



DIABETES AND EYE DISEASE

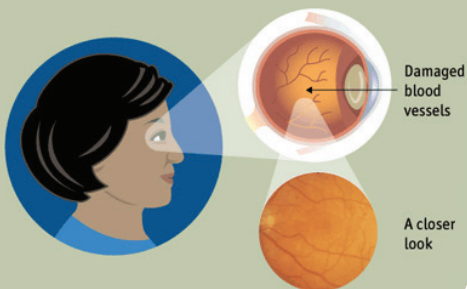
Diabetes is increasing worldwide. As diabetes becomes more prevalent so do associated complications - such as diabetic retinopathy. Of 415 million people worldwide living with diabetes in 2015 95% are expected to have some sort of eye damage from diabetes. One out of three living with diabetes will develop diabetic retinopathy.

Managing diabetes goes a long way to managing diabetic retinopathy. People whose diabetes is not well controlled are more likely to develop complications of the disease, including retinopathy.

Diabetes can harm the eyes. It can damage the blood vessels of the retina, the back part of your eye, which changes light and images that enter the eye into nerve signals, sending them to the brain. This condition is called diabetic retinopathy. Diabetes also increases the chance of having Macular edema- blurry vision due to fluid leaking into the area of the retina that provides sharp central vision; Retinal detachment - scarring that may cause

part of the retina to pull away from the back of your eyeball; cataracts – opacification of the eye lens; glaucoma - increased pressure in the eye that can lead to blindness, and other eye problems. High blood sugar or rapid changes in blood sugar level often cause blurred vision. This is because the lens in the middle of the eye cannot change shape when it has too much sugar and water in the lens. Diabetic retinopathy is a main cause of

decreased vision or blindness in persons 20 to 74 years old. People with type 1 or type 2 diabetes are at risk of this condition.



Risk groups

The chance of developing retinopathy and having a more severe form is higher when:

- You have had diabetes for a long time;
- Your blood sugar (glucose) has been poorly controlled;
- You also smoke or you have high blood pressure.



Symptoms

Most often, diabetic retinopathy has no symptoms until the damage to your eyes is severe. This is because damage to too much of the retina can occur before your vision is affected.

Symptoms of diabetic retinopathy include:

- Blurred vision and slow vision loss over time;
- Black spots in front of the eye;
- Shadows or missing areas of vision;
- Trouble seeing at night.



Normal



Diabetic Retinopathy

Detection

The only way to diagnose diabetic retinopathy is by having a complete eye exam, including also checking the back of the eye – retina. Many people with early diabetic retinopathy have no symptoms before bleeding occurs in the eye. **This is why everyone with diabetes should have regular eye exams.** Have eye exams as often as recommended, usually once every 1 to 2 years.

Contact an Eye Doctor

If you have diabetes and you have not seen an ophthalmologist in the past year. If any of the following symptoms are new or are becoming worse:

- You cannot see well in dim light;
- You have double vision (you see 2 things when there is only one);
- Your vision is hazy or blurry and you cannot focus;
- You have pain in one of your eyes;
- You are having headaches;
- You see spots floating in your eyes;
- You cannot see things on the side of your field of vision;
- You see shadows.

Diabetic retinopathy treatment

People with early diabetic retinopathy may not need treatment. But they should be closely followed by an eye doctor who is trained to treat diabetic eye diseases.

Once your eye doctor notices new blood vessels growing in your retina (neovascularization) or you develop macular edema, treatment is usually needed.

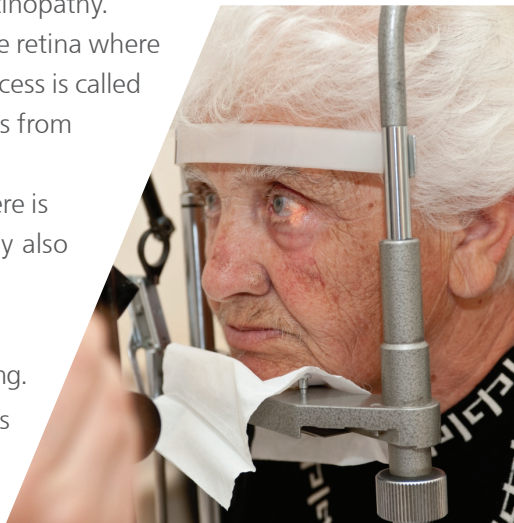
Eye surgery is the main treatment for diabetic retinopathy.

- Laser eye surgery creates small burns in the retina where there are abnormal blood vessels. This process is called photocoagulation. It is used to keep vessels from leaking, or to shrink abnormal vessels.
- Surgery called vitrectomy is used when there is bleeding (hemorrhage) into the eye. It may also be used to repair retinal detachment.

Medicines that are injected into the eyeball may help prevent abnormal blood vessels from growing.

If you have diabetes and your blood sugar has been very high, your doctor will give you new medicines to lower your blood sugar level. If you have diabetic retinopathy, your vision can

get worse for a short time when you begin taking medicine that improves your blood sugar level. **Treatment can reduce vision loss.** They do not cure diabetic retinopathy or reverse the changes that have already occurred. Diabetic eye disease can lead to reduced vision and blindness.



Management



Managing your diabetes may help slow diabetic retinopathy and other eye problems.

Control your blood sugar (glucose) level by:

- Eating healthy foods;
- Getting regular exercise;
- Checking your blood sugar as often as instructed by your diabetes health care provider and keeping a record of your numbers so you know the types of foods and activities that affect your blood sugar level;
- Taking medicine or insulin as instructed.

Prevention

Good control of blood sugar, blood pressure, and cholesterol are very important for preventing diabetic retinopathy. Do not smoke.

Achieving and maintaining health-protective changes in behavior can be difficult. Increased physical activity, healthful dietary habits and improved understanding of the relationship between food and blood glucose levels can enhance metabolic control.

Everyone with diabetes is at risk of diabetic retinopathy.



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bringing sight to armenian eyes