peri vision

Visionary Eye Testing

SWISS MADE

VisionOne™

The VR eye testing platform setting a new standard for visual fields

Download our product prochure

SORS: A NEW STANDARD IN VFT

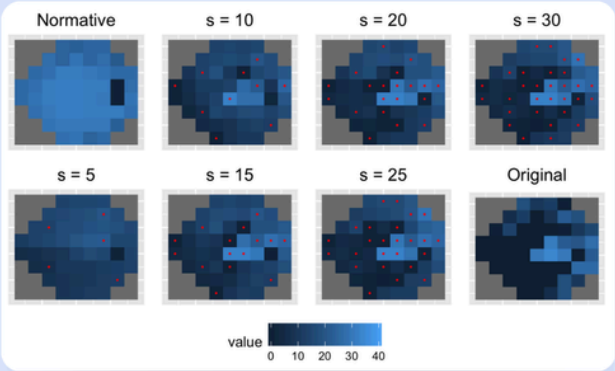


***Figure**: Top left shows the starting visual field with age-normalized values. Bottom right shows the true visual field to be estimated. In between, the sequentially estimated visual fields using S 2 {5, 10, 15, 20, 25, 30} location measurements. Red points show the corresponding S tested locations.*
***Source**: Kucur ŞS, Sznitman R (2017) Sequentially optimized reconstruction strategy: A meta-strategy for perimetry testing. PLoS ONE 12 (10): e0185049. https://doi.org/10.1371/journal. pone.0185049*

- **Patented AI**: PeriVision's proprietary AI strategy for optimized visual field testing.
- **Optimal test path**: dynamically identifies the most efficient testing route to reduce chair time.
- **Smart sampling**: tests a strategic subset of most information-rich locations (e.g., 20–36 points) rather than the full grid.
- **AI reconstruction**: accurately predicts untested areas via linear approximation with machine learning algorithms trained on thousands of visual fields.

REDUCING TEST TIME AND DATA VARIABILITY

- **Faster testing**: up to 70% faster than the traditional SITA Standard strategy testing for ~2 min. per eye.
- **Higher reliability**: 26-39% less test-retest variability vs gold standard strategy (Dynamic Strategy) and tighter limits of agreement
- **High correlation**: high correlation with gold standard of R = 0.91 for mean deviation (MD)

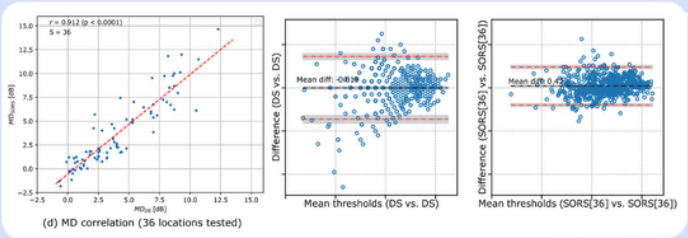


***Figure:** MD correlation and test re-test variability of SORS vs. Dynamic Strategy*
***Source**: Kucur SS, Häckel S, Stapelfeldt J, Odermatt J, Iliev ME, AbeggM,SznitmanR,HöhnR. Comparative study between the SORSanddynamicstrategy visual f ield testing methods on glaucomatous and healthy subjects. Trans Vis Sci Tech. 2020;9(13):3, https://doi.org/10.1167/tvst.9.13.3*

GOLD STANDARD DYNAMIC RANGE AND BOWL PERIMETRY

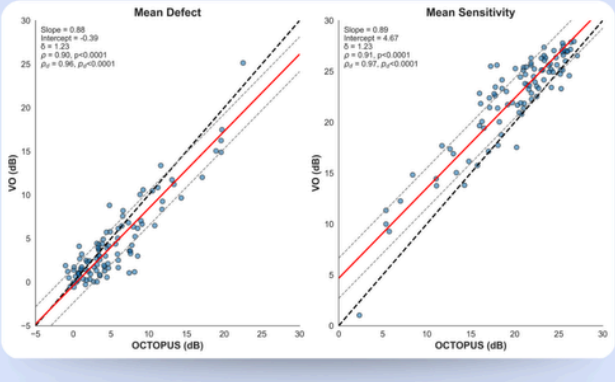
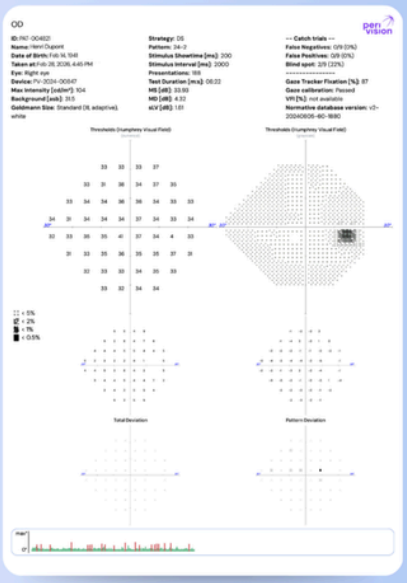
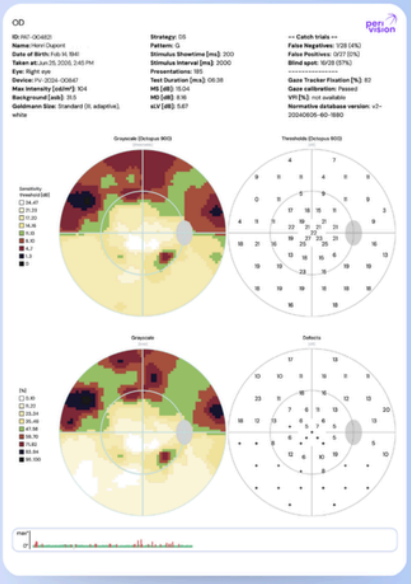


***Figure**: Comparison of visual field global indices between the VisionOne™ (VO) and Octopus 900. Each point represents one eye (N = 100). Solid red lines indicate the Deming regression fit. Pearson correlation coefficients demonstrate strong linear associations between devices for mean sensitivity (MS: ρ = 0.91, p < 0.0001) and mean defect (MD: ρ = 0.90, p < 0.0001). Corresponding Deming regression coefficients were pd = 0.97 for MS and pd = 0.96 for MD.*
***Source**: Forthcoming publication*

- **Adaptive stimulus algorithm**: novel method for dynamic scaling of stimulus size to match luminance range of traditional perimeters on VR
- **Full disease spectrum**: algorithm confidently tests moderate and advanced patients
- **Bowl perimetry**: stimuli rendered on spherical surface (except binocular Esterman), aligning more closely with standard perimetry
- **Validated performance**: we demonstrated exceptional correlation to gold standard (R = 0.96) in large clinical study (N=100)

Download our research





VisionOne™ benefits

- ✔ Free up staff with virtual assistant in multiple languages
- ✔ Free up space, test anywhere - even out of your clinic
- ✔ Offer a comfortable, ergonomic patient-experience
- ✔ Test multiple patients at the same time
- ✔ Work with standard outputs for EMR
- ✔ Up to 70% faster VFT with SORS
- ✔ Test without an eye patch

+21-30%

Average additional patient volume with PeriVision estimated by eye doctors in market survey [1]

-65%

Technician time for visual field with AI & automation [2]

~95%

Patients perceiving system as easy to use [3]

★★★★★

1) PeriVision online survey with 30-40 US ophthalmologists and optometrists.
2) Data obtained in PeriVision's clinical study in collaboration with Glasgow Caledonian School of Optometry.
3) Patient survey as part of clinical study described in Comparative Study Between the SORS and Dynamic Strategy Visual Field Testing Methods on Glaucomatous and Healthy Subjects by Kucuer et al. (2020)

Diagnostics

VFT strategies : SORS, SORS screening, Normal Strategy, Dynamic Strategy, Supra-threshold

VFT patterns: 10-2, 24-2, 30-2, G, Esterman (120 degree), Screening 28, C-40

VFT standard progression analysis: MD change / year, Visual Field Index

VFT reliability indices: Heijl-Krakau, active eye tracking

Workflow support

Virtual assistant in 10 languages

Patient-specific stimuli update time

Virtual bowl perimetry

PDF outputs

Custom lens holders (sizes S, M, L depending on IPD)

2 headset controllers

Protective case incl. charger

Specs

Dynamic range: equivalent to 0-47dB (Octopus 900 range) or 0-50 dB (HFA range) with stimulus modulation

FoV: 98 degrees

Screen: LCD

Weight: 395g

Bluetooth: 5.1

Wi-Fi: 6

Position and Gesture **Cameras**

PPI: 773

Refresh Rate: 90Hz

Coming soon

- AI-guided progression analysis
- Fixation-independent perimetry for retina diseases
- Visual acuity
- Contrast sensitivity
- Color vision
- Amsler Grid

About PeriVision

PeriVision was born out of the eye clinic of the University Hospital Bern in Switzerland to address the unmet clinical need for efficient and reliable visual field testing. At the core of our product are AI algorithms which optimize eye tests, automate assistance, control quality and provide deep insights for clinical decisions.

We develop our solutions with leading clinics and in collaboration with eye doctors, technicians and patients. Our technology has been validated in clinical studies and we publish our research in peer-reviewed publications.

GET IN TOUCH

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