

Welcome to Fundus Photography

Diabetes affects your body in many different ways. For example, it can cause changes in the body's blood vessels, including the vessels of the retina. At present, diabetes complications in the eye cannot be cured, but the progression can usually be slowed down if changes are detected in time.

The progression sneaks up on you and the changes do not cause any noticeable symptoms initially. In other words, your vision remains normal and you do not notice the changes.

By examining your fundus, we can detect changes in time – before they cause symptoms. This is crucial since the ability to preserve your eyesight is greatest if you begin treatment before your vision is affected.

The procedure

During the examination, you will meet with an ophthalmic nurse, who will put drops in your eyes to dilate the pupils. Once your pupils are sufficiently dilated (after about 30 minutes), the ophthalmic nurse will take pictures of your retina using a fundus camera.

Your pupils will remain dilated for a few hours, and in some cases until the next day. Until your pupils have returned to their natural size, your vision will be affected and you should avoid driving a car.

You may also feel blinded by bright light. A pair of sunglasses may help to alleviate this problem.



Fundus photography is the best method for early detection of diabetes-related changes in the retina.

The results

The images are reviewed by the ophthalmic nurse and you will receive your results immediately if everything looks normal.

If the images require further assessment, they will be reviewed by an ophthalmologist and the results will be sent to your diabetes doctor. Prior to each fundus photography session, your diabetes doctor must submit a new referral with your background data and current levels.

If the changes in your fundus require further assessment, you will be given an



appointment to meet with an ophthalmologist for more extensive examination and a decision on any course of treatment.

What is diabetic retinopathy?

Diabetic retinopathy is the collective term for the damaging changes to the retina caused by complications of diabetes.

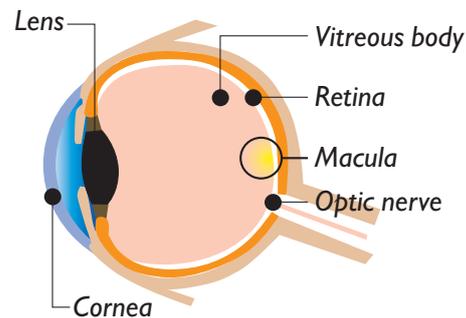
One-third of all diabetes sufferers have some form of retinopathy. Of this group, 10-35 percent develop visual impairment as a result of it.

What happens to the eye?

The retina lines the inside of the eyeball. The macula is the central portion of the retina. It is the macula which is responsible for visual acuity and the ability to see small details. The retina contains a large number of small blood vessels called capillaries. Elevated blood sugar levels cause the capillary vessel walls to weaken over time and sometimes even leak fluid.

The leakage causes swelling of the retina. If the swelling affects the macula, vision deteriorates.

The small blood vessels can also become clogged. This leads to impaired blood flow and oxygen deficiency in the retina. The retina tries to compensate for the lack of oxygen by secreting various substances, referred to as growth factors, to stimulate the formation of new blood vessels. The newly formed blood vessels are weak and burst easily.



Bleeding then occurs in the eye, leading to rapid loss of vision. The bleeding must always be taken care of by an ophthalmologist. Without treatment, there is a risk of scarring, retinal detachment and severe vision loss that is permanent.

Risk factors

There are a number of factors that affect the speed and intensity of the changes. The main risk factors are:

- How long the person has had diabetes
- Unsatisfactory blood sugar levels
- High blood pressure
- Abnormal blood lipid levels
- Hormonal changes

Continued follow-up

No treatment is usually required for mild or moderate changes in the fundus. Improved sugar levels, blood pressure and blood lipid levels can stop progression, and to some extent even reverse it. The changes must be monitored through regular fundus photography or medical examinations.

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