

Shining the Spotlight on

Diabetic Retinopathy

What Is Diabetic Retinopathy?

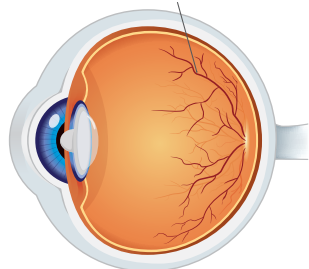
Diabetic retinopathy is an eye condition that affects people with diabetes. Diabetic retinopathy can be mild, moderate, severe, or proliferative. **It can cause blindness.** Severity (how bad it is) depends on how long you have had diabetes and how well your blood glucose (HbA1c) is controlled.

What Are the Stages of Diabetic Retinopathy?

Normal



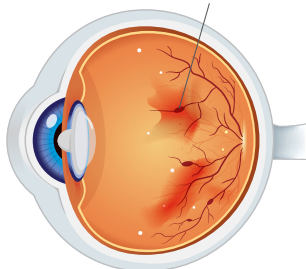
Healthy blood vessels



Diabetic Retinopathy



Tiny blood vessels leak fluid into the retina



The longer someone has uncontrolled diabetes, the more likely they are to develop diabetic retinopathy.

Early stages of diabetic retinopathy are called **nonproliferative diabetic retinopathy (NPDR)**, and can be mild, moderate, or severe. At this stage, the blood vessels are becoming damaged and fluid is leaking, but there is no new formation of blood vessels (nonproliferative). Advanced stage is called **proliferative diabetic retinopathy (PDR)**; this is when new blood vessels start to grow (proliferate).

Risk Factors



Time: The longer the duration of diabetes, the higher the risk

HbA1c: Poorly controlled blood sugar increases the risk



Obesity



High cholesterol



High blood pressure

How Does Diabetes Affect Eye Health?

When diabetes is uncontrolled over time, too much sugar in your blood can damage the tiny blood vessels in your retina (the light-sensitive layer of tissue at the back of the eye) and vitreous (the clear jelly-like substance in the center of the eye). Retinas need a healthy supply of blood or they cannot absorb light and send signals through nerves to the brain.



Blurred vision



Double vision



Patchy vision loss

Once these blood vessels are damaged, fluid leaks into the retina. New, weaker, leaky blood vessels grow to replace the damaged blood vessels. This combination of damaged and new blood vessels causes spots, blurry vision, and patchy vision. If diabetic retinopathy is not diagnosed and treated, it can cause blindness.

It can be a very *serious* condition.

How Can You Protect Your Eyesight?

Manage Your Health



Controlling your diabetes is the first step. Make sure you take your medications, eat a healthful diet, get exercise, and manage your blood glucose. If you have cardiovascular (heart) issues, like high blood pressure or high cholesterol, it's also important to make sure you follow any care plans you have been given. Because blood vessels are affected by diabetic retinopathy it is important to pay attention to your cardiovascular health. And if you are a smoker, it's time to stop.

Get Your Yearly Comprehensive Dilated Eye Exam



A comprehensive dilated eye exam is more than a test of your eyesight, although that will be checked, too. The comprehensive dilated eye exam shows the physical state of the eye itself. You will need to see an optometrist or ophthalmologist who has special equipment to look into your eye and view your retina. The optometrist or ophthalmologist will be able to tell if you have diabetic retinopathy from these tests.

Pay attention to any changes in eyesight and let your doctor know. Even if it's not time for your yearly exam, any changes in eyesight mean you should get your eyes tested.

95%
of severe vision loss from diabetic retinopathy can be prevented by early diagnosis, treatment, and follow-up.

Can Treatment Help? **YES**

There are a number of treatments available, including:



Photocoagulation: Laser therapy that stops the growth of new blood vessels to prevent worsening eyesight. It cannot correct already damaged eyesight.



Anti-vascular endothelial growth factor (VEGF) therapy: Injection of medications called anti-VEGF therapy into the vitreous to stop the growth of new blood vessels. There are two medications currently approved for this treatment, aflibercept (Eylea) and ranibizumab (Lucentis). Your doctor will use a numbing agent and then inject the anti-VEGF medication into your eye. These injections will be given every one or two months at your doctor's office, depending on the care plan your doctor recommends.



Vitrectomy: Surgery to remove blood and scar tissue.



Talk with your doctor about any questions you have about diabetic retinopathy and your treatment plan.



This information is provided for educational and informational purposes only and is not intended to replace the advice of a qualified healthcare professional. Developed by Paradigm Medical Communications, LLC, and supported by an independent medical education grant from Regeneron Pharmaceuticals, Inc.

