optovue solix

Next generation FullRange® Spectral Domain OCT

VISIONIX

INNOVATION TO UNLOCK YOUR POTENTIAL

Enhanced reporting helps you save sight

Optovue Solix is the next generation FullRange® OCT and OCT-Angiography with a multitude of imaging options, enhanced metrics, integrated fundus camera, and external IR imaging.

Optovue Solix is a new technology built upon a proven foundation of high-speed Spectral Domain OCT. With 120kHz scan speed, higher scan density, and better precision this FullRange OCT delivers unparalleled data and efficiency.

FullRange Anterior Segment

- FullRange single scan imaging shows entire anterior chamber from the front of the cornea to the anterior surface of the lens or entire Crystaline lens.
- Angle scan with 4-up display enables visualization and quantification of angle structure.
- 10mm Corneal Layer Map shows epithelial, stromal and total corneal thickness with change analysis.
- External IR imaging displays structure of the upper and lower lids.

Glaucoma

- New advanced scans and glaucoma analytics take glaucoma scanning to the next level incorporating Dual Track, SSADA, MCT, and AI segmentation with repeatability and reproducibility 2 times better than before.

FullRange Retina

- FullRange single scan imaging generates all necessary images and data for comprehensive retinal analysis — even in highly myopic patients.
- AngioVue OCTA provides visualization and quantification of retinal vasculature.
- Quad-Montage allows widefield visualization of the peripheral retina.
- 3D OCTA rendering enables visualization of vascular connectivity.

Wellness and AngioWellness

- Wellness capabilities that have become part of a new standard of care for patients suspected of both retinal pathologies and/or glaucoma. The 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.

Source: Unless noted, all images in this document are courtesy of Adil El Maftouhi OD (Centre Rabelais, Lyon, France).

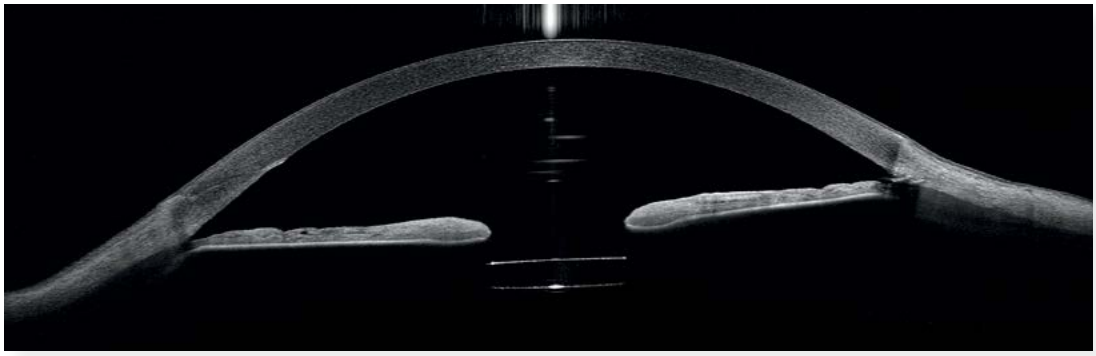
FullRange anterior segment

Optovue Solix FullRange anterior imaging provides stunning views of the entire anterior chamber, from the front surface of the cornea to the anterior surface of the lens.

FULLRANGE ANTERIOR SEGMENT 18X6.25MM

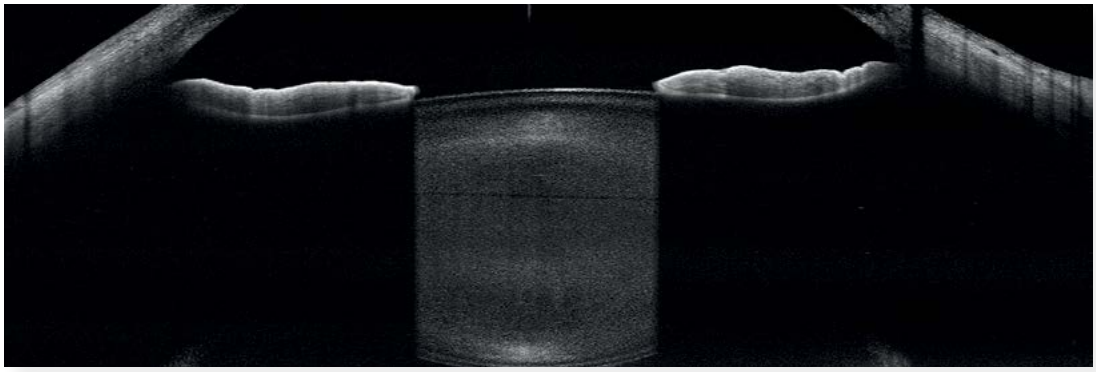
Image the entire anterior chamber with the FullRange scan and use the caliper tools to measure ocular structures.

REFRACTIVE



Visualize and measure placement of implantable lenses.

CATARACT

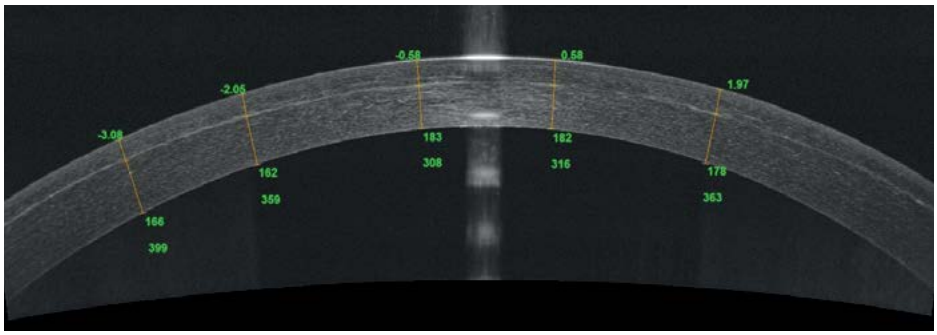


Shift the scan depth to evaluate opacities and measure the size of the lens prior to cataract surgery.

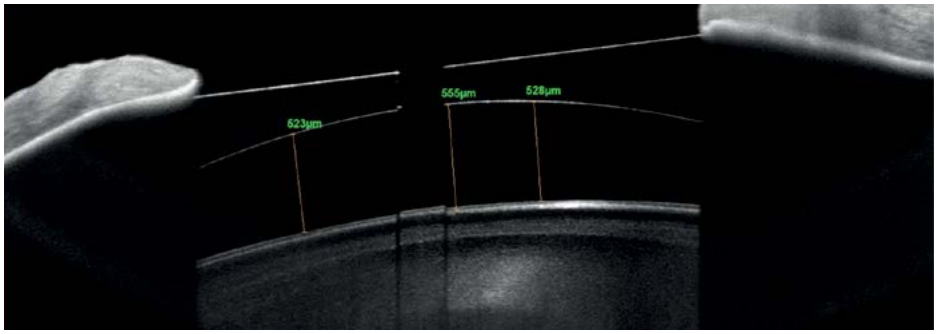
PRK and Post-Myopic PRK

Quickly map corneal thickness with the Pachymetry scan.

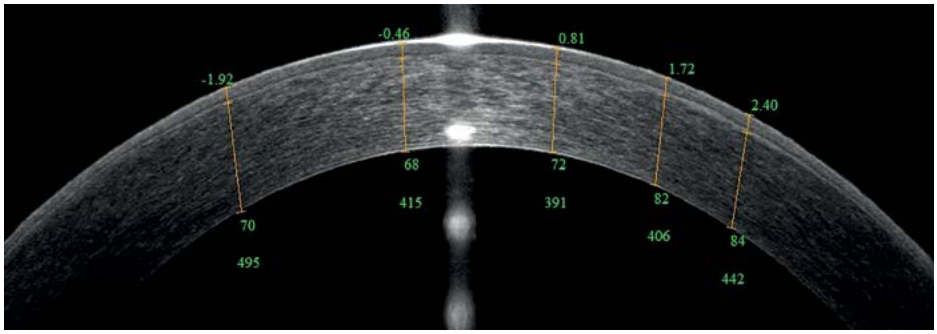
Small Incision Lenticule Extraction (SMILE) Surgery
Visualize and quantify laser incisions with the Cornea Line scan.

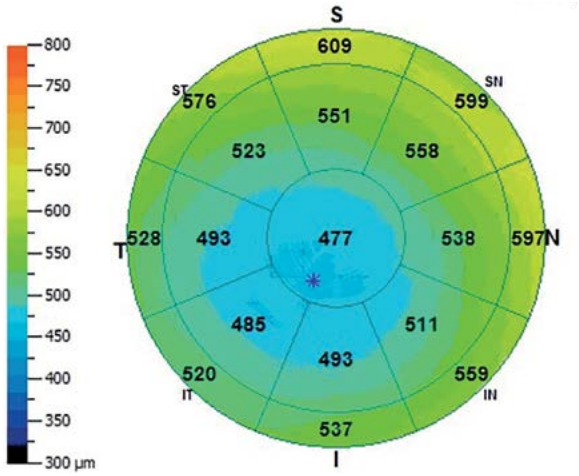


Implantable Collamer Lens
Measure collamer lens vault with the Cornea Line scan.

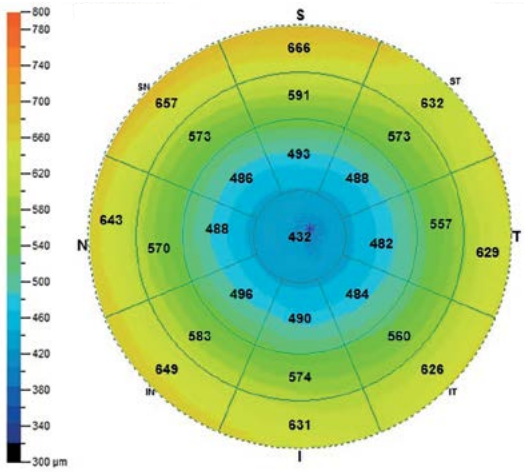


Photorefractive Keratectomy (PRK)
Assess epithelial thickness following PRK with the Cornea Line scan and map corneal thickness with the Pachymetry scan.

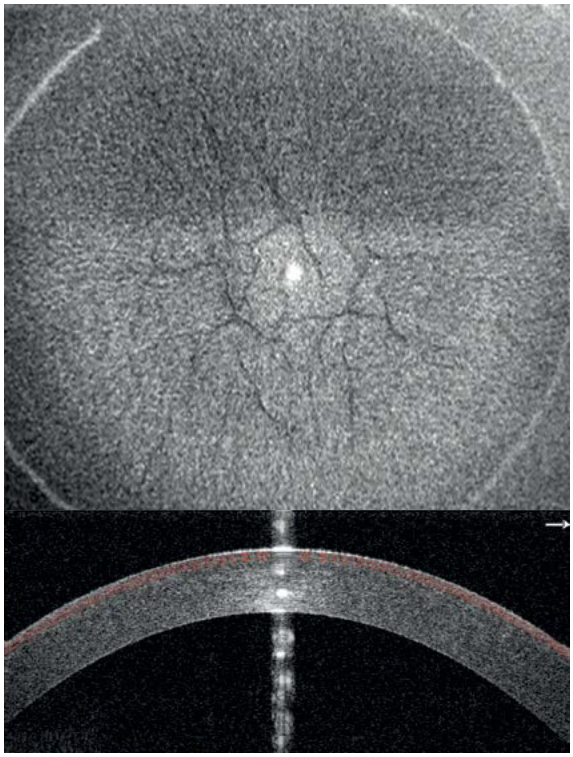




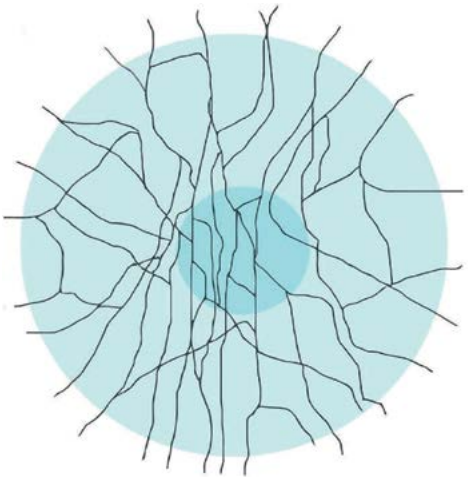
PRK

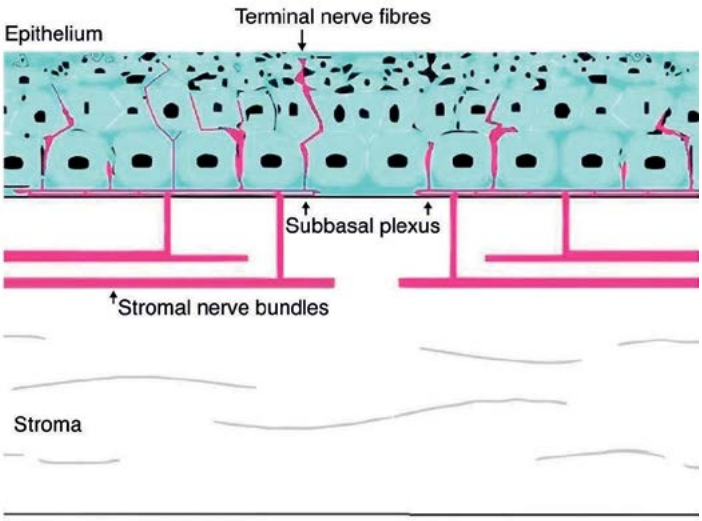


Post-Myopic PRK



3D En Face imaging
post lasik



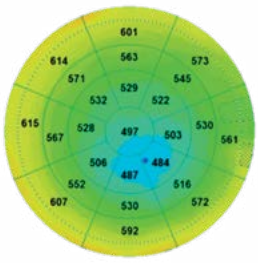


CORNEAL AND EPITHELIAL THICKNESS MAPPING

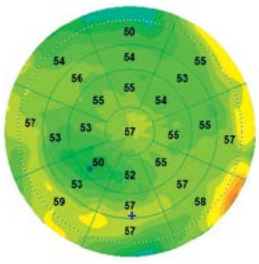
Quantify epithelial, stromal and total corneal thickness with the 10mm Corneal Layer Map, which features 16 meridians to fully cover the LRS transition zone. Use the Highlight Tool to further appreciate subtle changes in thickness. The Change Analysis report measures changes in thickness between visits.

KERATOCONUS

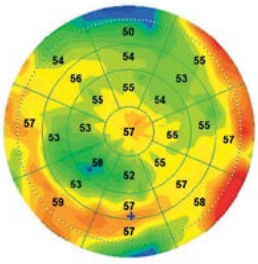
Measure epithelial, stromal and total corneal thickness to aid in disease diagnosis. Pachymetric measurements can be compared to the Coollabs Keratoconus Risk Scoring System to further enhance diagnostic accuracy.



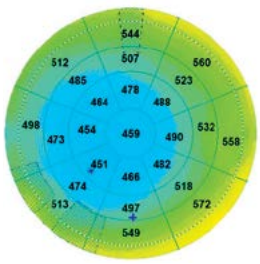
Corneal Pachymetry



ETM*



Normalized ETM

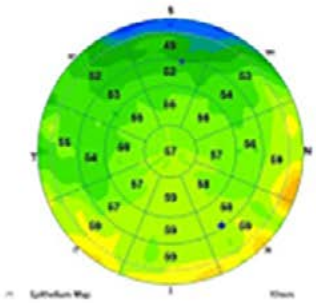


Stromal Map

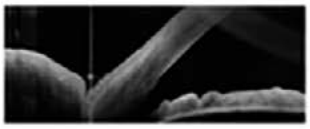
*Epithelial thickness map

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

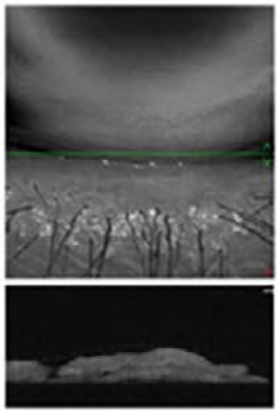
External imaging



10mm Epithelial Thickness Map



Cornea Line Scan



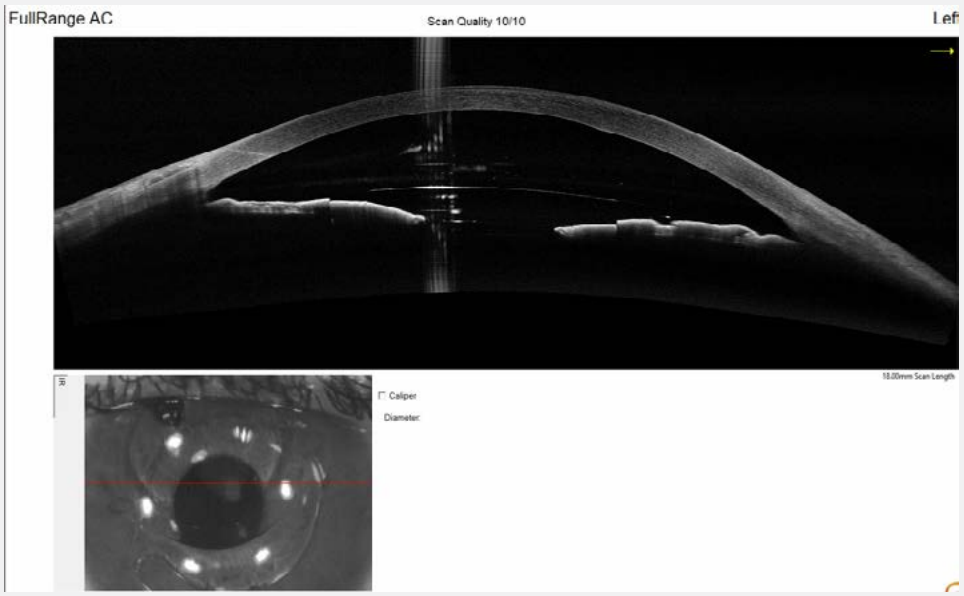
Cornea Cube Scan

External IR Image

External Color Photograph

External Color Photograph with Red Reflex

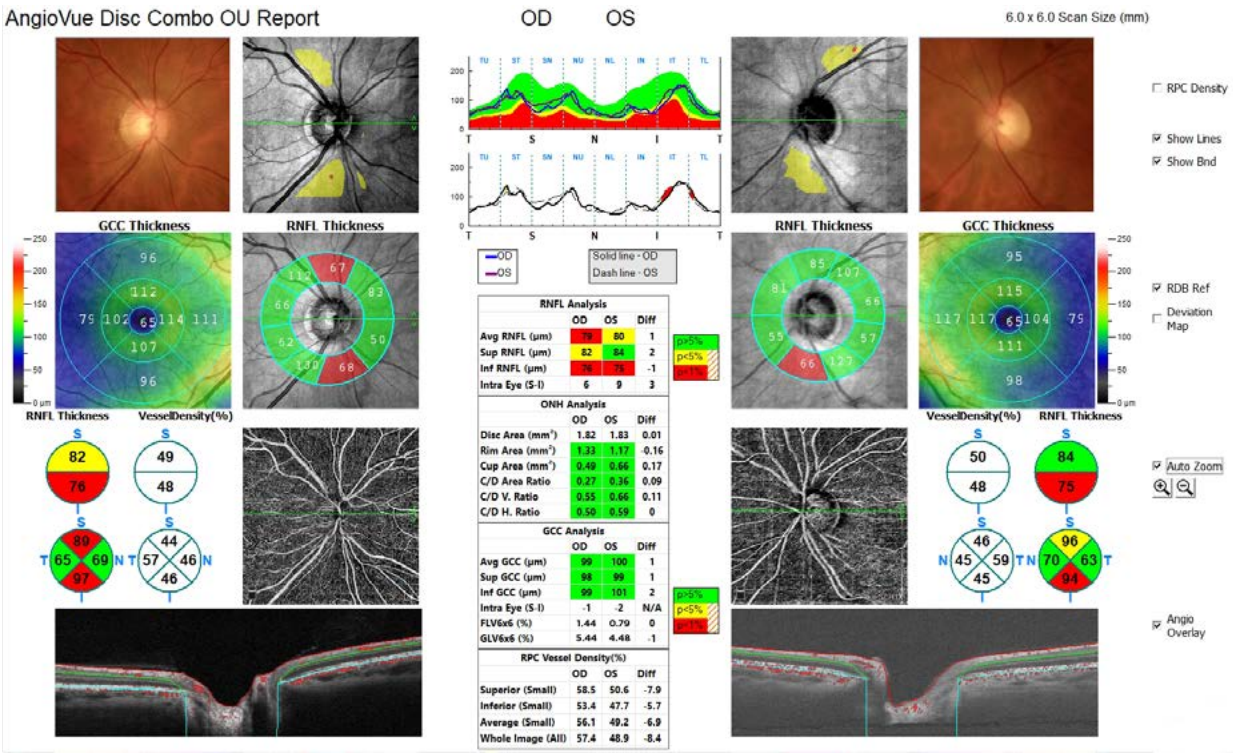
Displaced IOL



Displaced IOL

Glaucoma

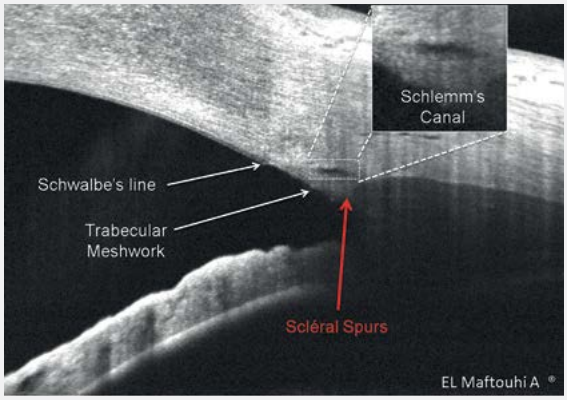
The Optovue Solix glaucoma package delivers in-depth analysis that combines structural and vascular images and measurements such as ONH, GCC, FLV, GLV, BMO, and vessel registration with Garway-Heath nerve fiber mapping.



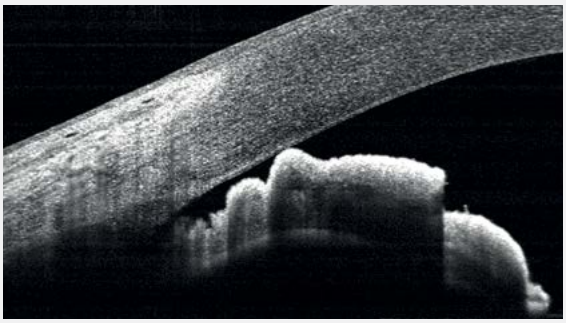
First visit OU report showing optic nerve, RNFL and GCC with RDB and symmetry analysis.

ANGLE ANALYSIS

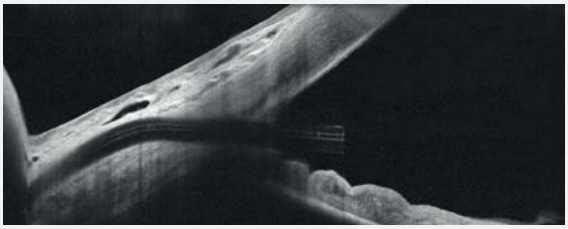
Acquire high-resolution images of the irido-corneal angle to visualize angle structure, the trabecular meshwork and Schlemm's canal. Quantitative measurement tools enable careful assessment of the angle in glaucoma patients.



Open angle



Closed angle



Glaucoma stent in place

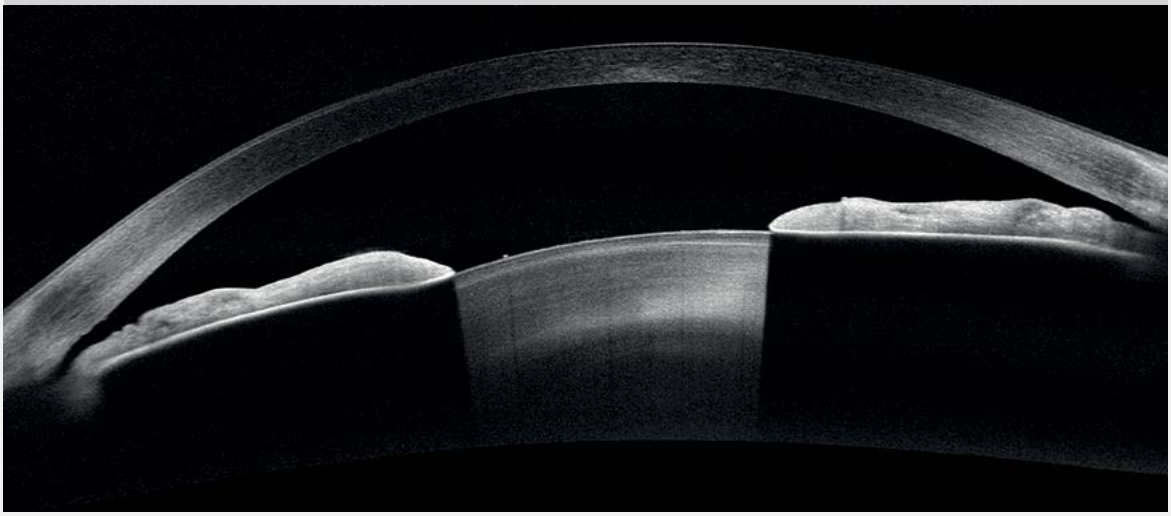
1. Zhang X, Loewen N, Tan O, Greenfield D, Schuman J, Varma R, Huang D. Predicting Development of Glaucomatous Visual Field Conversion Using Baseline Fourier-Domain Optical Coherence Tomography. Am J Ophthalmol. 2016 Mar; 163:29-37.

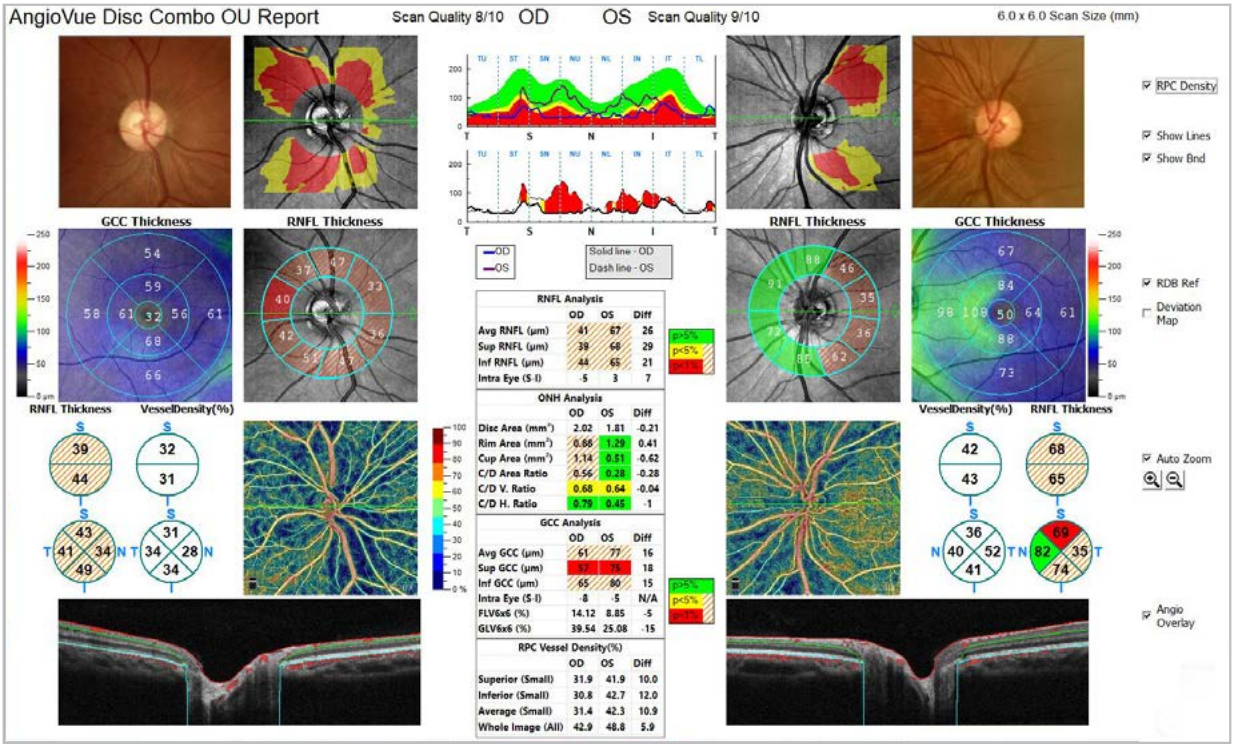
2. Zhang X, Dastiridou A, Francis BA,et al. Comparison of glaucoma progression detection by optical coherence tomography and visual field. Am J Ophthalmol. 2017; 184: 63– 74.

ANTERIOR CHAMBER ANALYSIS

FullRange Anterior Chamber Scan

Visualize and measure anterior chamber structures in angle closure glaucoma, pupil block glaucoma and glaucoma shunt placement with a single scan.

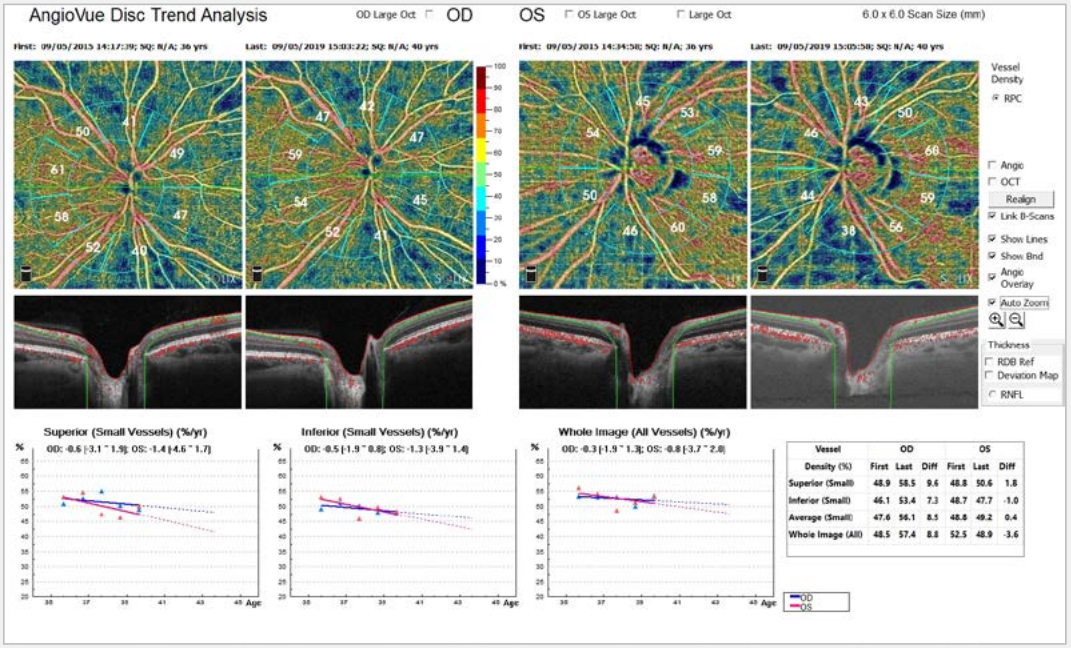




TREND ANALYSIS

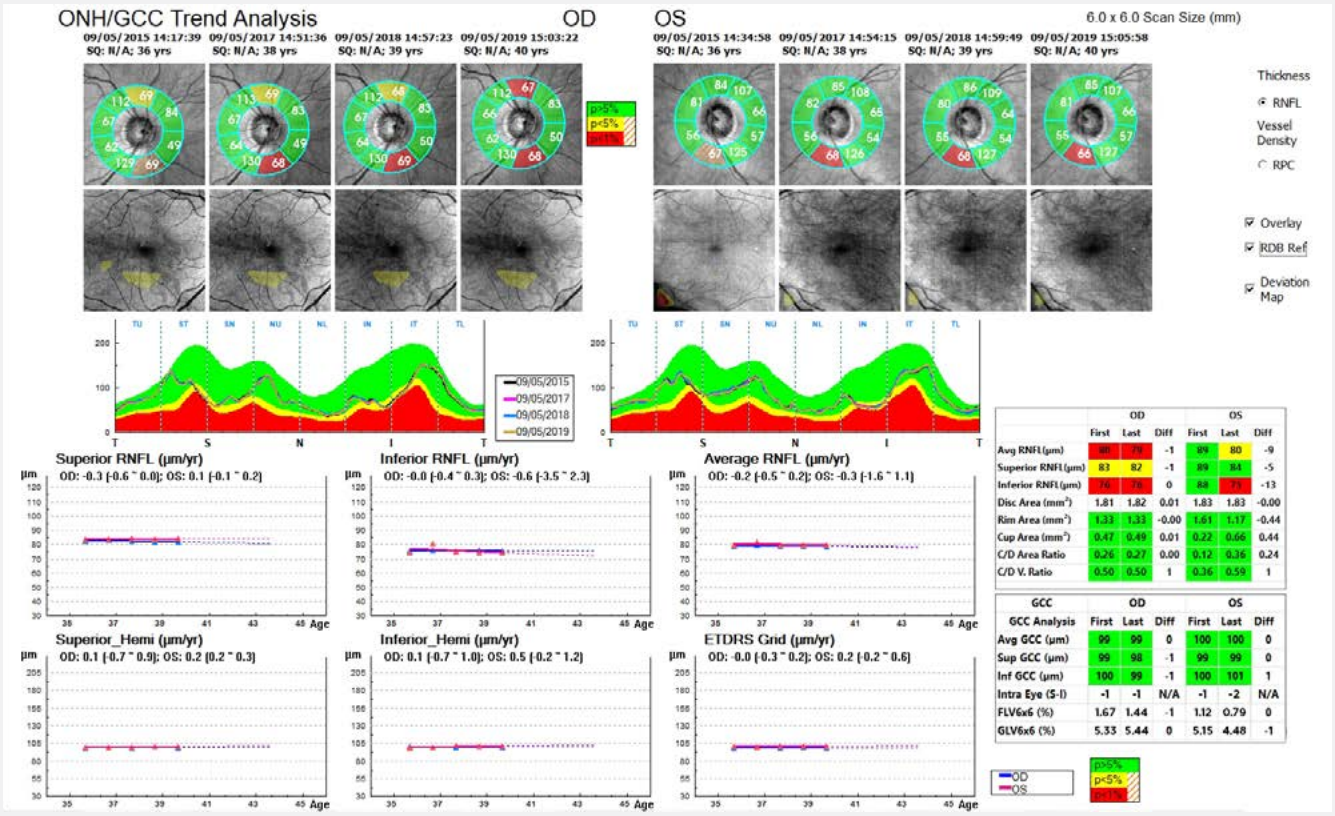
AngioDisc Trend Analysis Report

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.



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.

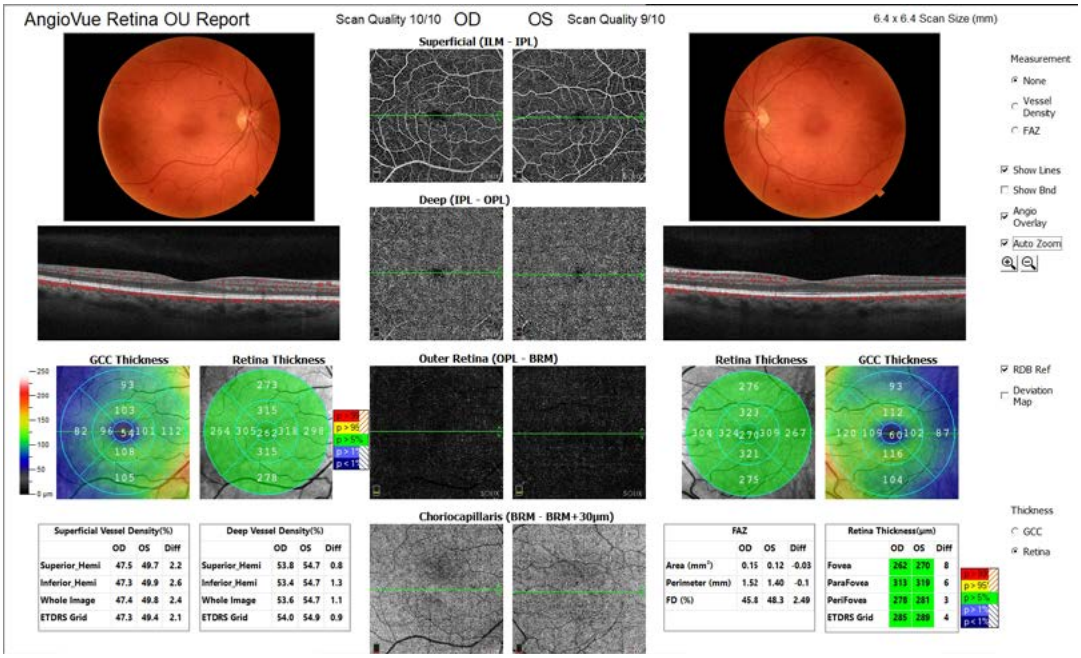


FullRange retina

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

RETINA

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

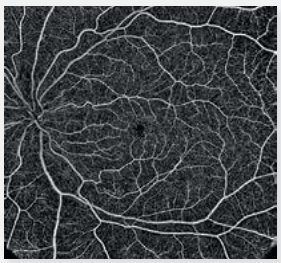


ANGIOVUE OCTA

DualTrac™ Motion Correction Technology with enhanced visualization combines real-time tracking and patented post processing to enable true 3D motion correction.

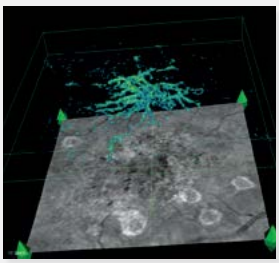
QuadMontage

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

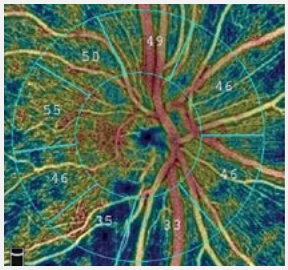


3D OCTA

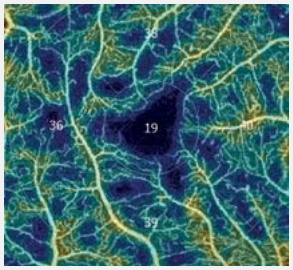
Optovue's exclusive AngioVue 3D OCTA rendering enables visualization quantification of retinal vasculature



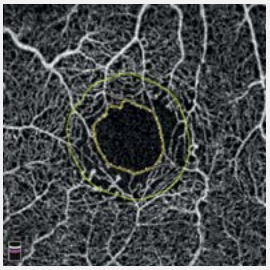
AngioAnalytics™ OCTA Metrics



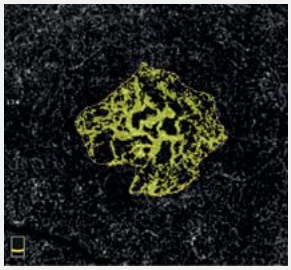
RPC Density



Superficial Density

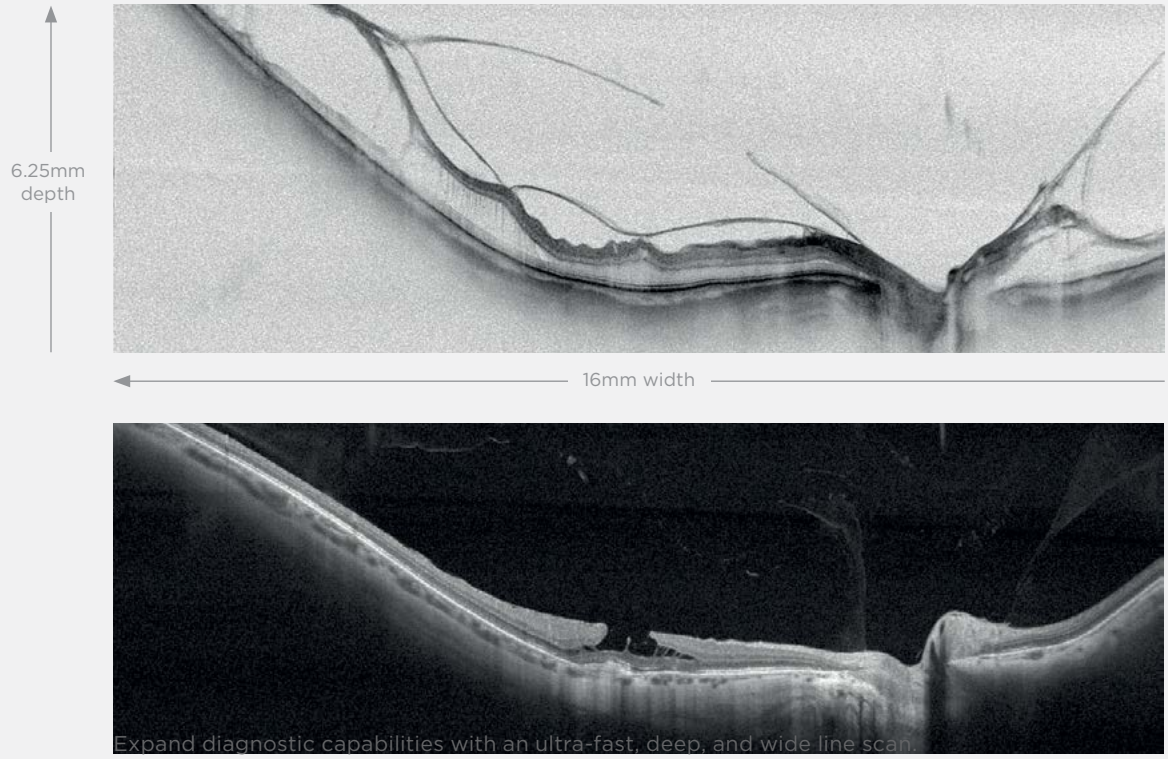


FAZ



Flow Area

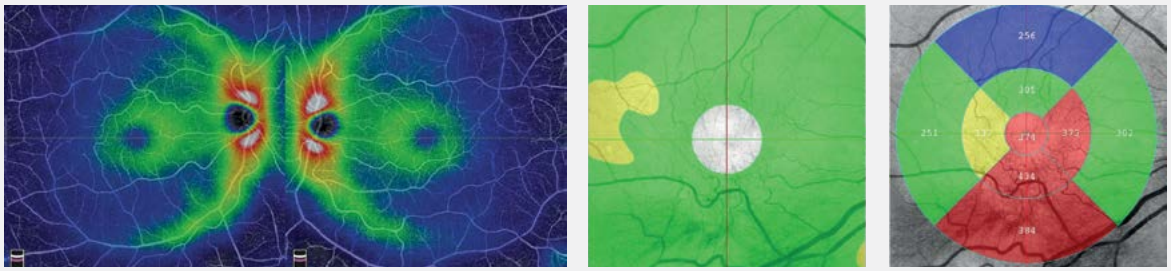
FULLRANGE RETINA 16 X 6.25 MM



Expand diagnostic capabilities with an ultra-fast, deep, and wide line scan.

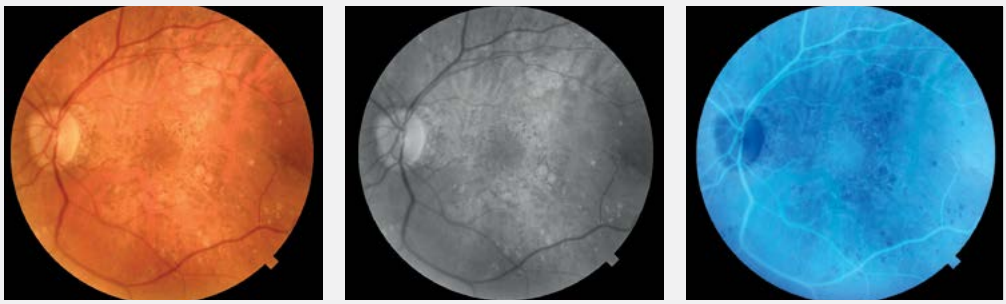
THICKNESS MAPS

Measure retinal thickness and GCC thickness maps and compare to a reference database.



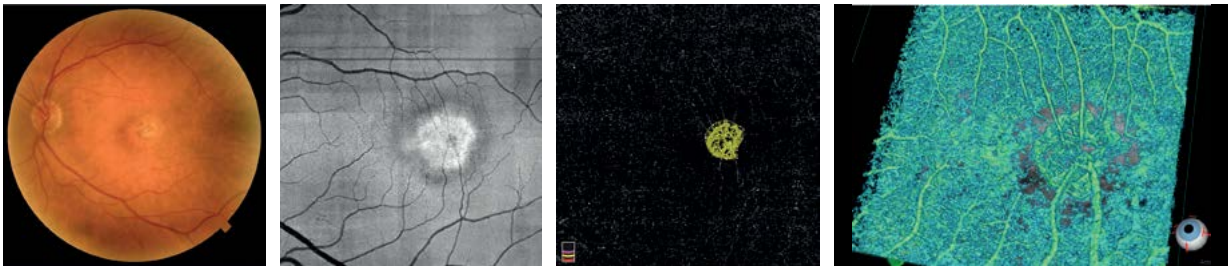
FUNDUS PHOTOGRAPHY

View retinal photos in color, grayscale and inverse modes.



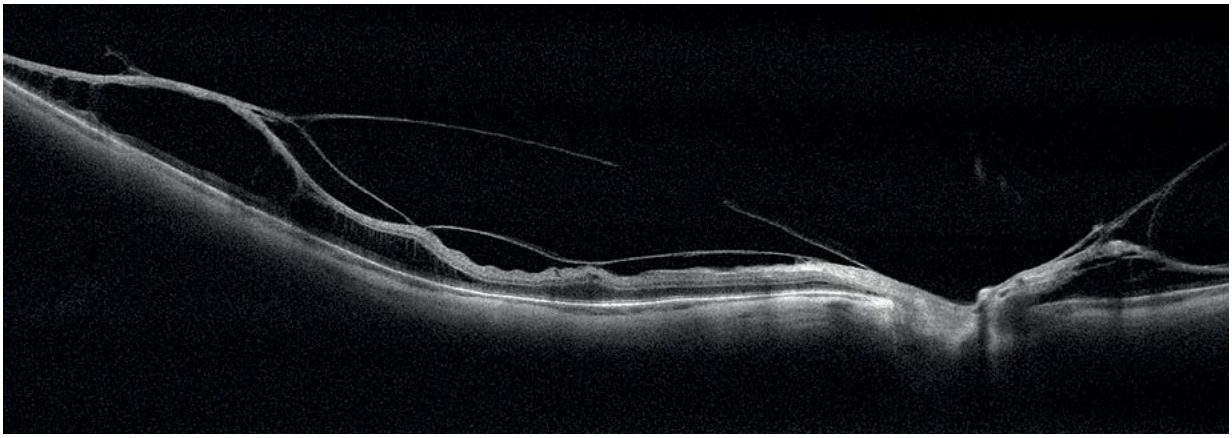
MACULAR TELANGIECTASIA WITH TYPE 3 NEOVASCULARIZATION

- Fundus Photo
- En Face OCT of the Outer Retina 6.4x6.4mm
- AngioVue OCTA of the Outer Retina with Flow Area Measurements
- AngioVue 3D OCTA



POSTERIOR VITREOUS DETACHMENT WITH EPIRETINAL MEMBRANE

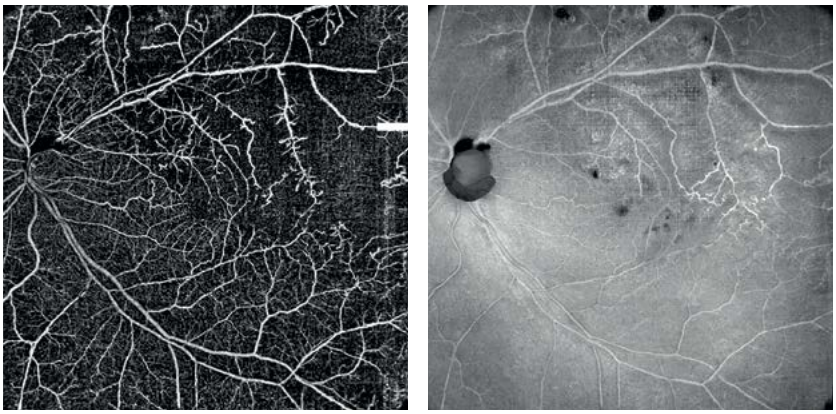
- FullRange Retina Scan



Images courtesy of Explore Vision Clinic, Paris, France

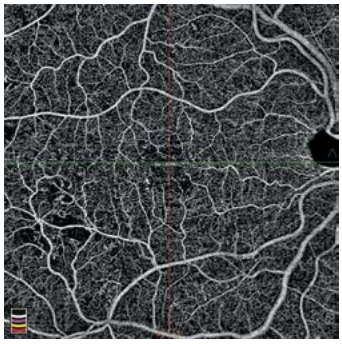
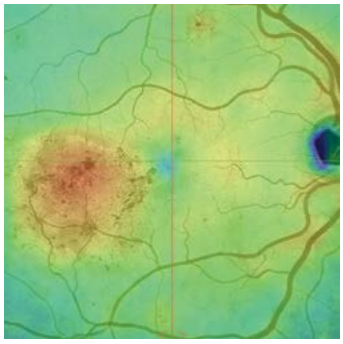
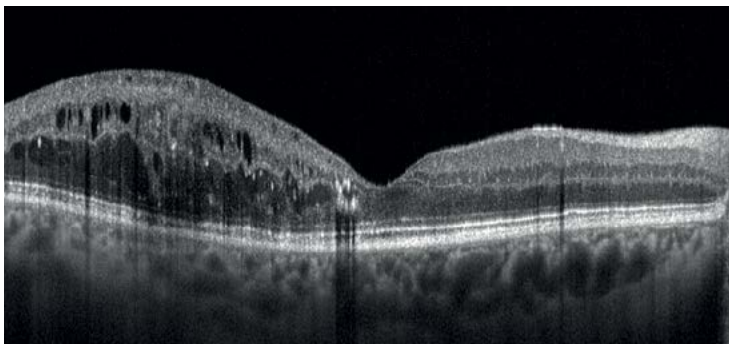
VEIN OCCLUSION

- AngioVue OCTA of the Superficial Retina 12x12mm
- En Face OCT of the Superficial Retina 12x12mm



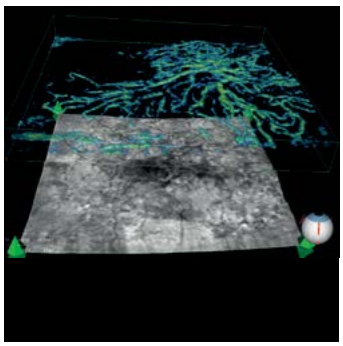
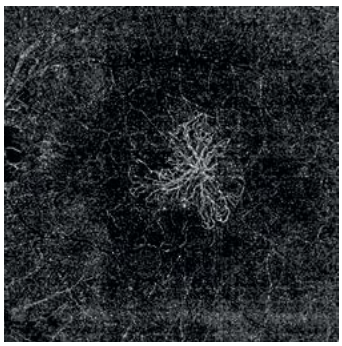
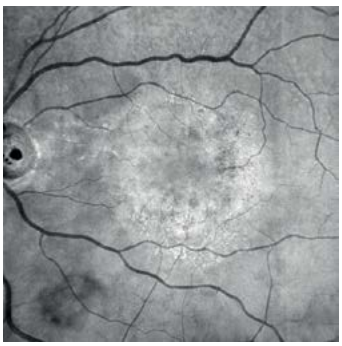
DIABETIC RETINOPATHY

- AngioVue OCTA of the Superficial Retina 9x9mm
- Retinal Thickness Map 9x9mm
- Raster Scan

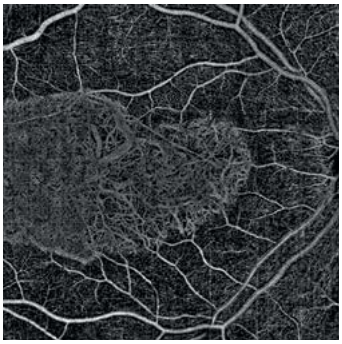
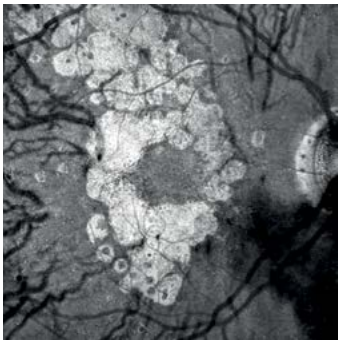
TYPE 1 CHOROIDAL NEOVASCULARIZATION

- AngioVue 3D OCTA
- AngioVue OCTA of the Outer Retina 9x9mm
- En Face OCT of the Outer Retina 9x9mm

GEOGRAPHIC ATROPHY

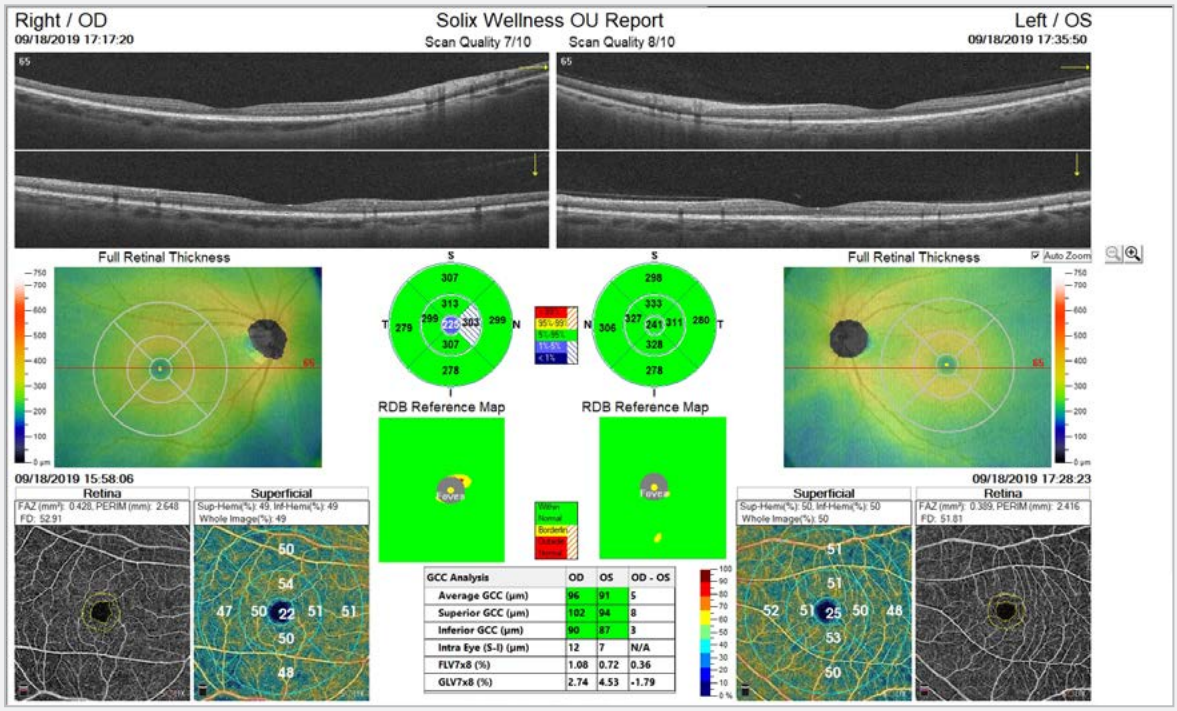
- AngioVue OCTA of the
- Superficial Retina 9x9mm
- En Face OCT of the Superficial Retina 9x9mm
- Fundus Photo


Wellness protocol

The iWellness and AngioWellness protocols can reveal the need for more extensive imaging, as well as streamline the exam process, 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

OPTOVUE SOLIX TECHNICAL SPECIFICATIONS

OCT Imaging | Retina	
Scan Speed	120,000
Axial Resolution	5µm (in tissue)
Lateral Resolution	15µm (in tissue)
Transverse Resolution	15µm (in tissue)
Scan Depth	Up to 3 mm (regular mode)
Scan Width	Up to 6.25mm (FullRange mode) 3mm – 16mm
Dioptric 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
OCT Imaging | Anterior Segment	
Lateral Resolution	18µm (Regular CAM) (in tissue) 36µm (FullRange CAM) (in tissue)
Scan Depth	Up to 3 mm (regular lens) Up to 6.25mm (FullRange lens)
Scan Length	2mm - 18mm
Fundus Photography	
Resolution	5MP
Scan Mode	Color, red-free*
Field of View	45° and 35° (small pupil mode)
Dioptric Range	-35D to +30D
Pupil Size	≥ 4.0 mm; ≥ 3.3 mm (small pupil mode)
External Photography	
External Photograph	Color (white light flash)
External Infra-Red (IR) Image	IR (940nm illumination)
Electrical and Physical Specifications	
Weight	95 kg (210 lbs)
Instrument Dimensions	1072mm X 600mm x 610mm (W 39.4 x D 31.5 x H 59 inches)
Table Dimensions	952mm x 600mm x 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

*Color image is processed and then displayed as a pseudo red-free image.

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