

Diabetic Retinopathy

What is diabetic retinopathy?

Diabetic retinopathy has two main forms: nonproliferative diabetic retinopathy (NPDR) and proliferative diabetic retinopathy (PDR). NPDR is the early stage of the disease. With NPDR, damaged blood vessels in the retina leak fluid and blood into the eye. Cholesterol or other fat deposits from blood, called hard exudates, may leak into the retina. Central vision is damaged by NPDR. With PDR, abnormal blood vessels grow on the surface of the retina or optic nerve and can't provide normal blood flow. PDR can cause severe visual loss and other serious complications, such as neovascular glaucoma and loss of the eye.

How is diabetic retinopathy diagnosed?

It is important to have your blood sugar controlled for several days before seeing your ophthalmologist for an eye exam. During that exam, several tests can be performed, including fluorescein angiography, optical coherence tomography (OCT) and ultrasound. These tests help the ophthalmologist determine why vision is blurred and what treatment is most appropriate to help preserve vision.

How is diabetic retinopathy treated?

There are several treatment options depending on your condition, including:

- **Laser surgery** for macula edema, to prevent or slow down further vision loss. The laser is focused on the retina near the macula to decrease fluid leakage.
- **Panretinal photocoagulation** for PDR, to shrink abnormal blood vessels and prevent them from growing again. The laser is focused on all parts of the retina except the macula.
- **Vitrectomy surgery** for advanced PDR, to remove the blood-filled vitreous and prevent further bleeding and traction detachment. This microsurgical procedure is performed in the operating room.

Regular visits to your ophthalmologist help prevent vision loss. Most diabetics retain normal eyesight, and treatment is effective at preventing further vision loss.