

# Visual Evoked Potential (VEP)

## DIOPSYS® NOVA-VEP OFFICE BASED VISUAL EVOKED POTENTIAL TESTING

VEP gives *objective, functional* data about the entire visual pathway from the retina to the visual cortex. VEP has been used to help doctors diagnose diseases such as Glaucoma, Optic Neuritis, TBI and Amblyopia.<sup>1-4</sup>



## Objective

- No verbal response or “button pushing” is required by the patient.
- Quantitative analysis of VEP data and color-coded reports minimize subjective clinician interpretation.
- Reports and documents the results of practitioner intervention and supports medical decision making.

## Functional

- Complements structural studies with an analysis of neural function that is affected by disease or trauma.
- Variable contrast levels and stimulus sizes to accommodate different pathologies.
- Improves sensitivity and specificity in diagnosing neuro-visual disorders, including glaucoma, when used in conjunction with other diagnostic tests.

## Vision Testing

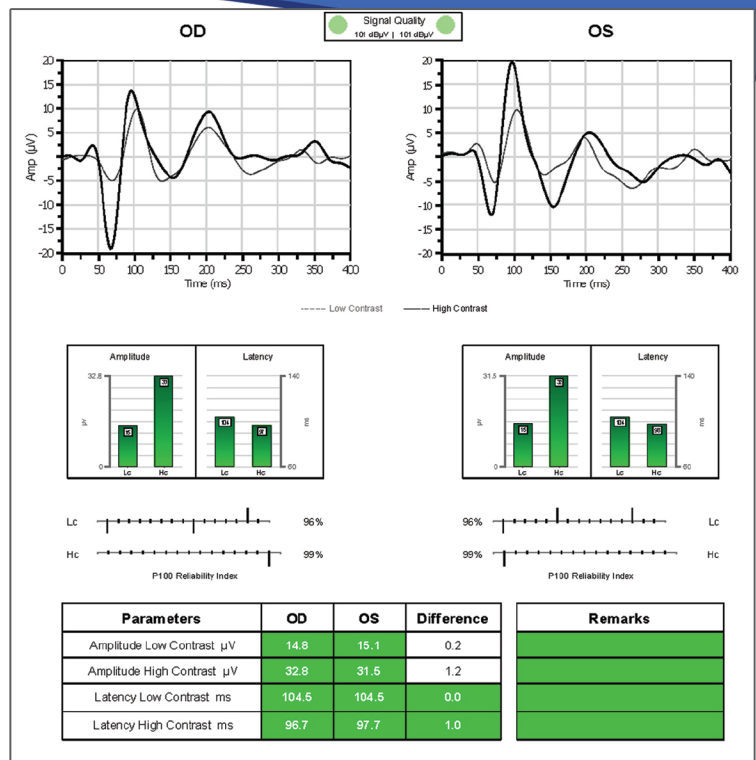
- **Diopsys® NOVA-LX Protocol:** Created to provide doctors with an easy-to-follow advanced protocol that guides them through the test procedure. Results of low contrast tests show responses from the magnocellular pathway, and high contrast tests show responses from the parvocellular pathway.
- **Diopsys® NOVA-TR Protocol:** Designed to allow the doctor to customize the testing parameters for the patient and pathology.

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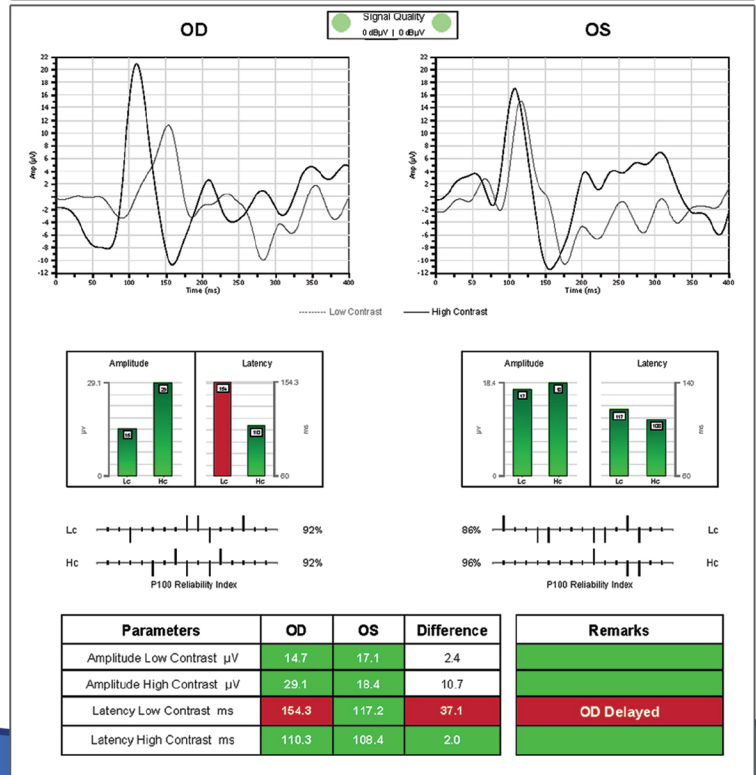
## Example Normal Patient

- Clear N75-P100-N135 waveform shapes
- High amplitude (uV) values
- Latency values within acceptable limits
- Relative symmetry between OD and OS



## Example Patient Diagnosed with Glaucoma

- Less clearly defined N75-P100-N135 waveform shape Low Contrast (Lc) OD
- Delayed Low Contrast (Lc) Latency OD
- Significant difference in Lc Latencies between OD and OS



To learn more, visit [www.diopsys.com/VEP](http://www.diopsys.com/VEP)

<sup>1</sup> Prata TS, Lima VC, De Moraes CG, Trubnik V, Derr P, Liebmann JM, Ritch R, Tello C. Short Duration Transient Visual Evoked Potentials in Glaucomatous Eyes. J Glaucoma. 2011 May 10. [Epub ahead of print]

<sup>2</sup> Naismith et al. Optical coherence tomography is less sensitive than visual evoked potentials in optic neuritis. Neurology. 2009 Jul 7;73(1):46-52.

<sup>3</sup> McKerral et al. Visual and Cognitive Information Processing after Traumatic Brain Injury: VEP and ERP Studies. Invest Ophthalmol Vis Sci 2002;43: E-Abstract 1803.

<sup>4</sup> Simon J, Siegfried J, Mills M, Calhoun J, Gurland J. A New Visual Evoked Potential System for Vision Screening in Infants and Young Children. Journal of AAPOS. 8.6 (2004): 549-554.