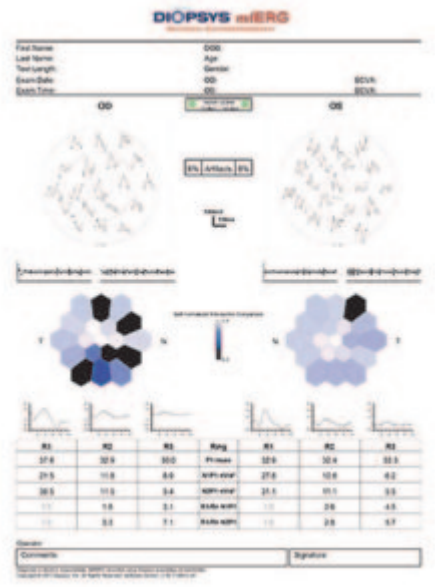
Diopsys Introduces the Latest in Electrophysiology Testing At ASCRS
RETINA PLUS and multifocal electroretinography (mfERG) will offer eye care experts access to powerful new tools for understanding the health of the retina

Diopsys Inc, the world leader in modern visual electrophysiology, is announcing the latest advancements in visual electrophysiology testing for the ophthalmic practice.

Diopsys unveiled two new additions to its portfolio at the American Society of Cataract and Refractive Surgery (ASCRS) meeting: the Diopsys® RETINA PLUS™, the most advanced flicker electroretinography (ERG) system, scalable to create a complete visual electrophysiology suite; and a multifocal electroretinography (mfERG) module for use with Diopsys® NOVA™, Diopsys® ARGOS™, or the new RETINA PLUS™ platforms. The additions will add powerful new tools to help eye care specialists gather objective, quantifiable information about the function of the retina.

Diopsys® RETINA PLUS™ is a carry-case sized device that offers clinicians a more convenient way to conduct flicker ERG testing, with the added ability to scale the system to a full visual electrophysiology suite, including multifocal, flash, and pattern ERG, as well as visual evoked potential (VEP). The new device complements existing cart-based (Diopsys® NOVA™) and tabletop (Diopsys® ARGOS™) systems in a robust portfolio of testing platforms intended to provide clinics of all sizes access to visual electrophysiology testing.



Diopsys® mfERG is a test of localized retinal function, which measures the electrophysiological activity of individual regions within the retina that span the central 42°. The test records responses primarily from bipolar cells combined with contributions from photoreceptor cells.[1] With capability to detect retinal functional losses due to maculopathies, mfERG has several applications in eye care. The

American Academy of Ophthalmology (AAO) recommends the use of mfERG for chloroquine (CQ) and hydroxychloroquine (HCQ) retinopathy screening.[2]

“Electrophysiology testing is a proven and well-established mechanism for understanding the functional status of the retina with myriad applications in eye care. ERG has a role across the continuum of care, from establishing a diagnosis to following patients over time to determine response to treatment. These latest offerings from Diopsys reaffirm the company’s commitment to providing eye care specialists with accessible, intuitive testing platforms for monitoring the health of the retina,” said William E. Sponsel, MD.

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Diabetic Retinopathy Management: An Advanced Approach

Patients with diabetic retinopathy can present difficult clinical questions, even to the most experienced experts. Whether and when to administer treatment and how to gauge effectiveness are topics that have been front and center in eye care for a long time. More fundamentally, understanding precisely how the disease is affecting the health of the eye has proven challenging, because while measurements like vision loss signify disease progression, visual acuity recovery after treatment does not necessarily correlate with improvement in underlying structure and function.

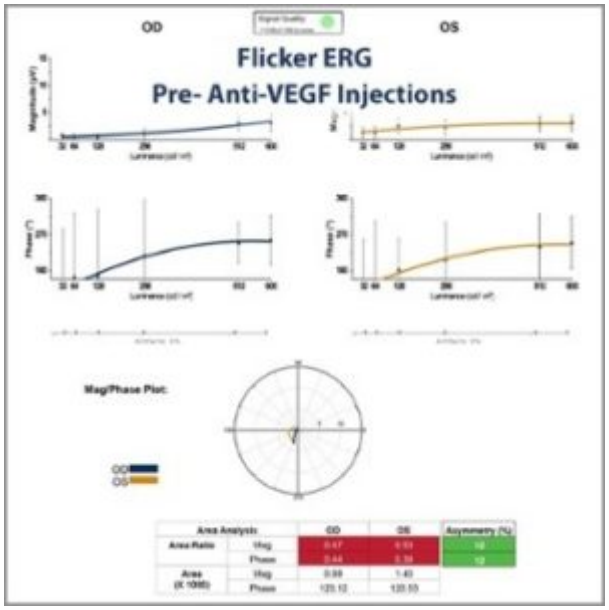
Structural Diagnostics

Structural diagnostic testing used to track diabetic retinopathy, such as OCT and fundus photography, have a defined role in understanding how a patient’s retina is being affected. Over time, serial imaging can demonstrate progression; in the context of diabetic macular edema, it can also show the degree of swelling and areas being affected. After treatment, OCT can depict resolution of swelling and other clinical findings that often correlate with improvement in vision—but this still provides little information about whether the retina is functioning or recovering properly.

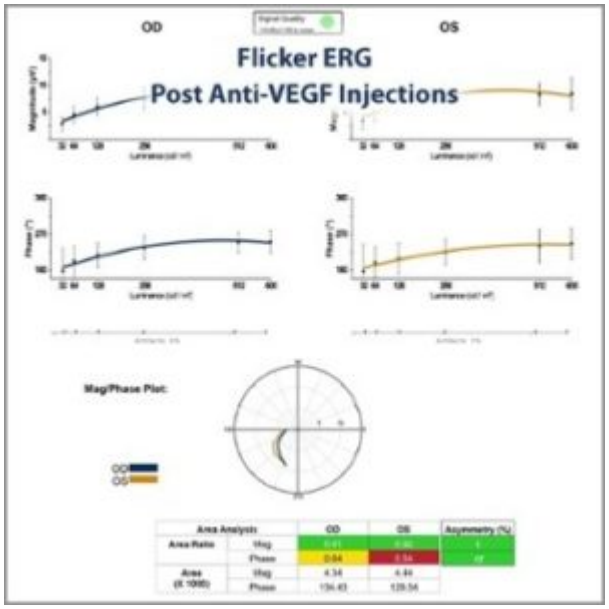
Modern Diagnostics

Another form of diagnostic testing, full field electroretinography (ffERG), provides objective information on retinal function loss and recovery—data that is integral to the ability to stage the

disease, understand the appropriate treatment for your patients and clinical endpoints, and titrate treatment to make sure they are receiving the best medical care.[1-6]



Flicker ERG (a step of the standard ISCEV ffERG that flashes at ≥ 30Hz) provides objective information about the function of the cones that is relevant across the spectrum of diabetic retinopathy. By measuring the summed electrical responses of cone cells within the retina to a flash stimulus from a hand-held mini-ganzfeld, flicker ERG can help identify early pathologic changes that precede disease progression or loss of vision.[4] In later disease states, flicker ERG demonstrates the viability of retinal cells, allowing doctors to evaluate the level of retinal dysfunction, and, in turn, classify the severity of ischemia in eyes with diabetic retinopathy.[1-5] In advanced or unresponsive cases, information from these electrodiagnostic tests can be relevant when considering switching therapy options.



Some of the greatest challenges in diabetic retinopathy surround treatment choices, and this may be where flicker ERG is of greatest benefit, as the test is an indicator of who is at risk for progression, how likely a patient is to respond to treatment, and whether function has been lost or recovered in response to treatment.[1-6]

Conclusion:

When it comes to managing diseases of the human eye, the availability of crucial information about the health of visual function can make all the difference in the outcome. For the estimated 30 million Americans living with diabetes—about 7.7 million of whom have some form of diabetic retinopathy and almost all of whom will develop ocular manifestations of diabetes in their lifetime[7-8]—the ability to detect diabetic retinopathy and target and adjust treatment over time means saving vision.

The dependability and reproducibility[9-10] of Diopsys flicker ERG test results fosters improved ability to make crucial clinical decisions that may preserve the health of the eye. And thus, the objective, functional information that flicker ERG provides places you ahead of systemic manifestations on vision and reduces the risk of under or overtreatment to make sure your patients are receiving the best medical care.

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