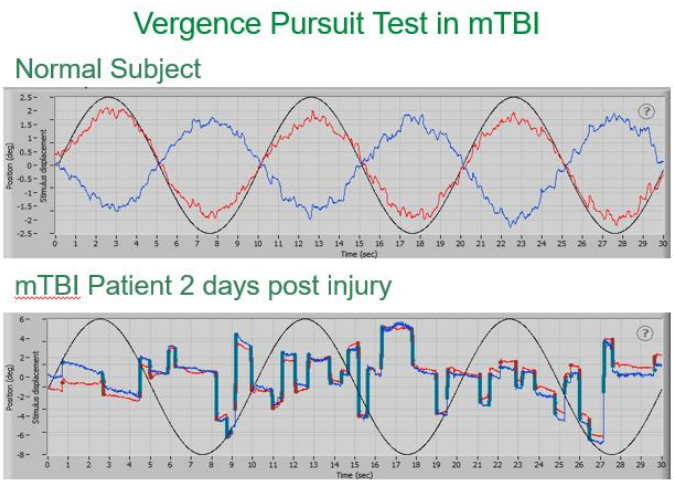
Neurolign USA, LLC (formerly Neuro Kinetics)
128 Gamma Dr, Pittsburgh PA 15238
800-895-7405
Info@Neurolign.com

Neurolign Dx 100



Dx 100 is a fully-capable VNG system with a virtual 3D display built into the goggle for the smallest, most portable package in the industry. In addition to all the standard tests in the VNG battery, the virtual 3D environment allows us to provide advanced tests useful in concussion, mTBI and neurologic populations. These ocular motor, vestibular and reaction time (OVRT) tests include vergence pursuit and vergence steps, anti-saccades, predicted saccades, subjective visual vertical and horizontal, auditory and visual reaction times, and a dual-task test that combines an eye movement task with a motor task. To speed and standardize data collection our VEST software includes automated voice instructions and the ability to group similar tests together so that they can be performed in a single block. VEST includes FDA-cleared and published normative ranges. Clinicians and researchers in sports medicine and concussion take advantage of the DX100's portability to perform preseason baseline assessments and post-concussion follow up.

Dx 100 goggle hardware specs

Records both eyes simultaneously	Yes
Goggle weight	595 grams (1.31 lbs)
Sampling rate	100 Hz
Resolution in pixels	348x248
Spatial resolution / Tracking accuracy	0.01° Horizontal and Vertical, 0.1° Torsional
Eye Tracking Range	±30° Horizontal and Vertical; ±10° Torsional
Pupillary Distance Fit	55 to 70 mm
Diopter Correction	±4 diopters per eye
USB level	USB 3.0
System latency	4 msec
Torsion recording	Yes
Pupil diameter recording	Yes
Pitch, yaw and roll sensors	Yes

See the reverse side for a complete list of tests available on Neurolign systems.

Neurolign USA Clinical Device Test Matrix

CATEGORY	TEST	DX-NOTC-C	DX100	DX-Falcon	Notes	# of user-controlled test parameters
Traditional Ocular Motor	Smooth Pursuit	√	√		Horizontal and Vertical	4
	Saccade	√	√		Horizontal and Vertical	4
	Optokinetic (OKN)	√ (Horizontal only)	√		Horizontal, Vertical and Rotational	8
Advanced Ocular Motor	Vergence Pursuit		√		Depth, Horizontal and Vertical	11
	Vergence Steps		√		Depth, Horizontal and Vertical	5
	Predictive Saccade	√	√		Horizontal and Vertical	5
	Antisaccade	√	√		Horizontal and Vertical	6
	Self-Paced Saccade		√		Horizontal	2
Reaction Time	Visual Reaction Time	√	√			2
	Auditory Reaction Time	√	√			2
Dual Task	Saccade and Reaction Time	√	√		Horizontal and Vertical	4
Static Vestibular	Spontaneous Nystagmus	√	√	√	Center fixation target	3
	Gaze Nystagmus	√	√		Eccentric horizontal and vertical targets	4
	Positional		√	√	Center fixation target	4
Dynamic Vestibular	Sinusoidal Harmonic Acceleration (SHA)	√			0.01 to 2.0 Hz	5
	SHA with Visual Enhancement	√			Earth-fixed optokinetic field	5
	SHA with Visual Suppression	√			Head-fixed fixation target	5
	Pulse-Step-Sine	√			Optional, at additional cost	10
	Positioning (Dix Hallpike etc.)		√	√	4 defined positions plus user-defined	3
	Caloric (Requires irrigator, sold separately)		√	√	Center fixation target	7
Impulse tests	Trapezoidal Rotation (Impulse Step Test)	√			Peak velocity up to 300 deg/sec	8
	vHIT (video Head Impulse Test)			√	Lateral, RALP, LARP	6
	crHIT (controlled rotation Head Impulse Test)	√			Optional, at additional cost	11
Otolith Function	Subjective Visual Vertical	√	√			3
	Subjective Visual Horizontal	√	√			3
	Dynamic Unilateral Centrifugation (incl. SVV)	√			Fixed centrifugation travel parameters	5
	Custom Unilateral Centrifugation	√			Optional, at additional cost. Customizable centrifugation travel parameters	6
Custom Test	Gives users the ability to design their own test. Established protocols include ocular counter roll, post-headshaking nystagmus and OKN after-nystagmus	√	√	√ (No OKN after-nystagmus)	Visual stimuli manually controlled by user during test.	2
Research-only Tests (requires IRB)	Dynamic Off Vertical Axis Rotation* (OVAR)	√				
	Memory Guided Sequence		√			
	Light Reflex		√			
	Visual Paired Comparison		√			
	Strabismus		√			