

Diabetic Retinopathy

As diabetic retinopathy can have no symptoms initially, it is important to have your eyes checked annually if you are diabetic. Good vision can be maintained if retinopathy is detected and treated early before permanent damage has occurred.

blood supply to the retina cells, bleeding inside the eye or scarring and detachment of the retina.

- 80% of people with long-standing diabetes will develop diabetic retinopathy. If you have diabetes, have your eyes checked yearly.

*Based on a 2001 study by Singapore Eye Research Institute.



Normal vision.



Vision impaired by diabetic retinopathy.

What is diabetic retinopathy?

The retina is the layer that lines the inside of the back of the eye. The function of the retina is very much like the film in a camera. It contains millions of light-sensing cells that detect the images we see.

Diabetes can cause damage to the retina, causing loss of vision due to swelling of the retina, insufficient

Causes

Diabetes damages the small blood vessels in the retina over time. The small blood vessels can leak, causing swelling of the retina.

They can also become blocked, causing the retina to react by trying to grow new blood vessels. These abnormal and fragile new vessels bleed

into the cavity of the eye. Scars can form from these new vessels which then pull on the retina and cause it to detach. All these can lead to severe and permanent vision loss.

Symptoms

Patients usually have no symptoms, i.e. vision is perfectly normal, in the early stages of diabetic retinopathy. Once vision is affected, the diabetic retinopathy is usually severe.

Symptoms of diabetic retinopathy include:

- Blurred vision
- Dark clouds in your field of vision due to bleeding inside the eye

Risk Factors

The risk of diabetic retinopathy increases with the duration of diabetes.

Important risk factors that worsen diabetic retinopathy include :

- Poor blood sugar level control
- High blood pressure
- High cholesterol
- Pregnancy
- Smoking
- Kidney failure



Prevention

If you have diabetes you should control your blood sugar level, blood pressure and cholesterol to reduce the risk of diabetic retinopathy.

Unfortunately, good glucose control does not wholly eliminate the risk of diabetic retinopathy. Coupled with the fact that diabetic retinopathy has no symptoms in the beginning, **it is very important for all diabetics to have their eyes checked every year.** This can be done by your doctor or by having a photograph of the retina taken.

Diagnosis

The doctor can make the diagnosis of diabetic retinopathy by examining the eyes with special instruments and

lenses. Taking photographs of the retina is a helpful way of detecting and assessing diabetic retinopathy.

Treatment

Laser treatment is required if the retinopathy becomes severe. Laser burns are used to treat swollen areas of the retina. They are also applied to areas of the retina damaged by poor blood supply to stop abnormal new blood vessels from growing. Laser treatments are usually carried out in an outpatient setting. Multiple sessions of treatment are usually necessary.

Other surgical procedures such as vitrectomy may be required in advanced cases where there is bleeding into the eye, scar tissue formation and retinal detachment. Surgery is the last resort to save the eye. Injections of medication into the eye to control swelling or new vessel growth are given in selected cases.

Regular eye exams are required after treatment as retinopathy is a long-term condition. The aim of treatment is to stabilise the retinopathy and prevent the worsening of vision over a period of time. Unfortunately, the damage that has already occurred can be permanent.