

Electroretinography (ERG)



ERG helps doctors gain *objective, functional* information about the performance of the inner retinal cells of the eye. ERG has been recognized as an effective test in helping to diagnose and monitor vision disorders including Age-Related Macular Degeneration (AMD), Glaucoma and Diabetic Edema.¹⁻³



Objective

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

Functional

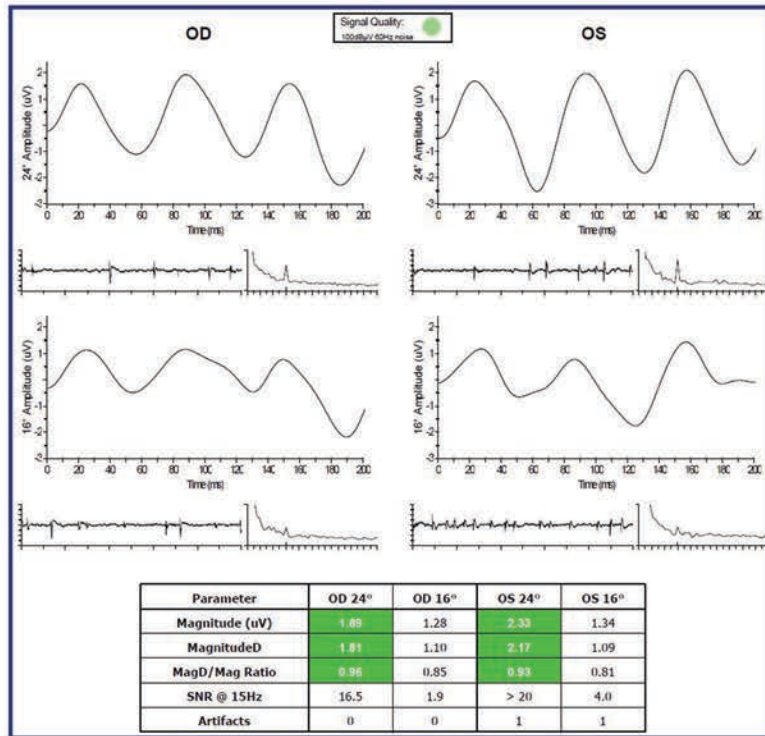
- Complements structural studies with an analysis of retinal function that is affected by disease or trauma.
- Improves sensitivity and specificity in diagnosing vision disorders when used in conjunction with other diagnostic tests.

Vision Testing

- **Contrast Sensitivity Protocol:** Provides data to aid in the detection of diseases that affect the retina in a diffuse pattern like Chronic Open Angle Glaucoma (COAG) and Diabetic Retinopathy (DR). Since there is typically no specific topographic pattern of damage, the information collected using this protocol can help in detecting the depth of the macular dysfunction.
- **Concentric Stimulus Fields Protocol:** Provides data to aid in the detection of diseases affecting the central or paracentral area of the macula in specific topographic patterns like Age-Related Macular Degeneration (AMD), Diabetic Macular Edema (DME) and Toxic Maculopathies (e.g. Plaquenil Maculopathy).

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DIOPSYS® NOVA-ERG OFFICE BASED PATTERN ELECTRORETINOGRAPHY TESTING



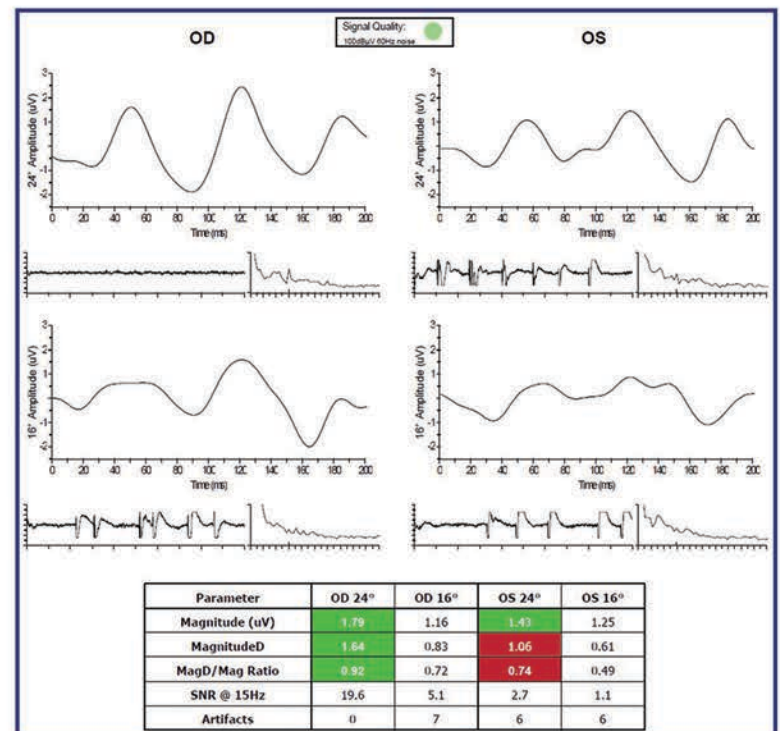
Example of Normal Patient

- All measured parameters (Mag, MagD, MagD/Mag ratio) are within normal statistical ranges (all green).
- Colorized results for statistical normals are for 24° responses only.

Example of Abnormal Patient

- OD within normal statistical ranges (all green).
- MagD/Mag Ratio out of statistical ranges for OS 24°.
- Although OS 24° Mag value appears normal, MagD/Mag Ratio is outside the normal range.
- Colorized results for statistical normals are for 24° responses only.

To learn more, visit www.diopsys.com/ERG



¹Banitt et al. Progressive Loss of Retinal Ganglion Cell Function Precedes Structural Loss by Several Years in Glaucoma Suspects. *IOVS*, March 2013, Vol. 54, No. 3 (From the Bascom Palmer Eye Institute, supported by Grant National Institutes Health—National Eye Institute (NIH-NEI), NIH Center Grant, and Research to Prevent Blindness)

²Oner et al. Pattern electroretinographic results after photodynamic therapy alone and photodynamic therapy in combination with intravitreal bevacizumab for choroidal neovascularization in age-related macular degeneration. *Doc Ophthalmol*. 2009 Aug;119(1):37-42. doi: 10.1007/s10633-009-9167-8.

³Ozkiris A. Pattern electroretinogram changes after intravitreal bevacizumab injection for diabetic macular edema. *Doc Ophthalmol* 2010;120:243-50.

Diopsys is FDA 510(k) cleared; IEC 60601 Certified and follows ISCEV guidelines in stimulus presentation and electrophysiological data collection.