EyeSwift®PRO

EYE TRACKING BASED VISION ASSESSMENT

NovaSight

A Clear Future Ahead

1 Hayarden St., P.O.B. 1067 Airport City 7019801, Israel

+972 3 6422868 | info@nova-sight.com | www.nova-sight.com

ABOUT EyeSwift®PRO

Accurate vision assessment at the earliest age is imperative for proper eyesight development

- The EyeSwift®Pro is a quick, accurate, and affordable visual assessment system based on advanced eye-tracking technology, to be used by any trained individual.
- The system incorporates test glasses - active and passive - in order to automatically control the content seen by each eye, and to allow for automatic occlusion.
- Designed both for pediatric and adult patients, the EyeSwift®Pro requires minimal patient cooperation – patients simply watch fun short, animated videos.
- No language or verbal skills are required for most of the tests, so even very young children can be tested.
- The EyeSwift®Pro delivers quantitative assessment of multiple vision deficits.

Accurate

Objective

Easy to use

Dynamic

Children friendly

Fast

EyeSwift®PRO

AN EYE TRACKING BASED VISION ASSESSMENT

- The EyeSwift®PRO tests are grouped into automated 'protocols' by category (such as amblyopia monitoring, binocular vision, digital strain, reading, etc).
- Each protocol performs the relevant tests, and outputs a clear report which can be easily understood by the operator, as well as by the patient or parent.

COMPREHENSIVE VISION TESTS

Automated contrast sensitivity
Stereoacuity
Fixation stability
Nystagmus
Suppression (W4D)
Color test
Reading analysis
Ocular motility
Manual visual acuity
Simulated visual acuity
Manifest deviation (tropia)
Latent deviation (phoria)
Fusional vergence

EyeSwift®PRO

EyeSwift®PRO PROTOCOL OUTPUT

AMBLYOPIA MONITORING

- Comprehensive amblyopia monitoring
- Synergetic to CureSight™
- Amblyopia risk factors
- Eye deviation (tropia and phoria)
- Automated visual acuity with distance simulation
- Fixation stability
- Stereoacuity
- Suppression (W4D)

MYOPIA MONITORING

- Automated visual acuity with distance simulation
- Eye deviation (tropia and phoria)
- Recommendation for myopia control

BINOCULAR VISION

- Eye deviation (tropia and phoria)
- Ocular motility
- Fixation stability
- Treatment & lenses recommendation
- Monitoring over time

DIGITAL STRAIN

- Deficient vision at screen distance
- Latent deviation (phoria)
- Blinking rate and duration as indicators for dry eye
- Lenses recommendation

PEDIATRIC OPHTHALMOLOGY

- Nystagmus
- Eye deviation (tropia and phoria)
- Automated visual acuity and contrast sensitivity
- Presentation of results acc. to age norms
- Recommendations for further investigation

VISUAL HEALTH

- Contrast sensitivity
- Automated fixation stability
- Ocular motility

READING ANALYSIS

- Presentation of results acc. to language and age-related norms
- Reading ability progression over time
- Differentiation between ocular and non-ocular causes for deficient reading
- Recommendations for further investigation

CE 2797 EyeSwift®PRO device is CE marked in accordance with EU Medical Device Regulation 2017/745
Caution: The EyeSwift®PRO system is an Investigational Device, Limited By Federal (Or United States) Law To Investigational Use.
NS-00886-R01. Errors and omissions excepted - Final specifications may differ.

EyeSwift®PRO

Patient's Information

Name | ID Number | Birth Date **11/01/1988**

Last refraction	SPH	CYL	Axis	ADD
OD				
OS				

Amblyopia Monitoring

EyeSwift®Pro Amblyopia Score

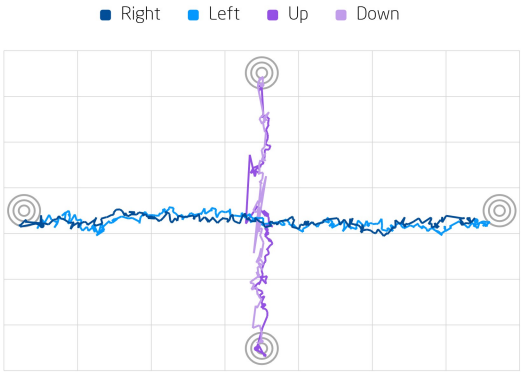
0 — 100

Right Eye

Left Eye

Extraocular Motility (Pursuit)

Dist. (m) **0.64**



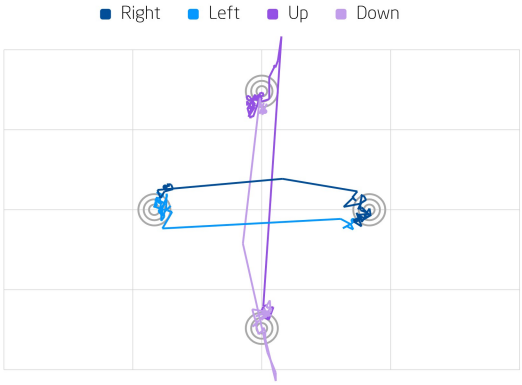
→	←	↑	↓
Smooth	Smooth	Smooth	Smooth

→	←	↑	↓
Smooth	Smooth	Smooth	Smooth

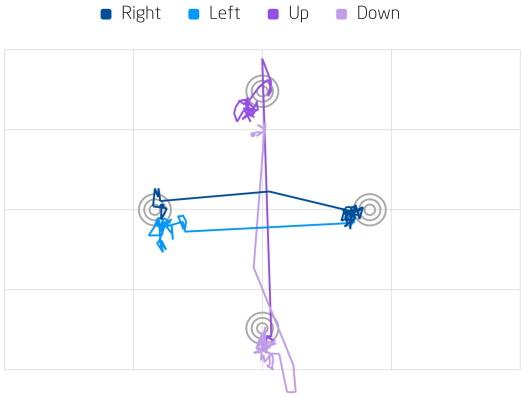
Extraocular Motility (Pursuit) : Checks the ability to properly track a moving target

Extraocular Motility (Saccades)

Dist. (m) **0.64**



	→	←	↑	↓
Latency [sec]	0.25	0.30	0.30	0.29
Speed [Δ/sec]	28.43	10.99	17.11	41.45



	→	←	↑	↓
Latency [sec]	0.25	0.30	0.30	0.29
Speed [Δ/sec]	33.44	12.41	16.95	32.94

→	←	↑	↓
Good Coordination	**Good Coordination**	**Good Coordination**	

Extraocular Motility (Saccades) : Checks the reaction, speed and accuracy of the response towards objects appearing at different points.

DISCLAIMER: The EyeSwift® Pro System is designed to provide information based on involuntary eye movements for general health and wellness. The EyeSwift® Pro System cannot replace your evaluation. Nor can the EyeSwift® Pro be used to provide an uninterpreted diagnosis or direct treatment recommendations.

Right Eye	Binocular	Left Eye

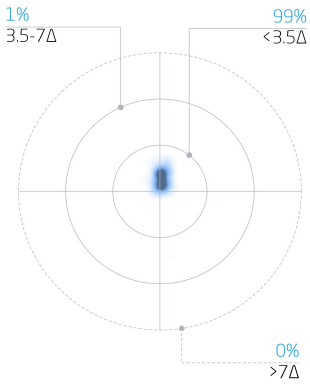
DRA (sim. VA)*
Dist. (m) **0.65**

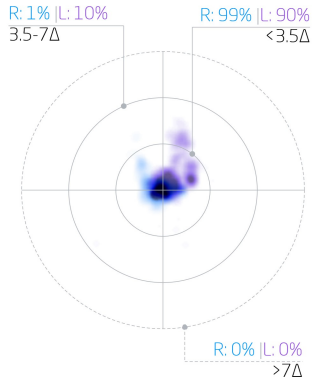
Right Eye	Binocular	Left Eye
>14.20 CPD (<6/5.9)		**13.75 CPD** (6/6.4)

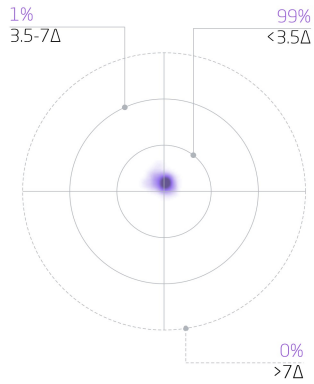
DRA : Provides information regarding the smallest aspect/ detail of an object which can be resolved by checking the ability to track targets with increasingly higher resolution

Fixation Stability
Dist. (m) **0.66**

Right Eye	Binocular	Left Eye
Final Results : **Normal**	**Density →** Right / Left	Final Results : **Normal**
1% 3.5-7Δ; 99% <3.5Δ; 0% >7Δ	R: 1% |L: 10% 3.5-7Δ; R: 99% |L: 90% <3.5Δ; R: 0% |L: 0% >7Δ	1% 3.5-7Δ; 99% <3.5Δ; 0% >7Δ
Saccades / sec **0.25**	Saccades / sec Left **0.25** / Saccades / sec Right **0.30**	Saccades / sec **0.45**







Fixation Stability : Measures the precision of eye fixation and the movements within fixations, while observing a small target

Cover Test
Dist. (m) **0.65**

Horizontal [Δ]	Vertical [Δ]
Ortho	**Ortho**

Cover Test : Tests for manifest eye misalignment by covering and uncovering each eye

Alternating Cover Test
Dist. (m) **0.65**

Horizontal [Δ]	Vertical [Δ]
3.0 E	**0.0**
Phoria Break Time	Phoria Speed

No Horizontal Phoria

Horizontal [sec]	Horizontal [Δ/sec]

Alternating Cover Test : Tests for latent eye misalignment, and measures the maximal eye deviation by alternatingly covering the eyes

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Stereo Acuity

Dist. (m)
Test Method **Out**

No Stereo

800 — 60 [arcsec]

Stereo Acuity : Measures the smallest detectable depth difference that can be seen in binocular vision by decreasing the disparity between the images shown to each eye

Worth 4-dot

Dist. (m) **0.68**

Diplopia

Worth 4-dot : Checks fusion, suppression, and anomalous retinal correspondence

DRA - Dynamic Resolution Acuity | **sim. VA** - Simulated Visual Acuity

⚠ Warnings

Note

Approved By _____

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Nystagmus

Dist. (m) **0.46**

Eye

Right

Expression

Manifest

Amplitude (Diopters)

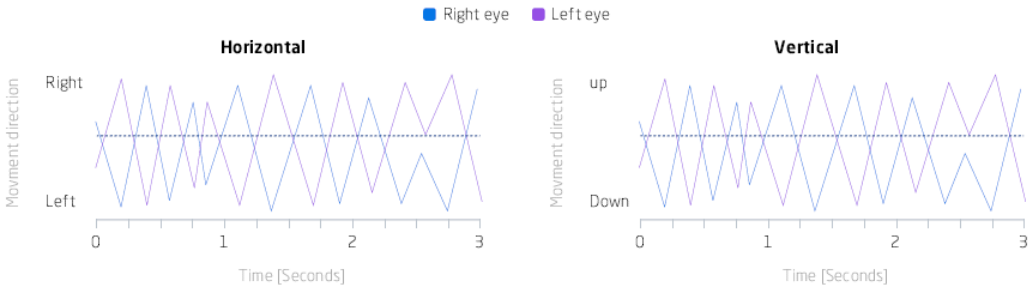
10 Δ

Frequency (Hz)

3 Hz

Direction

Torsional



*Graph vertical axis is normalized

Type

Pendular

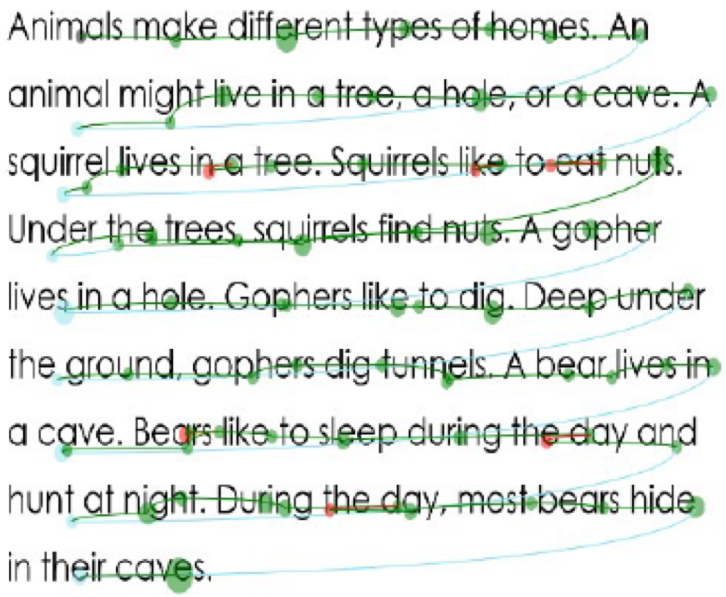
Convergence-retraction nystagmus refers to the irregular jerking of the eyes back into the orbit during upward gaze. It can indicate midbrain tegmental damage.

EyeSwift®PRO Reading Analysis

Age based reading test for assessing fixations, regressions and rate of reading in any language and age

CC
Fixations **83**
Regressions **6 (7 %)**
Fixation Duration **0.247 sec**
Reading rate(words/min) **180** ***(> 90th percentile)***
Reading Grade: **Text Level 2 0-8 years**

Normal



Reading
SC
Fixations **124**
Regressions **29 (23 %)**
Fixation Duration **0.352 sec**
Reading rate(words/min) **45** ***(> 10th percentile)***
Reading Grade: **Text Level 2 0-8 years**

Abnormal