

Patient Information

**DO NOT
LOSE
SIGHT
OF
DIABETIC
EYE
DISEASE!**

Tips:

Remember that even in advanced cases, the disease may progress a long way without symptoms; hence, regular dilated eye examinations for people with diabetes are so important.

Detection and Diagnosis

Diabetic patients require routine eye examinations so related eye problems can be detected and treated as early as possible.

Treatment

The annual cost of treating a diabetic at risk is much lower than the welfare benefits paid to a blind person per annum, particularly in some Western countries.

But by taking good care through diet, exercise and special medications, you can control diabetes.

And there is more good news; diabetes related visual loss due to diabetic retinopathy could be treated with laser photocoagulation before visual loss occurs.

Prevention

Diabetics can greatly reduce the possibilities of eye complications by scheduling routine examinations with an ophthalmologist. Many problems can be treated with much greater success when caught early.



Vision of a normal eye



Vision of a person with Diabetic Retinopathy



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“DO NOT LOSE SIGHT OF DIABETIC EYE DISEASE!”

What is diabetic eye disease?

The eye functions very much like a camera. In a normal eye, light enters through the front part of the eye, the cornea and gets focused by the lens onto the retina, the light sensitive screen at the back of the eye. The retina changes the light into nerve signals and sends these signals along the optic nerve to the brain. Without a retina, the eye cannot communicate with the brain, making vision impossible.

Diabetic eye disease refers to a group of eye problems that people with diabetes may develop as a complication of this disease. All can cause severe vision loss or even blindness. Diabetic eye disease includes: Cataract-clouding of the eye's lens, Glaucoma-increase in fluid pressure inside the eye that leads to optic nerve damage and loss of vision, and Diabetic retinopathy — damage to the blood vessels in the retina. In addition, diabetes can affect the optic nerve and cause anterior ischemic optic neuropathy (AION) and palsies of the nerves that supply to the external muscles of the eye.

What is diabetic retinopathy?

The retina is a thin membrane, which covers the back of the eye. This membrane receives light from outside and converts it to signals the brain can understand. The retina gets its food supply from various blood vessels that are present in the retina. Normally, the retinal blood vessels do not leak. But in patients with diabetes, the retinal blood vessels develop tiny leaks,

which cause fluid or blood to seep into the retina; the retina becomes wet and swollen and cannot work properly. This is known as diabetic retinopathy.

How does it damage the retina?

The earliest phase of the disease is known as **background diabetic retinopathy**. In this phase, the vessels in the retina become weakened and leak, forming small, dot-like hemorrhages. These leaking vessels often lead to swelling or edema in the retina and decreased vision.

The next stage is known as **proliferative diabetic retinopathy**. In this stage, circulation problems cause areas of the retina to become oxygen-deprived or ischemic. New, fragile, vessels develop as the circulatory system attempts to maintain adequate oxygen levels within the retina. This is called neovascularization. Unfortunately, these delicate vessels hemorrhage easily. Blood may leak into the retina causing spots along with decreased vision.

These abnormal vessels may also produce large scars in the retina that may cause the underlying retina to detach producing a retinal detachment.

Signs and Symptoms

The affect of diabetic retinopathy on vision varies widely, depending on the stage of the disease. Some common symptoms of diabetic retinopathy are listed below, however, diabetes may cause other eye symptoms.

- Blurred vision (this is often linked to blood sugar levels)
- Floaters and flashes
- Sudden loss of vision

Who is at risk for diabetic retinopathy?

All people with diabetes are at risk; during pregnancy, diabetic retinopathy may worsen. The longer a person has diabetes, the greater the risk of developing diabetic retinopathy. Nearly half of all people with diabetes will develop some degree of diabetic retinopathy during their lifetime.

Why are we concerned about Diabetic Retinopathy?

More than half of the people suffering from diabetes are at a risk of vision loss because they do not know they have the disease.

- Diabetic retinopathy is an important cause of blindness in the working age group.
- A diabetic is 25 times more likely to go blind than a person in the general population.
- Of the diabetic patients, nearly 20 per cent develop diabetic retinopathy.
- Among the population of diabetics, only a miniscule percentage is referred for regular eye check-ups.
- Trained Ophthalmologists are required to detect and treat diabetes related retinal disease: diabetic retinopathy.
- Diabetic retinopathy often has no early warning signals. Vision may not change until the disease becomes severe, nor is there any pain.