

MANAGING YOUR DIABETIC RETINOPATHY

What Is Diabetic Retinopathy?

Diabetic retinopathy is an eye disease caused by diabetes mellitus. It affects the retina, the part of the eye that lets us see. Diabetes hurts the retina's tiny blood vessels and can cause swelling and leaking of fluid into the eye. Extra retinal blood vessels can grow, which damages eyesight.

Diabetic retinopathy is the leading cause of blindness in people 20 to 70 years old. All people with diabetes—type 1 or 2—are at risk. Almost half of Americans with diabetes have some stage of diabetic retinopathy. There are four stages of diabetic retinopathy. The first is early mild nonproliferative retinopathy, with small balloon-like swollen areas in tiny retinal blood vessels. Then moderate nonproliferative retinopathy occurs, with blocked blood vessels. Severe nonproliferative retinopathy follows (more blood vessels are blocked, and new vessels grow). In the advanced stage (proliferative retinopathy), new abnormal, fragile blood vessels grow along the retina and watery soft gel (vitreous gel) inside the eye.

What Causes Diabetic Retinopathy?

Damaged blood vessels can cause vision loss when fragile, abnormal blood vessels grow and leak blood into the center of the eye. This advanced stage is called proliferative retinopathy.

Also, fluid can leak into the center of the macula of the eye, where sharp, straight-ahead vision occurs. The macula swells (macular edema) and vision becomes blurry.

What Are the Symptoms of Diabetic Retinopathy?

Symptoms include seeing a few specks of blood or floating spots. Bleeding (hemorrhages) in the vitreous can occur, without pain, and lead to blurred vision or blindness. Diabetic retinopathy often has no warning signs.

How Is Diabetic Retinopathy Diagnosed?

The health care provider makes a diagnosis by doing an examination to look for leaking blood vessels, retinal swelling, damaged nerve tissue, and pale fatty deposits on the retina. The health care provider may order fluorescein angiography (using a special dye to see leaking vessels).

How Is Diabetic Retinopathy Treated?

For early disease, no treatment may be needed.

Two treatments can help people with advanced disease: laser surgery and vitrectomy (another operation). In the first procedure, which is painless, a laser beam is used to destroy abnormal blood vessels. Focal laser surgery is used for macular edema; a small laser burns slow leakage from vessels. A similar scatter laser treatment helps shrink abnormal blood vessels in proliferative retinopathy. In vitrectomy, blood that leaked from vessels is removed.

Control of blood sugar (glucose) levels and other risk factors (blood pressure and cholesterol) is important to prevent worsening disease.

DOs and DON'Ts in Managing Diabetic Retinopathy

- ✓ **DO** watch your diet to control blood sugar levels.
- ✓ **DO** exercise.
- ✓ **DO** remember that untreated diabetic retinopathy can cause severe vision loss and blindness.
- ✓ **DO** remember that macular edema may need focal laser treatment more than once.
- ✓ **DO** call your health care provider if you have symptoms of uncontrolled diabetes (e.g., increased thirst, increased urination, increased appetite with weight loss).
- ✓ **DO** call your health care provider if you notice vision changes.

- ⊗ **DON'T** smoke or drink alcohol.

- ⊗ **DON'T** wait until you have symptoms. Get yearly eye examinations.

- ⊗ **DON'T** forget that proliferative retinopathy and macular edema can develop without symptoms.

FROM THE DESK OF

NOTES

FOR MORE INFORMATION

Contact the following sources:

- American Academy of Ophthalmology: Tel: (415) 561-8500; Website:
<http://www.aao.org>

- American Diabetes Association: Tel: (800) DIABETES (342-2383); Website:
<http://www.diabetes.org>

- National Eye Institute: Tel: (301) 496-5248; Website: <http://www.nei.nih.gov>

Copyright © 2021 by Elsevier, Inc.