Humphrey Field Analyzer 3 from ZEISS

Advancing clinical efficiency for glaucoma

ZEISS

Seeing beyond

Reduce testing time and increase insight into glaucoma.

ZEISS Humphrey Field Analyzer 3

// INNOVATION
MADE BY ZEISS

The ZEISS HFA3 featuring SITA Faster Testing

The Humphrey® Field Analyzer 3 (HFA3) combines everything you value in a Humphrey with expanded testing options and reduced patient test times.

Optimize results for you and your patient.

Expand testing options. Optimize your patient management with new SITA™ Faster 24-2 and 24-2C tests.

Identify progression. Guided Progression Analysis™ (GPA™) helps determine if visual field loss is progressing (where and how fast) to help augment treatment.

Streamline workflow. Reduce set-up time and provide best test results with the Liquid Trial Lens™ and automated eye alignment.

Interact with results. Access HFA3 results and the entire patient test history as well as change baselines on the fly.

Synchronize data for complete patient history. Test patients at any HFA3 or HFAII-i, and generate reports with complete test history.

See the whole picture. HFA is the cornerstone of the Integrated Diagnostic Imaging platform for glaucoma that provides a new level of information for optimal patient management based on visual field function and corresponding OCT structure data.

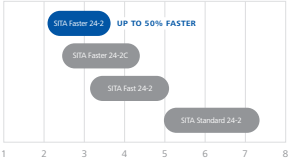
Everything you depend on, only from a Humphrey

The innovations in HFA3 add to the reliable standard that thousands of practices already depend on for essential diagnoses.

SITA "adapts" to patient responses

HFA SITA™ Strategies are the standard of care in visual field testing. SITA makes optimal use of the information contained in the patient's responses, looks at the complete pattern of patient responses while thresholding, and continuously refines the measurements.

Threshold testing is faster than ever with SITA Faster 24-2



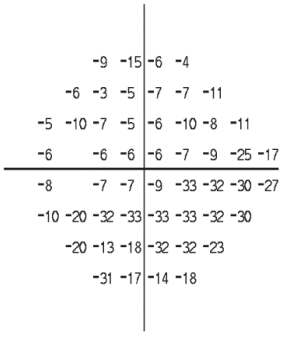
Typical test time ranges in minutes (mean +/- std. dev.)[1]

SITA Faster 24-2 improves clinical workflow and patient satisfaction with the fastest test time in HFA threshold testing. Approximately 50% faster than SITA Standard, SITA Faster 24-2 is also about 30% quicker than SITA Fast, yet offers the same reproducibility.

Obtain more information in central visual field

The new **SITA Faster 24-2C** test adds 10 test points to the 24-2 pattern. They were selected to examine areas along physiologically relevant nerve fiber bundles known to be susceptible to glaucomatous defects.[1-6]

Expert analysis of visual field test results



STATPAC™ statistical software compares results to proprietary age normative and glaucoma databases for analyzing changes in the patient's visual field over time.

1 Heijl A[1], Patella VM[2], Chong LX[3], Iwase A[4], Leung CK[5], Tuulonen A[6], Lee GC[2], Callan T[2], Bengtsson B[7]. A new SITA perimetric threshold testing algorithm; construction and a multi-center clinical study. *Am J Ophthalmol.* 2018 Oct 15. pii: S0002-9394(18)30592-0. doi: 10.1016/j.ajo.2018.10.010. [Epub ahead of print]

2 Donald C. Hood,[a,b,*,1] Ali S. Raza,[a,c,1] Carlos Gustavo V. de Moraes,[d,e,1] Jeffrey M. Liebmann,[d,e,1] and Robert Ritch[d,f,1]. Glaucomatous damage of the macula. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529818/

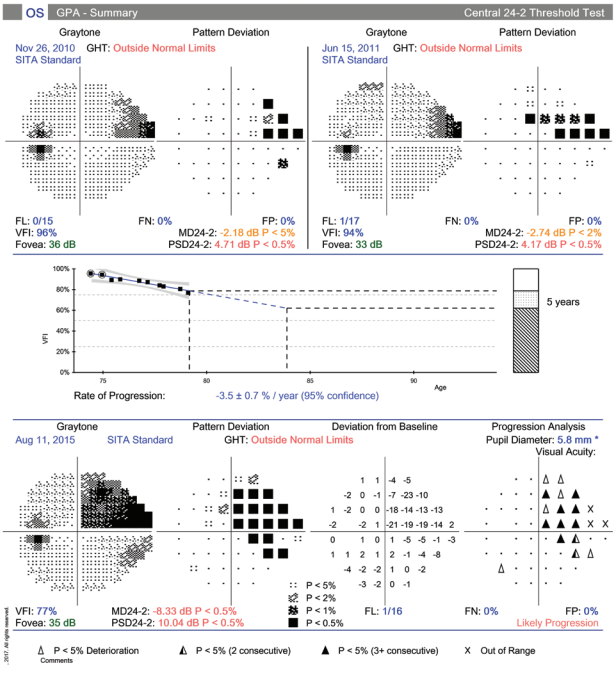
3 Ilana Traynis, B.S.,[1,2] Carlos G. De Moraes, M.D.,[4,5] Ali S. Raza, B.A.,[1] Jeffrey M. Liebmann, M.D.,[4,5] Robert Ritch, M.D.,[4,6] and Donald C. Hood, Ph.D.[1,3]. The Prevalence and Nature of Early Glaucomatous Defects in the Central 10° of the Visual Field. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4204644/

4 De Moraes CG[1], Hood DC[2], Thenappan A[3], Girkin CA[4], Medeiros FA[5], Weinreb RN[5], Zangwill LM[5], Liebmann JM[6]. Visual Fields Miss Central Defects Shown on 10-2 Tests in Glaucoma Suspects, Ocular Hypertensives, and Early Glaucoma. *Ophthalmology.* 2017 Oct;12 4(10):1449-1456. doi: 10.1016/j.ophtha.2017.04.021. Epub 2017 May 24. 24-2. https://www.ncbi.nlm.nih.gov/pubmed/28551166 *Invest Ophthalmol Vis Sci.* 2014 Feb 3;55(2):632-49. doi: 10.1167/iovs.13-13130.

5 Hood DC[1], Slobodnick A, Raza AS, de Moraes CG, Teng CC, Ritch R. Early glaucoma involves both deep local, and shallow widespread, retinal nerve fiber damage of the macular region. https://www.ncbi.nlm.nih.gov/pubmed/24370831

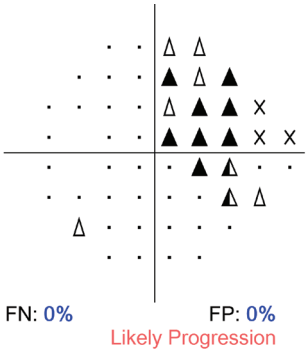
6 Donald C. Hood,[1,2] Matthew Nguyen,[1] Alyssa C. Ehrlich,[1] Ali S. Raza,[1,3] Ieva Sliesoraityte,[4,5] Carlos G. De Moraes,[2] Robert Ritch,[6,7] andUlrich Schiefer[4,8]. A Test of a Model of Glaucomatous Damage of the Macula With High-Density Perimetry: Implications for the Locations of Visual Field Test Points. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064621/

Inform your decision-making with GPA



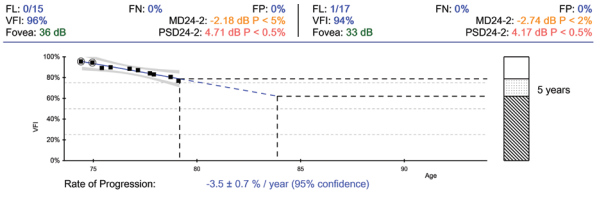
GPA™ (Guided Progression Analysis) is designed to help you identify where, and how fast, defects are progressing. GPA allows transition to new SITA tests while maintaining analysis of the complete patient history.

Identify consecutive change at each test point



Progression Analysis Probability Plot is designed to identify statistically significant progression events in consecutive visits at individual test points. GPA Alert displays a plain language message about the likelihood of disease progression.

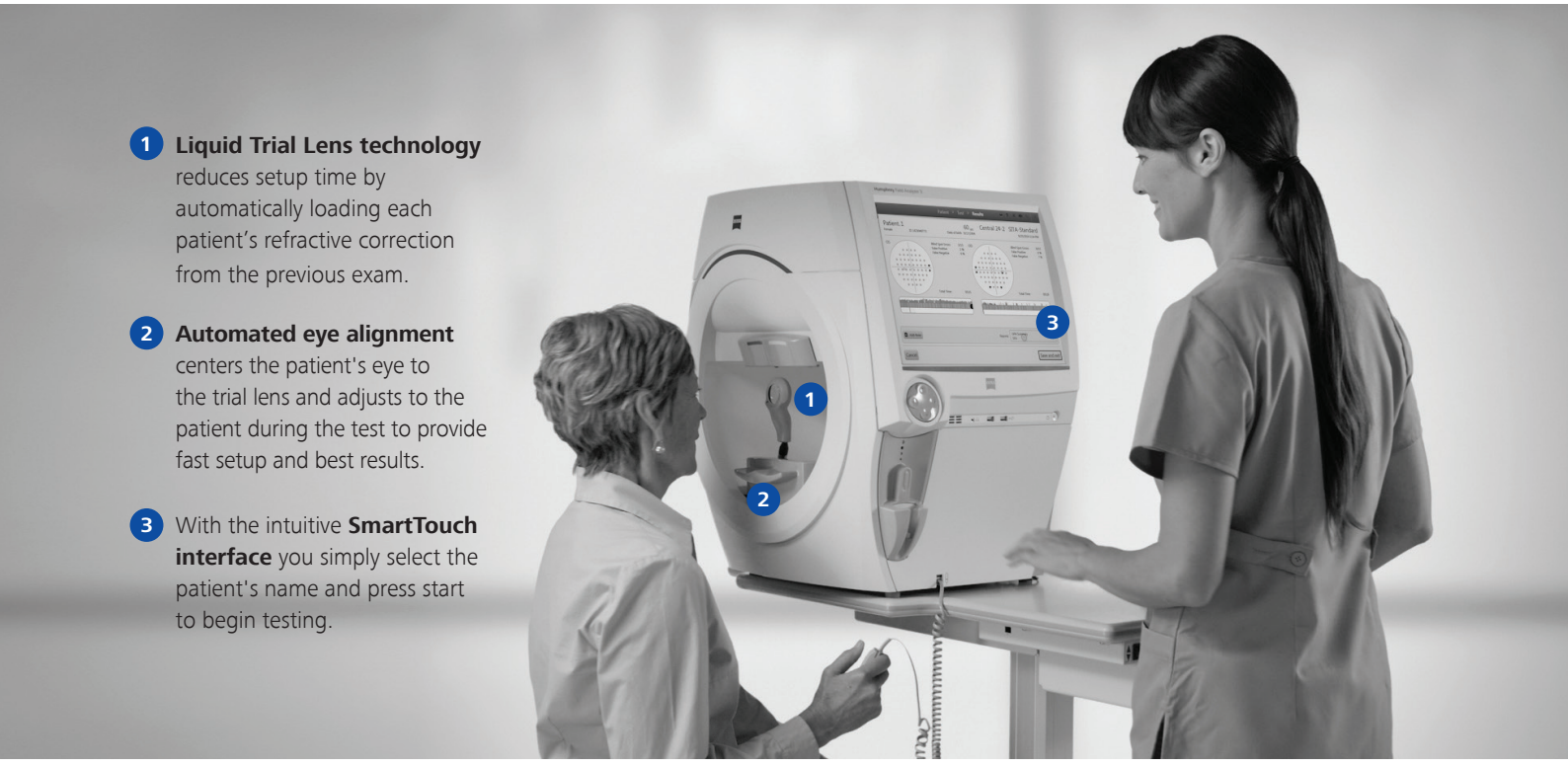
Visualize rate of progression



Visual Field Index™ (VFI) is a measure of the patient's overall visual function as compared to an age-adjusted normal population. VFI trend analysis helps differentiate rapid versus slow progressing visual field loss.

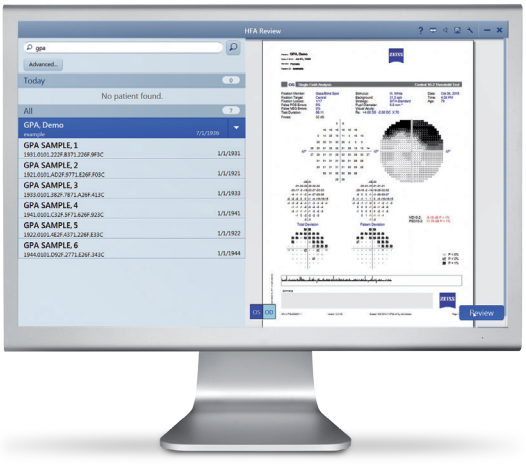
HFA3 makes visual field testing faster and easier than ever

Simple to operate



1. **Liquid Trial Lens technology** reduces setup time by automatically loading each patient's refractive correction from the previous exam.
2. **Automated eye alignment** centers the patient's eye to the trial lens and adjusts to the patient during the test to provide fast setup and best results.
3. With the intuitive **SmartTouch interface** you simply select the patient's name and press start to begin testing.

Enhancing workflow from patient testing to report review



New Review Software delivers comprehensive analysis and improves digital workflow.

- **Quickly access** HFA reports in every exam lane.
- **Modify reports on-the-fly** to include and exclude tests, reset baselines and follow up on tests.
- **Simple visual reports** foster clear patient communication, which may help improve compliance.

Data Synchronization automatically updates and integrates patient tests from any connected HFA3. HFA-IIi contributes tests to HFA3, enabling you to use existing HFA-IIi devices to supplement testing capacity.

Technical data Specifications

Choose the HFA3 that's right for you

Test specifications						
Maximum temporal range (degrees)	90				30	30
Stimulus duration	200 ms				300 ms	200-400 ms
Visual field testing distance	30 cm				Infinity	Infinity
Background illumination	31.5 ASB				100 cd/m^2	100 cd/m^2
Threshold test library						
N-30					•	•
C-20						•
24-2, 30-2, 10-2, Macula	•	•	•	•	•	
60-4, Nasal step	•	•	•	•		
Threshold test strategies						
SITA Standard, SITA Fast, SITA Faster, Full Threshold, FastPac	•	•	•	•		
SITA-SWAP			•	•		
MOBS					•	•
ZEST					•	
Suprathreshold test library						
C40, C76, C80	•	•	•	•		
C64, C-Armaly	•	•	•	•		
C-20						•
N-30					•	•
24-2					•	
Peripheral test patterns	•	•	•	•		
Suprathreshold test modes						
Age corrected	•	•	•	•	•	•
Threshold related, Single intensity	•	•	•	•		
Specialty test library						
Social Security Disability, monocular, binocular	•	•	•	•		
Esterman monocular, binocular, superior 36, 64	•	•	•	•		
Kinetic testing		•	•	•		
Custom Kinetic testing		•	•	•		
Custom Static testing	•	•	•	•		

Fixation control						
Heijl-Krakau blind spot monitor	●	●	●	●	●	●
Video eye monitor	●	●	●	●		●
Gaze tracking		●	●	●		
Head tracking		●	●	●		
Vertex monitoring			●	●		
Operator interface						
Display	Touchscreen LCD				LCD	LCD
Keyboard	●	●	●	●		●
Stimulus						
Frequency doubling					●	●
White-on-white	●	●	●	●		
Red- or blue-on-white		●	●	●		
Blue-on-yellow (SWAP)			●	●		
General testing features						
Stimulus sizes	Goldmann I-V				10°	2°, 5°, 10°
Foveal threshold testing		●	●	●		
Automatic pupil measurement		●	●	●		
Liquid Trial Lens (AutoTLC)				●		
RelEYE eye review			●	●		
Test storage						
User-defined	●	●	●	●		●
Software features						
Single Field Analysis (SFA)	●	●	●	●		
Glaucoma Hemifield Test (GHT)	●	●	●	●		●
Visual Field Index (VFI)	●	●	●	●		
Guided Progression Analysis (GPA)	●	●	●	●		
Mixed GPA	●	●	●	●		
Serial field overview	●	●	●	●		●
Networking	●	●	●	●		●
FORUM Connectivity	●	●	●	●		●
DICOM Connectivity	●	●	●	●		●
Printer						
Thermal printer					●	
Native generic PCL 3, PCL 5 and postscript printer support for local, shared and networked printers						●
Native postscript printer support for network capable printers	Optional					
Data storage, retrieval and analysis						
Hard drive	500 GB					250 GB
USB	●	●	●	●		●
CD-R/W drive						●
Dimensions						
Height	23" (58 cm)				17" (43 cm)	17" (43 cm)
Width	20" (51 cm)				10" (25 cm)	12.2" (31 cm)
Depth	18" (46 cm)				19" (48 cm)	33.5" (85 cm)
Weight	63 lbs (28.7 kg)				19 lbs (8.6 kg)	37.5 lbs (17.4 kg)
Electrical requirements						
	100-120V~, 50/60Hz, 4.0A 230V~, 50/60Hz, 1.8A				100-120V, 50/60Hz 230V, 50/60Hz	100-240V~, 50/60Hz, 200VA max
Standards						
Meets UL, CSA and CE standards	●	●	●	●	●	●

See the whole picture

Integrated Diagnostics Imaging platform for Glaucoma

Glaucoma management is evolving to require a new diagnostic environment to support your clinical assessment when and where you need it.

The Integrated Diagnostics Imaging platform delivers information critical to understanding and managing your patients by offering connection to multi-modality data sets. The combined analysis of HFA3 and CIRRUS™ HD-OCT lets you observe, identify and evaluate structural and functional changes earlier, for better glaucoma management.

ZEISS Integrated Diagnostic Imaging - Glaucoma

CE 0297

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