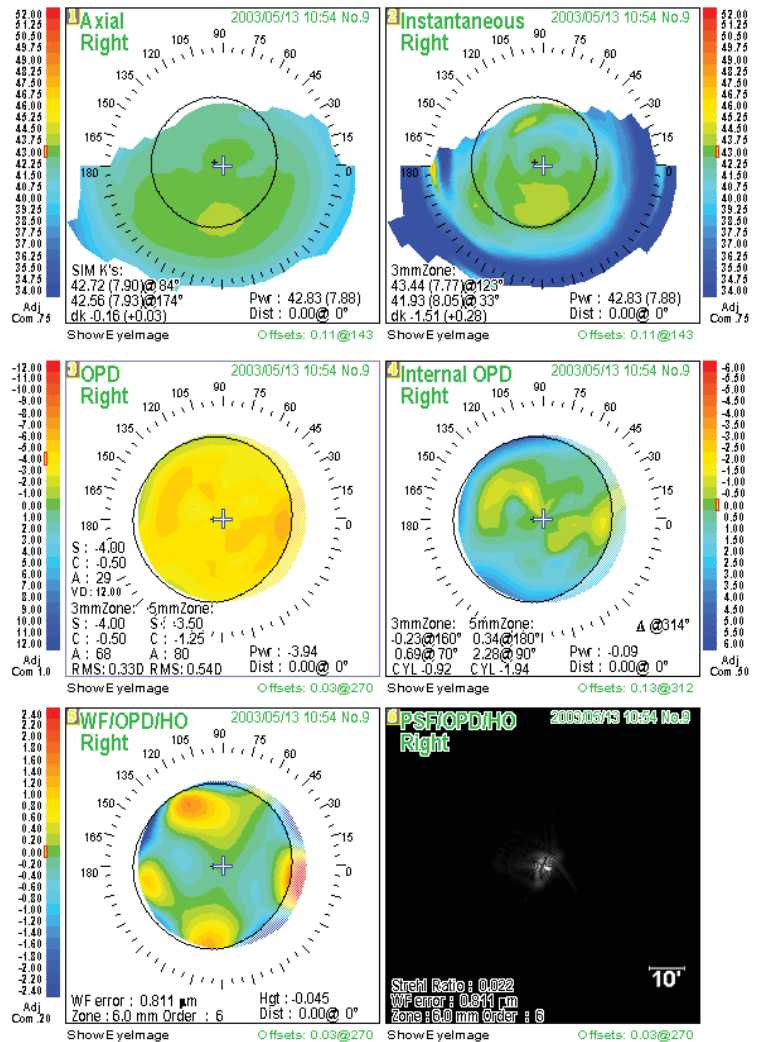
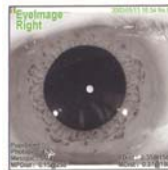
The OPD Map shows a myopic eye with some irregularity. This irregularity is more extreme in the periphery as seen in the OPD Map and quantified by the RMS values of 0.33D at 3mm and 0.54D at 5mm.

The Internal OPD map indicates that this irregularity is coming from the internal refractive components of the optical system. This is reinforced by the fact that there is no irregularity from the corneal topography maps.

Uncorrectable Aberrations

The Higher Order Wavefront Map shows some aberrations around the periphery of the wavefront map. These aberrations are caused by the internal optical irregularities shown in the internal OPD Map. The Point Spread Function (PSF), at right simulates what a point of light would look like to this patient when their sphere and cylinder is corrected. This is a case where the lens is the cause of visual degradation due to early development of cortical cataracts. The clinician can now quantify the source of visual symptoms.

-The eye image from the OPD-Scan clearly shows a developing cortical cataract.



Exam	SPH	CYL	AXIS	SimK1	SimK2	dK	e(Q)@6.0mm	Pupil [mm]
GR	-4.00	-0.50	29	42.72 (7.90)@84	42.56 (7.93)@174	-0.16(+0.03)	0.54(-0.29)	4.53 5.74 MPdst 0.15@250
Cornea Index: n=1.3375 (Ax,Ins), n=1.3760 (Ref,TRef) Q: 6.0mm λ: 587.6nm								
Mapset: INNOVA OPD-Station Version 1.00Ev22Demo(CN 1.00) NIDEK								

* Based on 60 month lease. Limited quantity available.

Seeing Hypertension?

Be Sure of it

The Heine Blood Pressure Kit makes accurate measurements easy.

The G5 sphygmomanometer has exceptionally strong housing construction with triple-mounted, shockproof movement. A microfilter protects the valve and movement and an oversized inflator speeds up cuff inflation for speedy measurements.

The Gamma 2.2 stethoscope is designed to provide excellent acoustic performance. The integrated twin-spring design and embedded thermoplastic ring optimizes durability and comfort.



** Prices subject to change without notice.