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For Immediate Release: New Changes to Diabetes Screening — American Academy of ophthalmology updates Eye Care Guidelines for Diabetic Patients (March 2025)

Important Changes in Eye Exams for People with Diabetes

This year, the American Academy of Ophthalmology (AAO) updated its *Preferred Practice Pattern*® (PPP) Guidelines for Diabetic Retinopathy (DR), adding a major new tool to the standard diabetic eye exam: **electroretinography (ERG)**. This update reflects the growing need for better, earlier detection of eye problems caused by diabetes.

Roughly ten years ago, Dr. Blake A. Cooper outlined ten essential steps in a diabetes-related eye exam. These are still the foundation of quality diabetic eye care today. They include:

1. **Medical History** – Understanding how long a person has had diabetes, how well it's controlled, and any changes in vision.
2. **Visual Acuity Test** – Checking how clearly a person can see.
3. **Pupil Exam** – Making sure the pupils react normally to light and are the same size.
4. **Eye Movement (Motility)** – Testing how the eyes move and checking for nerve issues.
5. **Eye Pressure (IOP)** – Measuring pressure inside the eye, which can indicate risk for glaucoma.
6. **Peripheral Vision Test** – Checking side vision to catch early signs of nerve or retina problems.
7. **External Eye Exam** – Looking at the eyelids, white of the eye, and iris for signs of disease.
8. **Slit-Lamp Exam** – Using a microscope to look closely at the front of the eye.
9. **Dilated Eye Exam** – Examining the retina for damage, including bleeding or new abnormal blood vessels.
10. **Imaging Tests** – Using tools like OCT (optical coherence tomography), fundus photography, and others to track disease progression and treatment needs.

What's New in 2025?

The biggest change in the new guidelines is the inclusion of **electroretinography (ERG)**—a test that measures retinal function. This test gives doctors a direct look at problems before they become visible through standard imaging.

While ERG has been used in research for years, it was not widely used in regular clinics because older machines were large and difficult to operate. Now there is an FDA-approved, handheld device doesn't require dilating the eyes and is easy to use in most eye care offices. It gives quick, objective results about how well the retina is working. **Doctors at TACOMA EYE at Westgate expect to have this "RETeval" Handheld ERG device shortly.**

Why This Matters

Dr. Sruthi Arepalli of Emory University School of Medicine said, "We need an objective test like ERG alongside imaging. ERG helps us find signs of retinal damage earlier, which means we can treat patients sooner and more effectively"

Recent research supports this idea. A 2021 study published in *Eye* found that retinal function can begin to decline even before physical damage is visible. This makes ERG a valuable tool for detecting problems at an earlier stage.

Diabetic retinopathy remains a serious concern. A 2023 study in *JAMA Ophthalmology* estimated that 9.6 million Americans had diabetic retinopathy in 2021, with 1.84 million suffering from vision-threatening stages of the disease.

ERG may help improve outcomes. According to a study in *Translational Vision Science & Technology*, combining ERG results with imaging gives doctors a better way to predict which patients are most at risk of vision loss.

What This Means for Diabetic Patients

These updated guidelines mark a turning point in diabetic eye care. Adding ERG to standard exams means doctors can spot trouble earlier and provide more personalized treatment plans. Patients benefit from quicker interventions and better protection of their vision.



www.Tacoma-Eye.com

TACOMA EYE at Westgate

6004 N Westgate Blvd Suite #180

Tacoma, WA 98406

253-220-2563

Further Reading

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3. Ratra D, Nagarajan R, Dalan D, et al. *Early structural and functional neurovascular changes in the retina in the prediabetic stage*. *Eye (Lond)*. 2021;35(3):858–867. doi:10.1038/s41433-020-0984-z.
4. Lundeen EA, Burke-Conte Z, Rein DB, et al. *Prevalence of diabetic retinopathy in the U.S. in 2021*. *JAMA Ophthalmol*. 2023;141:747–54.
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