

optovue solix Essential

Next generation  
imaging from  
cornea to choroid



  
**VISIONIX**

INNOVATION TO UNLOCK YOUR POTENTIAL

from  **Grafton Optical**

# Enhanced reporting helps you save sight

With Optovue Solix Essential you have everything you need for your patients and your practice.

Optovue Solix Essential is a technology built upon a proven foundation of high-speed Spectral Domain OCT. The Optovue Solix Essential offers state-of-the-art imaging from the cornea to the choroid with exclusive technology that will change your approach to disease diagnosis and management.

## **Retina**

- New advanced HD retina scan patterns for maximum resolution and post processing alignment.
- Tracked high density scans with SSADA & MCT with vessel to vessel post processing alignment produces a superior platform for change as it minimises scan location and movement effects during acquisition and allows for high density registration.

## **Glaucoma**

- Optovue Solix Essential takes glaucoma scanning to the next level incorporating Dual Track, SSADA, MCT, and AI segmentation along with new features to make it an Advanced glaucoma system.

## **Anterior Segment**

- Comprehensive anterior evaluation of pathologies such as keratoconus and dry eye symptoms utilizing pachymetry, epithelial thickness mapping and 3D EnFace imaging.

## **iWellness and AngioWellness**

- iWellness capabilities that have become part of a new standard of care for patients suspected of retinal pathologies and/or glaucoma. The new AngioWellness scan enables comprehensive assessment of your diabetic patients and glaucoma suspects by combining structural information on retinal and ganglion cell thickness with objective metrics on retinal vasculature. Utilize FAZ Analytics to uncover early indicators of diabetic changes.

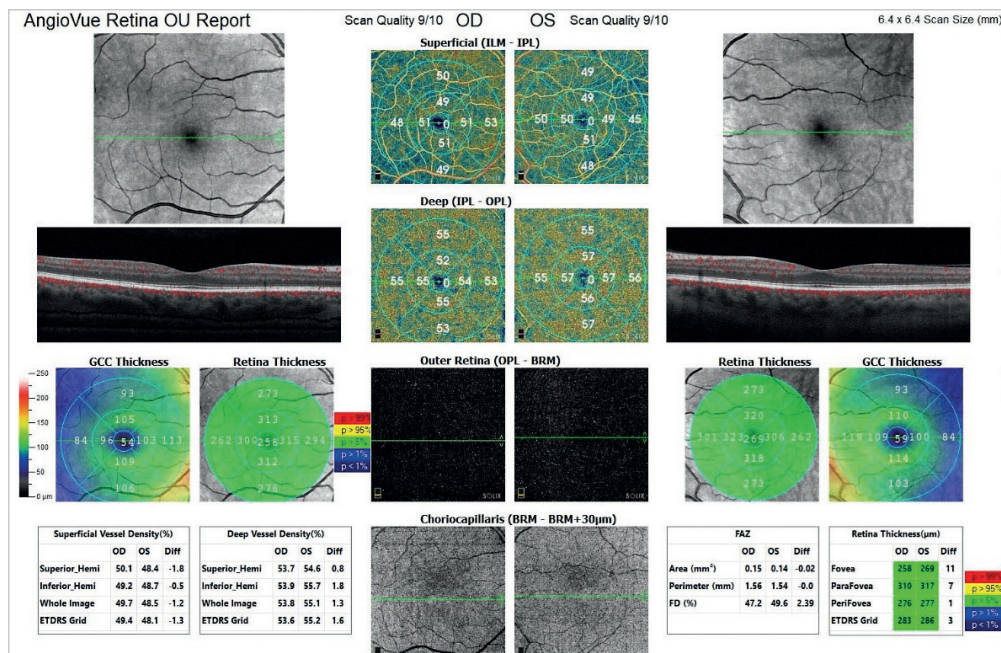
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Optovue extends sincere appreciation to Adil El Maftouhi OD (Centre Rabelais, Lyon, France) for the use of his images throughout this brochure. Unless noted, all images are courtesy of Adil El Maftouhi.

# Retina

Optovue Solix Essential delivers pristine images of retinal structures with unprecedented views enabling confident diagnosis and management of retinal pathologies.

A single scan using SSADA, MCT and 3D PAR 2.0 generates all the necessary images and reports needed for comprehensive retinal analysis. Deep learning segmentation optimises accuracy and quickly provides the clinical data your practice demands.



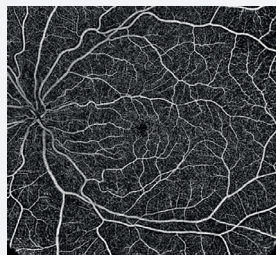
OCT, OCTA, better referrals and practice growth, earlier Diabetic markers

## ANGIOVUE OCTA 16mmX16mm

DualTrac™ Motion Correction Technology with enhanced visualization combines real-time tracking and patented post processing to enable true 3D correction of distortion in all directions for ultra-precise motion correction.

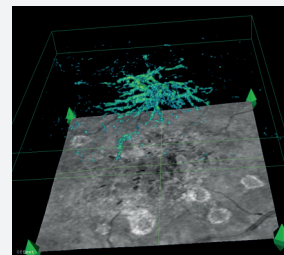
### QuadMontage

AngioVue QuadMontage combines four 9x9mm scans for visualisation of the peripheral retina.

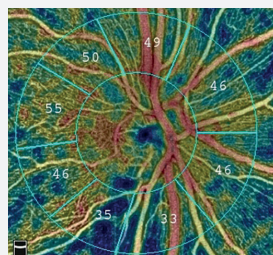


### 3D OCTA

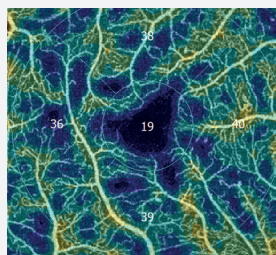
Optovue's exclusive AngioVue 3D OCTA rendering enables real-life visualisation quantification of retinal vasculature



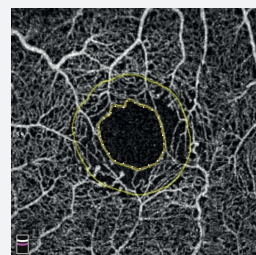
### AngioAnalytics™ OCTA Metrics



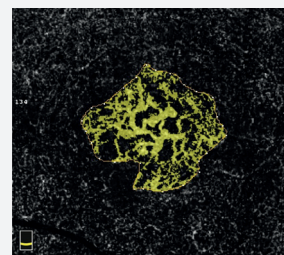
RPC Density



Superficial Density



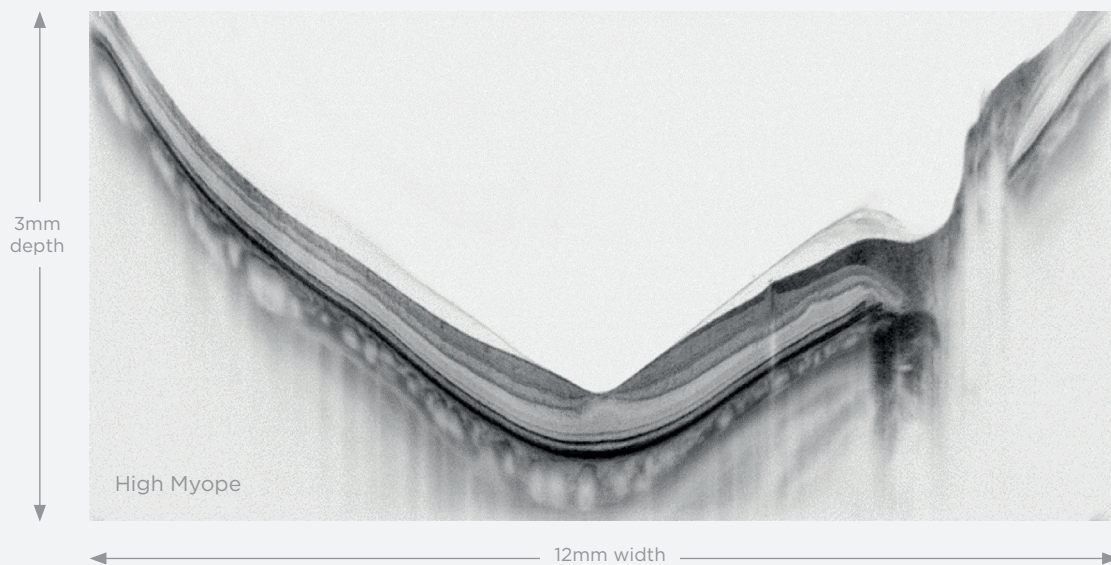
FAZ



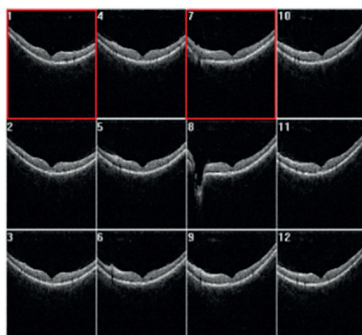
Flow area



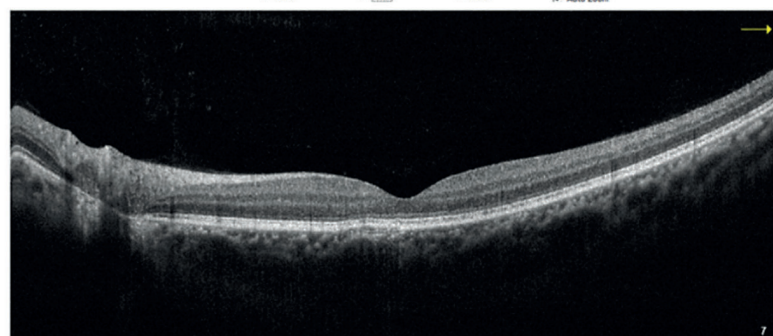
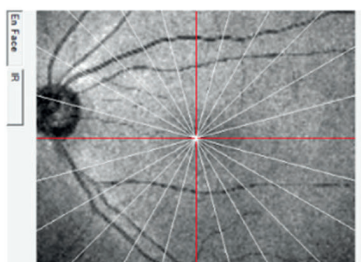
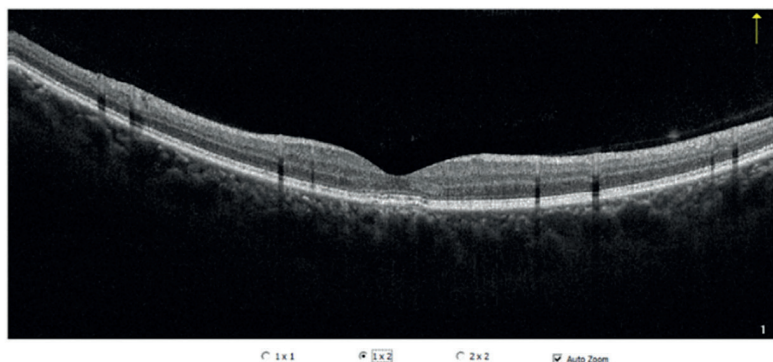
## LINE SCAN



## Radial lines



Scan Quality 10/10



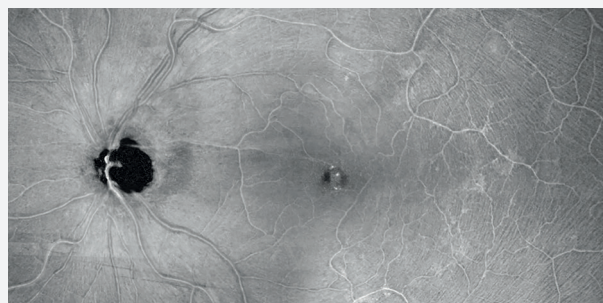
Multi-Averaged 12mm Radial Scan for precision imaging of foveal and macular structure

## EN FACE OCT

### DualMontage

Combine two 9x9 scans for a seamless view of the posterior pole.

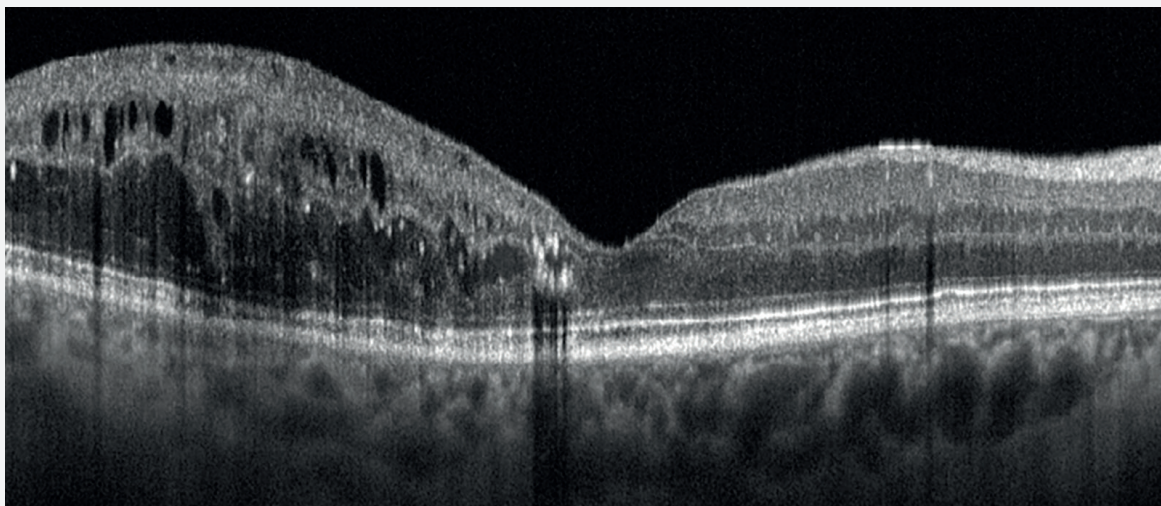
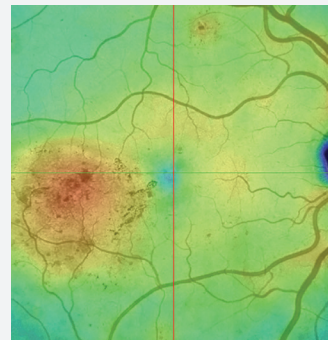
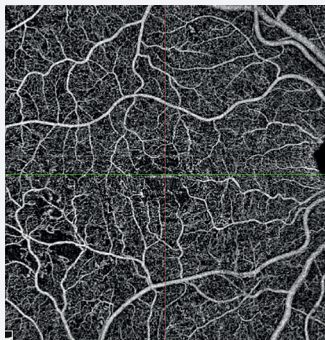
Image courtesy of Alexandra Miere MD, Creteil University Hospital, France





## DIABETIC RETINOPATHY

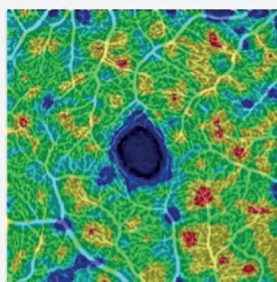
- AngioVue OCTA of the superficial retina 9x9mm
- Retinal thickness map 9x9mm
- Raster scan



## DENSITY MAPPING

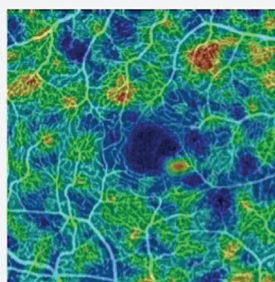
OCTA **capillary perfusion density** maps and **average perfusion density values** provide an easy way to grade progressive vascular change.

Normal



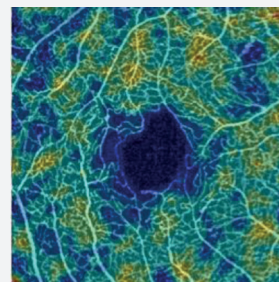
0.2391

Mild NPDR



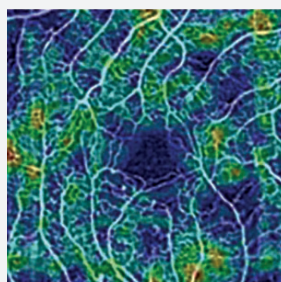
0.1963

Moderate NPDR



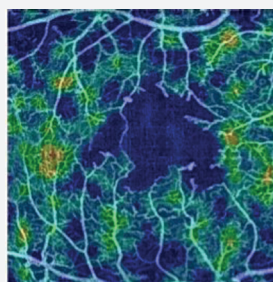
0.1889

Severe NPDR



0.1647

PDR

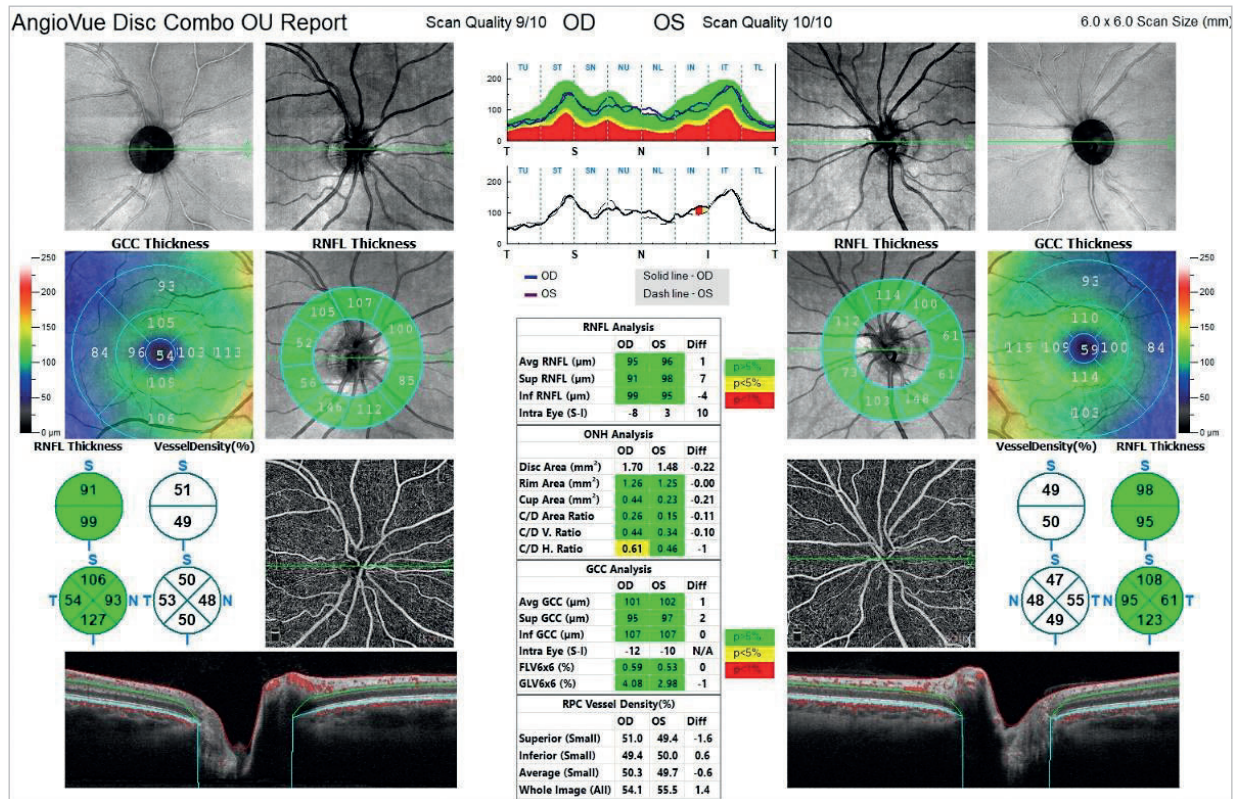


0.1453



# Glaucoma

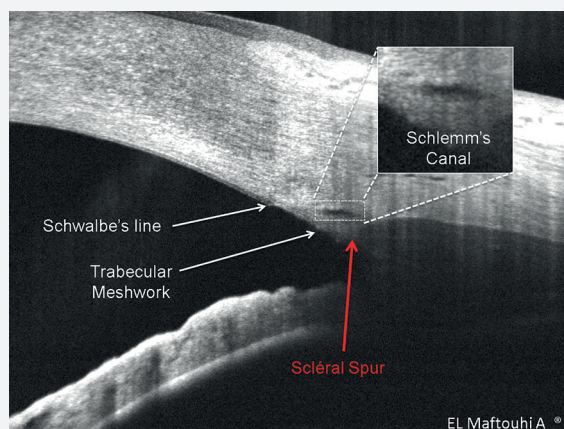
The **Optovue Solix Essential glaucoma package** delivers in-depth analysis that combines structural and vascular images and measurements such as ONH, GCC, FLV, GLV, BMO, and vessel registration with Garway-Heath nerve fiber sectors.



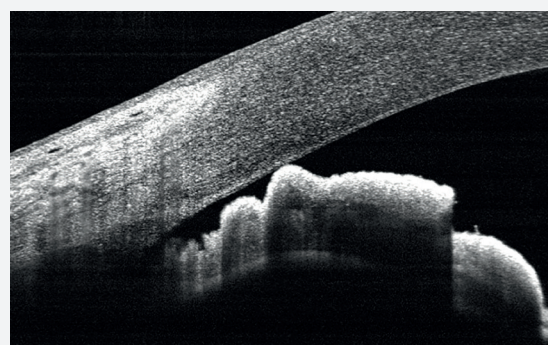
First visit OU report showing optic nerve, RNFL and GCC with RDB and symmetry analysis.

## ANGLE ANALYSIS

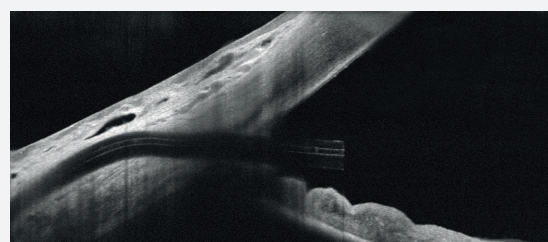
Acquire high-resolution images of the irido-corneal angle to visualize angle structure, the trabecular meshwork and Schlemm's canal. Quantitative measurement tools enable careful assessment of the angle in glaucoma patients.



Open angle



Closed angle



Glaucoma stent in place

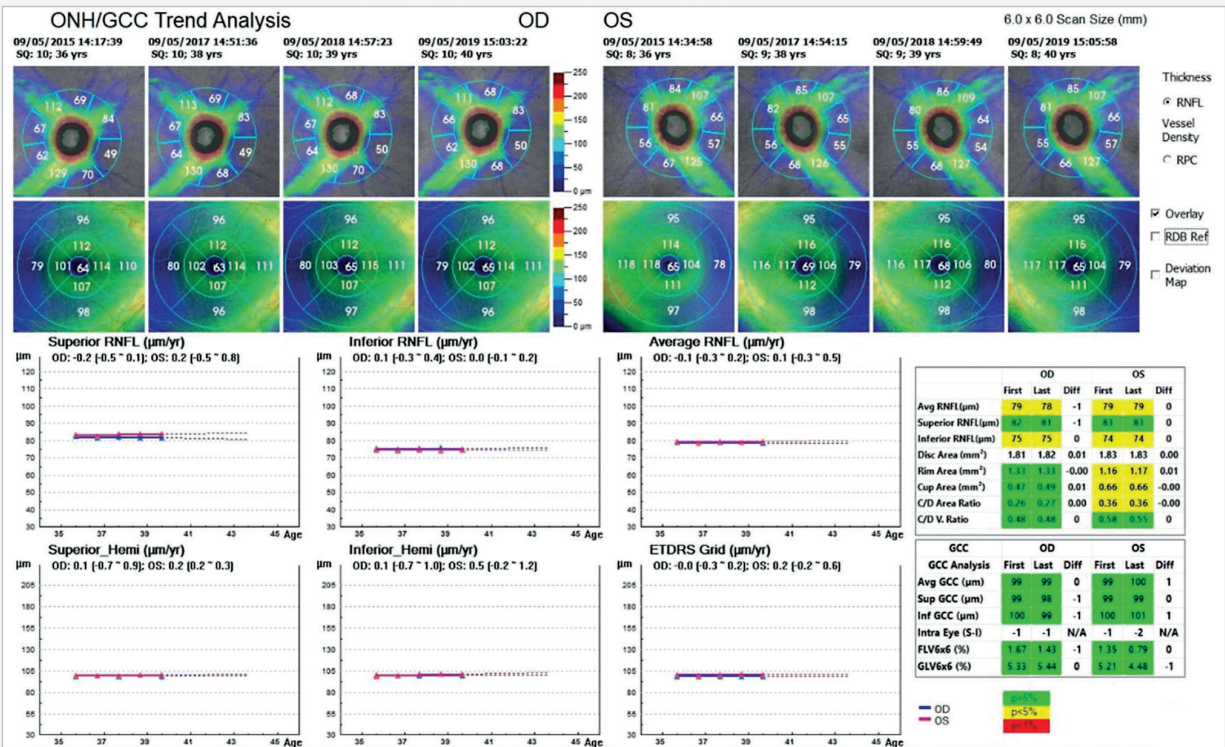
1. Zhang X, Loewen N, Tan O, Greenfield D, Schuman J, Varma R, Huang D. Predicting Development of Glaucomatous Visual Field Conversion Using Baseline Fourier-Domain Optical Coherence Tomography. Am J Ophthalmol. 2016 Mar; 163:29-37.
2. Zhang X, Dastiridou A, Francis BA, et al. Comparison of glaucoma progression detection by optical coherence tomography and visual field. Am J Ophthalmol. 2017; 184: 63- 74.



TREND ANALYSIS

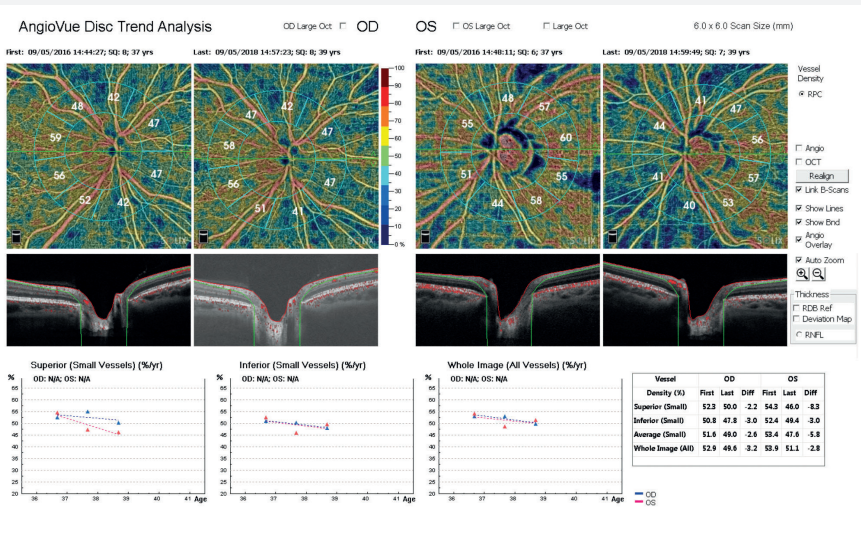
ONH + GCC Trend Analysis Report

Track change and estimate the rate of change in both GCC and RNFL thickness with unparalleled reproducibility to easily assess how quickly a patient's disease is progressing.



AngioDisc Trend Analysis Report

Measure the vessel density of the RPCs, assess visit-to-visit change, and estimate rate of change in glaucoma patients and suspects. Vessel density analysis complements RNFL and GCC analysis and aids in the management of advanced glaucoma – especially in cases where neural structural measurements have reached the measurement floor.



Focal Loss Volume & Global Loss Volume

Optovue's exclusive Focal Loss Volume (FLV%) and Global Loss Volume (GLV%) provide valuable data points to aid in the prediction of visual field conversion in glaucoma suspects<sup>1</sup> and progression in glaucoma patients<sup>2</sup>.

1. Zhang X, Loewen N, Tan O, Greenfield D, Schuman J, Varma R, Huang D. Predicting Development of Glaucomatous Visual Field Conversion Using Baseline Fourier-Domain Optical Coherence Tomography. Am J Ophthalmol. 2016 Mar; 163:29-37.
2. Zhang X, Dastiridou A, Francis BA, et al. Comparison of glaucoma progression detection by optical coherence tomography and visual field. Am J Ophthalmol. 2017; 184: 63- 74.

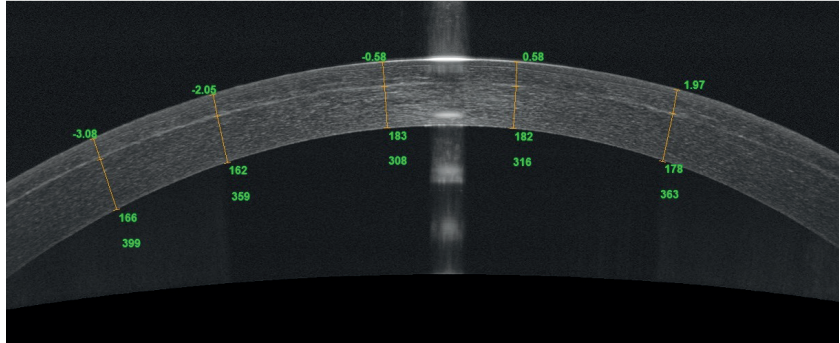
# Anterior segment

## PRK and Post-Myopic PRK

Quickly map corneal thickness with the Pachymetry scan.

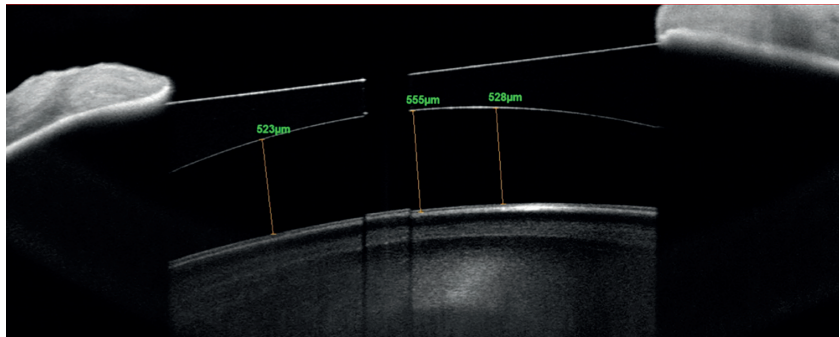
## SMALL INCISION LENTICULE EXTRACTION (SMILE) SURGERY

Visualise and quantify laser incisions with the **Cornea Line scan**.



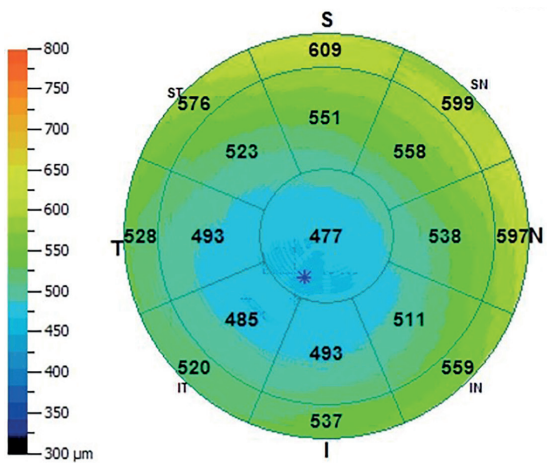
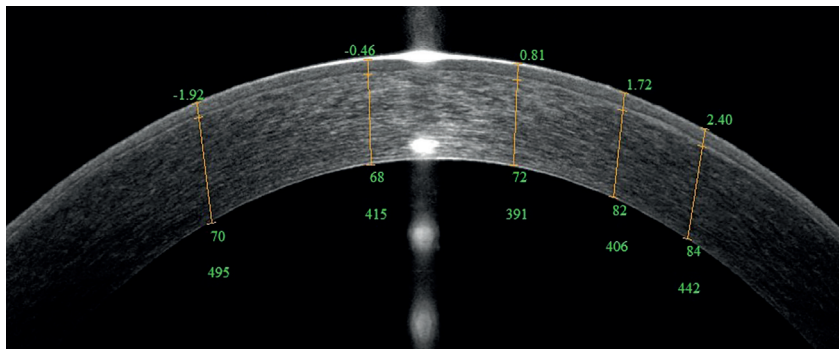
## IMPLANTABLE COLLAMER LENS

Measure collamer lens vault with the **Cornea Line scan**.

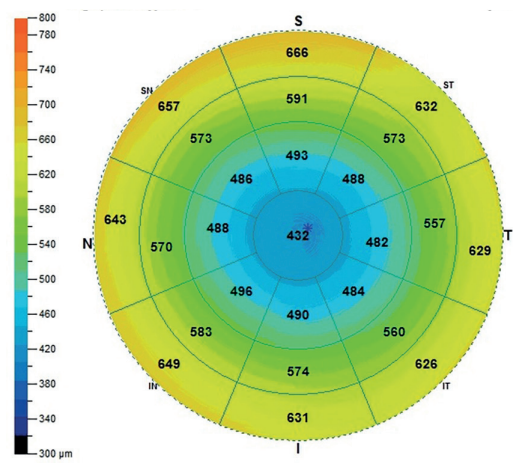


## PHOTOREFRACTIVE KERATECTOMY (PRK)

Assess epithelial thickness following PRK with the Cornea Line scan and map corneal thickness with the Pachymetry scan.



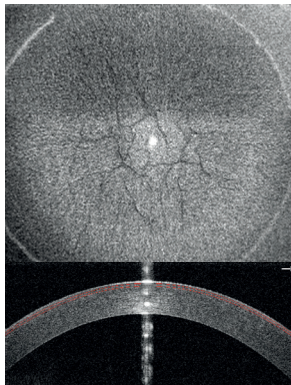
PRK



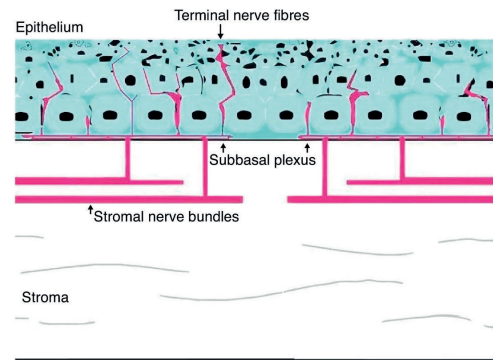
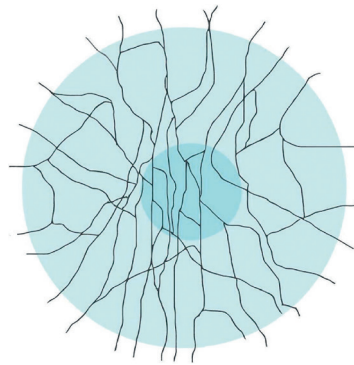
## Post-Myopic PRK



# Anterior OCT Imaging



3D En Face imaging  
post lasik

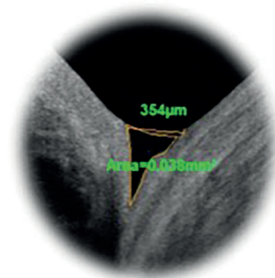


## CORNEAL AND EPITHELIAL THICKNESS MAPPING

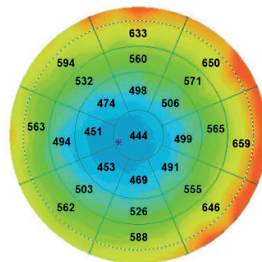
Quantify epithelial, stromal and total corneal thickness with the **10mm Corneal Layer Map**, which features 16 meridians to fully cover the LRS transition zone. Use the Highlight Tool to further appreciate subtle changes in thickness. The Change Analysis report measures changes in thickness between visits.

## DRY EYE

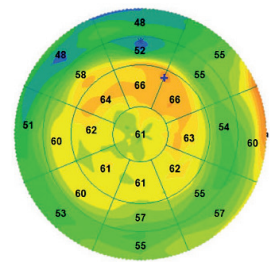
Add new information to the diagnosis and management of dry eye patients.



Tear Meniscus  
measurement



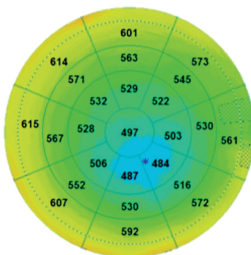
10mm Pachymetry



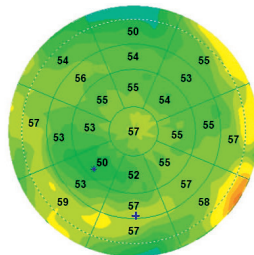
10mm ETM\*

## KERATOCONUS

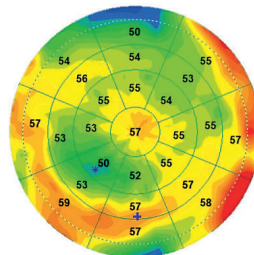
Measure epithelial, stromal and total corneal thickness to aid in disease diagnosis. Pachymetric measurements can be compared to the Coollabs Keratoconus Risk Scoring System to further enhance diagnostic accuracy.



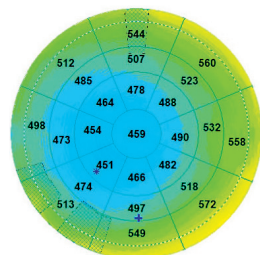
Corneal Pachymetry



ETM\*



Normalized ETM



Stromal Map

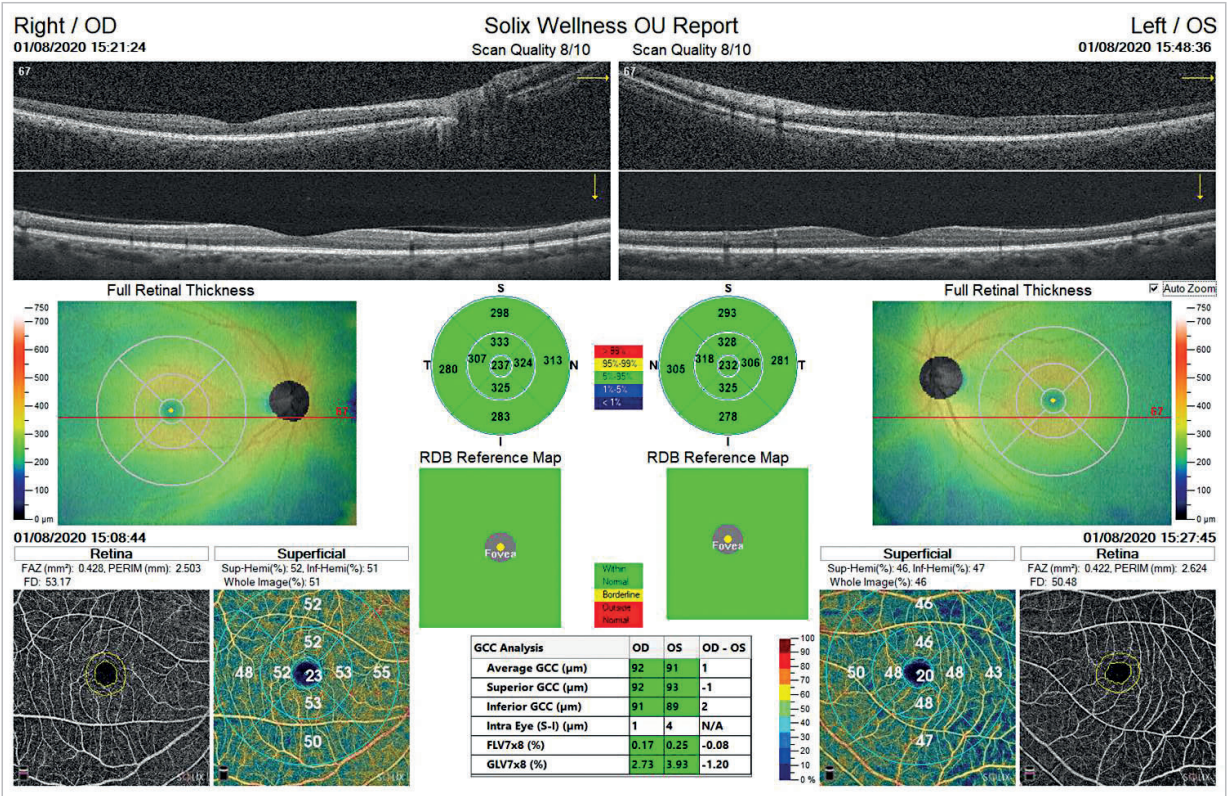
\*Epithelial thickness map

Images courtesy of Adil El Maftouhi, Centre Rabelais, Lyon, France

# Wellness protocols

The iWellness and AngioWellness protocols can reveal the need for more extensive imaging, as well as streamline the exam process, both by quickly confirming normal function and by aiding in more efficient diagnosis of pathology. In addition, wellness programs improve patient involvement and retention for practice differentiation and growth.

OCT wellness generates a single, comprehensive report to promote better overall eye health. The report includes a 12x9mm structural scan that optimizes metrics on retinal thickness and ganglion cell thickness to the superior/inferior arches. High-resolution B-scans provide excellent visualization of retinal structures.





# Technical specifications

## OCT Imaging | Retina

Scan Speed	120,000
Axial Resolution	5µm (in tissue)
Lateral Resolution	15µm (in tissue)
Scan Depth	Up to 3 mm (regular mode)
Scan Width	3mm - 12mm
Dioptic Range	-15D to +15D
Pupil Size	≥ 2.0 mm

## OCTA Imaging

Retina Scan Sizes	3x3mm, 6.4x6.4mm, 9x9mm and 12x12mm
Disc Scan Size	6x6mm
AngioVue Montage	Two 9x9mm scans, four 9x9mm scans - 6x6 + 6.4x6.4

## OCT Imaging | Anterior Segment

Lateral Resolution	18µm (in tissue)
Scan Depth	Up to 3 mm (regular lens)
Scan Length	2mm - 10mm

## Electrical and Physical Specifications

Weight	95 kg (210 lbs)
Instrument Dimensions	W 1072mm X D 600mm x H 610mm (W 39.4 x D 31.5 x H 59 inches)
Table Dimensions	W 952mm x D 600mm x H 913mm (W 36.2 x D 23.6 x H 35.9 inches)
Fixation	External and 13-point internal
Electrical Rating	AC 100V-240V

## Computer/Networking Specifications

Operating System	Windows 10
CPU	Intel Core i7-8700 processor or above
RAM	32GB DDR4 or more
Hard Drive	Solid state drive 256GB for operating system Main drive 4TB Back-up drive 4TB
DICOM	DICOM MWL, DICOM storage
Networking	NetVue Pro Review Software - Up to 10 Workstations



INNOVATION TO UNLOCK YOUR POTENTIAL

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