Diabetic retinopathy

Definition

Diabetic retinopathy is damage to the eye's retina that occurs with long-term diabetes.

Causes

Diabetic retinopathy can result from high blood sugar levels that cause damage to the tiny blood vessels in the retina. Increased blood pressure can also cause damage to the tiny blood vessels in the retina and contribute to diabetic retinopathy.

Possible Complications

Diabetic retinopathy can lead to vision loss, including:

- Vision changes
- Blurred vision
- Hazy vision
- Distorted vision
- Scattered vision
- Distorted alignment of objects
- Blurred vision

When to Contact a Medical Professional

Contact your health care provider if:

- You develop diabetic retinopathy
- You have vision problems
- You need treatment for diabetic retinopathy

Prevention

Diabetic retinopathy can be prevented by:

- Controlling your diabetes
- Eating a healthy diet
- Exercising regularly
- Avoiding smoking
- Monitoring your blood sugar levels
- Taking medications as prescribed

References

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Diabetic retinopathy is caused by damage to blood vessels of the retina, the light-sensitive inner layer of the eye. There are two types: non-proliferative or proliferative.

- Non-proliferative diabetic retinopathy is the early stage of the disease and is less severe. Blood vessels in the eye start to leak fluid into the retina, which leads to blurred vision.
- Proliferative retinopathy is the more advanced form of the disease, and more severe. New blood vessels start to grow in the eye. These new vessels are fragile and can bleed (hemorrhage), which may cause vision loss and scarring of the retina.

Diabetic retinopathy is the leading cause of blindness in working-age Americans. People with both type 1 diabetes and type 2 diabetes are at risk for this condition.

Having more severe diabetes for a longer period of time increases the chance of getting retinopathy. Retinopathy is also more likely to occur earlier and be more severe if your diabetes is poorly controlled. Almost everyone who has had diabetes for more than 30 years will show signs of diabetic retinopathy.

**Symptoms**

Symptoms of diabetic retinopathy include:

- Blindness
- Blurred vision
- Floaters
- Shadows or missing areas of vision

Many people with early diabetic retinopathy have no symptoms before major bleeding occurs in the eye. This is why everyone with diabetes should have regular eye exams.

**Exams and Tests**

In nearly all cases, the health care provider can diagnose diabetic retinopathy by dilating the pupils with eye drops and then carefully examining the retina. A retinal photography or fluorescein angiography test may also be used.

**Treatment**

Treatment usually does not reverse damage that has already occurred, but it will keep the disease from getting worse. Drugs are being developed that keep abnormal blood vessels from growing in patients with proliferative diabetic retinopathy.

Laser surgery or photocoagulation may be used to keep vessels from leaking or to get rid of abnormal fragile vessels.

A surgical procedure called vitrectomy is used when there is bleeding (hemorrhage) into the eye. It may also be used to repair retinal detachment.

**Support Groups**
You can improve your outcome by keeping good control of your blood sugar and blood pressure.

Diabetic retinopathy can lead to blindness without treatment.

- Blindness
- Glaucoma
- Retinal detachment

Call for an appointment with an eye doctor (ophthalmologist) if you have diabetes and you have not seen an ophthalmologist in the past year.

Tight control of blood sugar, blood pressure, and cholesterol is very important for preventing diabetic retinopathy.

- Children older than 10 years who have had diabetes for 3 - 5 years or more
- Adults with type 2 diabetes soon after diagnosis
- Adolescents and adults with type 1 diabetes within 5 years of diagnosis

After the first exam, most patients should have a yearly eye exam.


