

OPHTHALMIC OFFICE

PRODUCTS AND THEIR APPLICATIONS FOR OPTOMETRY

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MONITORING CORNEAL HEALTH AND CODING DRY EYE



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- CLS THAT FIT CHILDREN'S LIFESTYLES
- **NEW PURIFIED TRIGLYCERIDE FORM OF OMEGA-3S**

VEP Testing in Modern Optometry

By Craig Thomas, OD The Diopsys NOVA-DN VEP provides more accurate data for decision-making.

Office-based electrodiagnostic testing became a reality with the introduction of Diopsys, Inc.'s NOVA-DN VEP testing device. After purchasing our instrument, my partner and I attained the most significant advancement in delivering clinical care since adding our OCT scanning laser years ago.

VEP

The visual evoked potential (VEP) is an objective electric signal of visual pathway function; its parameters are sensi-

tive to abnormalities in the visual system. Diopsys NOVA-DN uses a patterned-stimulus to generate visual evoked potentials. Test results are comprised of VEP waveforms displayed in a two-dimensional graph. By measuring the speed and strength of the evoked response along the visual pathway, VEP testing evaluates the integrity of the afferent visual sensory system.

Many diseases affect the structure and function of the visual system. If these pathologic processes involve the optic nerve and its radiations, abnormalities in the VEP waveform may be seen.

ANALYSIS

Unlike traditional VEP testing, the NOVA-DN separates the VEP response into a high- and a low-contrast response. The high-contrast response represents the integrity of parvocellular neural conduction channel and the low-contrast response represents the magnocellular channel.

The NOVA-DN test report allows for both qualitative and quantitative analysis. A qualitative analysis of waveform shape becomes as easy as

interpreting the gray scale on a visual field printout. A color-coded bar chart provides latency and amplitude values, making a quantitative analysis of the test results quick and simple.

DECISION-MAKING

Recent studies demonstrated that patients with glaucoma may have abnormal VEP test results. Most commonly, a delayed latency of the low-contrast response is seen; but reduced amplitudes and waveform perturbation are also found.

I already have several patients with unreliable visual fields and normal nerve fiber layer scans that I diagnosed with glaucoma based on the additional information provided by abnormal VEP test results. Conversely, I have instances where I decided to delay treatment because of normal VEP test results.

In addition, I've become more skilled at co-managing multiple sclerosis patients. Because optic neuritis is so common in this group of patients, VEP testing is one of the best



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ways to determine whether the disease is active or in remission. I've reached out to area neurologists offering to perform baseline VEP testing on patients diagnosed with multiple sclerosis and already received referrals for the procedure. VEP testing has also been helpful in patients with a history of stroke, amblyopia, and unexplained reduced acuity and visual field defects.

CPT Code 95930, VEP testing central nervous system, is an established procedure code. According to the *Medicare National Coverage Determination Manual* in reference to 160.10 Evoked Response Tests, "Program payment may be made for these procedures."

The NOVA-DN VEP has been an essential addition to my practice—it's valuable both for me and my patients. **OO**

Craig Thomas practices at 1st Eye Care in Dallas, TX.

COMMENTS FROM THE DOCS

"The test takes less time than other devices, which is more comfortable for patients."

—Frank Bucciero, OD,
Family Vision Care, Springfield,
NJ

"The entire NOVA-DN VEP process, from installation and training to ongoing support, has been both enjoyable and educational."

—Paula Johnson, OD,
Johnson Vision Development
Center, Jackson, TN

"VEP results were obtained objectively, which helps give eyecare specialists more confidence in the findings."

—Robert Ritch, MD,
Chief, Glaucoma Service,
New York Eye & Ear Infirmary, and
Professor, New York Medical College

WHERE TO FIND IT:

Diopsys, Inc. • 973-244-0622 • diopsys.com