

Practical Guide to Diabetic Retinopathy Vision Screening Recommendations and Disease Severity Classification

Vision Screening Guidelines for Patients With Diabetes per the ADA and the AAO

Schedule of Eye Exams ^{1,2}	First Retinal Exam (ADA and AAO)	Subsequent Retinal Exams (ADA)	Subsequent Retinal Exams (AAO)
Type 1 diabetes	Within 5 y of diagnosis	Every 1-2 y (if no DR, diabetes well controlled), OR at least annually (any sign of DR)	Yearly
Type 2 diabetes	At time of diagnosis		
Planning pregnancy or pregnant	Before pregnancy or in first trimester	Every trimester and for 1 y postpartum	Every 3-12 mo (no retinopathy to mild or moderate NPDR), OR every 1-3 mo (severe NPDR)

AAO, American Academy of Ophthalmology; ADA, American Diabetes Association; DR, diabetic retinopathy; NPDR, nonproliferative diabetic retinopathy
 1. ADA. Taking charge of your diabetes and eye health. <https://diabetes.org/diabetes/eye-health/understand-eye-conditions>. 2022. Accessed 11/29/22.
 2. AAO. *Ophthalmology*. 2020;127:P66-P145.

Vision Screening Tools

Tool	Clinical Use
Fundus photography (retinal imaging)	Gold standard for evaluating presence and severity of DR/DME
Optical coherence tomography (OCT)	Quantify degree of retinal thickening; evaluate macular edema and vitreo-retinal interface abnormalities
Fundus angiography (FA)	Identify vascular leakage and treatable lesions

DME, diabetic macular edema. AOA. Eye care of the patient with diabetes mellitus: Second edition. 2019. www.aoa.org/practice/clinical-guidelines/clinical-practice-guidelines?sso=y. Accessed 11/29/22.

Classification of Severity of Diabetic Retinopathy

	Retinal Findings
Mild NPDR	Microaneurysms only
Moderate NPDR	≥1 microaneurysm or hemorrhage and ≥1 of the following: <ul style="list-style-type: none"> • Retinal hemorrhages • Cotton wool spots • Hard exudates • Venous beading
Severe NPDR	Any of the following but no sign of PDR: <ul style="list-style-type: none"> • >20 intraretinal hemorrhages in each quadrant • Definite venous beading in ≥2 quadrants • Prominent intraretinal microvascular abnormality in ≥1 quadrant
PDR	Neovascularization or vitreous/preretinal hemorrhage

PDR, proliferative diabetic retinopathy
 Koetting C. *Modern Optometry*. 2019;6:21-24.



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