



Patient education: Diabetic retinopathy (The Basics)

Written by the doctors and editors at UpToDate

Please read the [Disclaimer](#) at the end of this page.

What is diabetic retinopathy?

This is an eye problem that can lead to vision loss and even blindness. Having blood sugar levels that are above goal increases the risk of retinopathy.

What are the symptoms of diabetic retinopathy?

Most people have no symptoms during the early stages of the disease. This is when treatment works best. For this reason, it is important to get screened for the condition early. That way, you and your doctors can take steps to protect your eyes before your vision is damaged.

When symptoms start, they can include:

- Blurry vision
- Dark or floating spots ([picture 1](#))
- Trouble seeing things that are at the center of your focus when reading or driving
- Trouble telling colors apart

Is there a test for diabetic retinopathy?

Yes. There are 2 main tests to check for diabetic retinopathy:

- **Dilated eye exam** – The eye doctor gives you eye drops to make your pupils wider. (The drops make it easier for the doctor to see the different parts of the inside of your eye.) Then, the doctor looks at the back of your eye, called the retina. That's the part that is damaged by diabetic retinopathy.
- **Digital retinal imaging** – A technician takes pictures of your eye with a special camera. They send the pictures to an eye doctor, who checks for disease. It is OK to use this test if your past eye tests have all been normal. Otherwise, you should have a dilated eye exam.

If either test shows a problem, the eye doctor might suggest other tests, too.

People with diabetes should have their eyes checked regularly. If you have retinopathy, you need to get checked at least once a year, maybe more. If not, you might only need to get checked every 2 years. Your doctor will work with you to decide on a schedule.

- If you have type 1 diabetes, eye exams should start 3 to 5 years after diagnosis.
- If you have type 2 diabetes, eye exams should start right after diagnosis.

How is diabetic retinopathy treated?

Keeping your blood sugar and blood pressure levels in the goal range can help prevent diabetic retinopathy from getting worse.

Other treatments can include:

- **Photocoagulation** – This is laser surgery to seal or destroy leaking or growing blood vessels in the retina.
- **Vitreotomy** – This is surgery to remove blood from the part of the eye called the "vitreous humor" ([figure 1](#)). Doctors do this if the blood vessels in the retina leak into the vitreous humor.
- **Medicines** – Medicines that are injected into the vitreous humor are sometimes used alone or along with other treatments. Your eye doctor will let you know if medicines might help you.

Can diabetic retinopathy be prevented?

Yes. If you have diabetes, you can reduce your chances of getting diabetic retinopathy by keeping your blood sugar and blood pressure levels as close to your goal as possible. It might also be important to keep cholesterol levels in the normal range.

When should I call the doctor?

If you notice any changes in your vision, tell your doctor right away.

In people with diabetes, not all vision changes are caused by retinopathy. Vision loss or dark spots in your vision are signs that you should see an eye doctor as soon as possible.

More on this topic

[Patient education: Age-related vision loss \(The Basics\)](#)

[Patient education: Age-related macular degeneration \(The Basics\)](#)

[Patient education: Cataracts \(The Basics\)](#)

[Patient education: Open-angle glaucoma \(The Basics\)](#)

[Patient education: Type 1 diabetes \(The Basics\)](#)

[Patient education: Type 2 diabetes \(The Basics\)](#)

[Patient education: Preventing complications from diabetes \(Beyond the Basics\)](#)

[Patient education: Type 1 diabetes: Overview \(Beyond the Basics\)](#)

[Patient education: Type 2 diabetes: Overview \(Beyond the Basics\)](#)

All topics are updated as new evidence becomes available and our [peer review process](#) is complete.

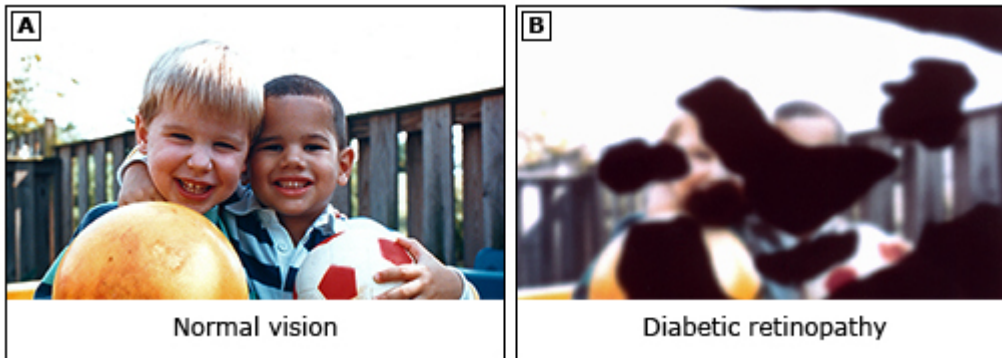
This topic retrieved from UpToDate on: Dec 20, 2024.

Disclaimer: This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at <https://www.wolterskluwer.com/en/known-clinical-effectiveness-terms>. 2024© UpToDate, Inc. and its affiliates and/or licensors. All rights reserved.

Topic 15847 Version 10.0

GRAPHICS

How diabetic retinopathy affects vision

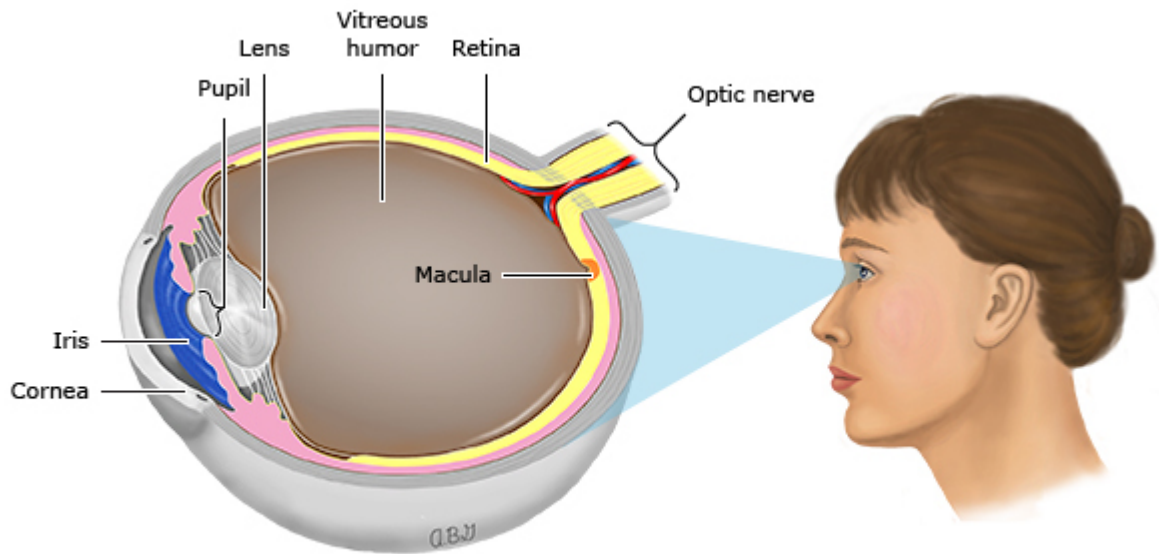


Diabetic retinopathy can impair vision and cause dark spots in your vision.

Reproduced from: the National Eye Institute. Available at: <http://www.nei.nih.gov/health/examples/>.

Graphic 63624 Version 2.0

Common eye disorders



Section through eyeball

Vision loss can be caused by different problems in the eye:

- Presbyopia makes it hard for the lens to focus.
- Cataracts make the lens cloudy.
- Glaucoma damages the optic nerve.
- Macular degeneration damages the macula, the part of the eye that lets you see fine detail.
- Diabetic retinopathy damages the blood vessels in the retina, the part of the eye that receives visual images and sends these images to the brain.

Graphic 76735 Version 6.0

