



Full Eye Care

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1 WHO SHOULD BE TESTED FOR DIABETIC RETINOPATHY AND HOW OFTEN?

- Patients with type 1 diabetes should typically be tested 5 years after onset of disease, and patient with type 2 diabetes at the time of diagnosis. Screening can be annual if no retinopathy is present on initial exam. If there is retinopathy, further evaluation will need to happen more frequently, and Dr. Ali will discuss optimal times for re-evaluation at your appointment.
- Diabetic retinopathy can accelerate at a faster pace for patients with diabetes who then become pregnant or at the time of puberty; and particularly close follow up should occur during those times. (This does not apply to gestational diabetes).

2 WHAT ARE THE STAGES OF DIABETIC RETINOPATHY AND WHAT DO THEY MEAN?

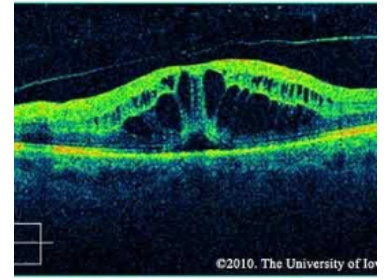
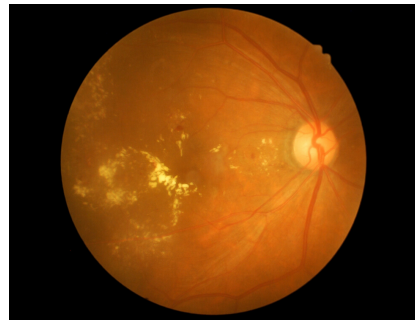
- If you have been told you have diabetic retinopathy, this means there are tiny blood vessels in your retina that leak fluid. Initial stages are known as mild or moderate non-proliferative diabetic retinopathy.
- In time, these leaky blood vessels can cause thickening of the macula, or the central part of your retina where fine-focus vision takes place. This is known as macular edema
- Leaky blood vessels may also cause abnormal growth of unhealthy blood vessels, called neovascularization. Once new vessels develop, the disease is known as proliferative diabetic retinopathy.



left image: normal retina

right: moderate to severe non proliferative retinopathy with microaneurysms and dot blot hemorrhages throughout the posterior pole.

Photo credit: eyerounds.org



left image: formation of new, unhealthy blood vessels known as neovascularization
middle: hard exudates and adjacent fluid in the central retina, known as macular edema
right: Optical coherence tomography of a patient with macular edema showing swelling in the layers of the retina
Photo credit: eyerounds.org

3 HOW CAN I PREVENT MYSELF FROM GETTING DIABETIC RETINOPATHY

- Following the guidance of your primary care provider (PCP) and controlling sugars is critical. Checking your sugars at home, modifying diet based on your sugar control, exercising regularly, and taking prescribed medications will all help bring your diabetes under control and reduce your risk for diabetic retinopathy.



- Controlling any other co-existing problems you may have (high cholesterol, hypertension) can also help reduce risk of damage to all end organs, including your eyes.

4 WHAT IS THE TREATMENT FOR DIABETIC RETINOPATHY?

- Macular edema is treated with injections of anti-vascular endothelial growth factor (VEGF) medications such as bevacizumab.
- Proliferative diabetic retinopathy is treated with a combination of anti-VEGF injections and laser.

For more information, please visit:

<https://www.aao.org/eye-health/diseases/what-is-diabetic-retinopathy>

<https://www.aao.org/eye-health/diseases/diabetic-retinopathy-treatment>

<https://webeye.ophth.uiowa.edu/eyeforum/tutorials/Diabetic-Retinopathy-Med-Students/TreatmentOpts.htm>

<https://www.aao.org/preferred-practice-pattern/diabetic-retinopathy-ppp>