

DIABETES AND THE EYE

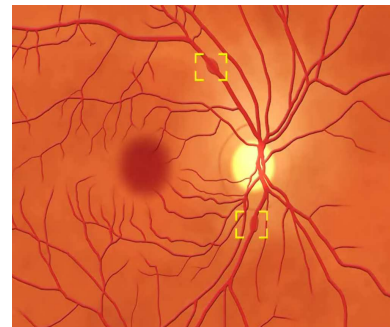
Q What is diabetes?

A Diabetes is a condition where the body fails to produce enough insulin and therefore cannot cope normally with sugar and other carbohydrates in the diet. There are two types of diabetes. Type 1 (insulin dependent diabetes) occurs when the body fails to produce any insulin. Onset is usually before the age of 30 and those affected require regular insulin injections. In Type 2 (non-insulin dependent diabetes) the body fails to produce an adequate supply of insulin. This type of diabetes usually occurs later in life and can usually be controlled by diet or tablets.

Q What effect does diabetes have on the eyes?

A Diabetes can have a number of effects on the eye. Blurry vision can be one of the early signs of diabetes and if you have diabetes you are rather more likely to develop cataracts (where the lens in the eye goes cloudy) and glaucoma (where the nerve fibres at the back of the eye become damaged).

However, the main effect of diabetes is on the retina, the light sensitive layer at the back of the eye, where longstanding diabetes tends to weaken the walls of the blood vessels which then begin to leak. This is known

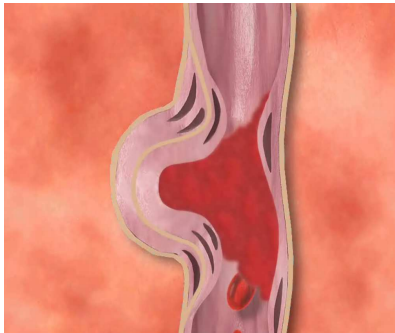


as 'diabetic retinopathy'.

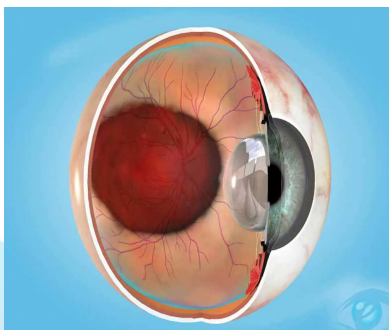
In the early stages, the walls of the blood vessels tend to bulge slightly (microaneurysms) and may leak blood (haemorrhages) or fluid (exudates). At this stage vision is not affected.

If the background diabetic retinopathy becomes more severe, the central area of the retina (the macular) may become involved. As this area is important for seeing fine detail, you may find it more difficult to read small print or recognise people's faces.

If the condition is left untreated, some of the blood vessels may become blocked.



In a bid to repair itself, the retina develops new blood vessels. Unfortunately, these new blood vessels are weak and grow in the wrong place. As a result, they bleed very easily and cause scar tissue to form in the eye. The scar tissue tends to contract over time and this can pull on the retina and cause a retinal detachment. At this stage the condition is known as 'proliferative retinopathy' and there is a serious risk of vision loss.



Q What can be done to help?

A If you have diabetes this does not necessarily mean that your sight will be affected, but there is a higher risk. The risk is reduced if your diabetes is well controlled, you have a healthy diet, your blood pressure and cholesterol levels are normal and if you avoid smoking. Many of the changes in the eye can be prevented by early intervention but this will only happen if you have regular eye examinations.

In the early stages, no treatment is required but you should have regular eye examinations by your optometrist, GP or ophthalmologist to detect any developments of the condition early.

If the leakage of the blood vessels starts to threaten your vision, laser treatment can be used to seal the leaking blood vessels. If there are any signs of blood vessels becoming blocked and new blood vessels forming, laser treatment to create numerous small burns in the periphery of the retina may be appropriate. The aim of this treatment is to reduce the demand for blood in the peripheral retina so that the all-important central retina is preserved. After this

treatment there may be some loss of peripheral vision and night vision but it greatly improves the chances of maintaining the ability to read and see fine detail.

Q The need for regular eye examinations

A In most cases, sight loss caused by diabetic retinopathy can be prevented if it is diagnosed early. Because your vision is not usually affected by diabetic retinopathy until the condition is at an advanced stage, regular eye checks are very important. Although your vision may be good, changes can be taking place within your retina that can be easily treated. Therefore, early diagnosis is vital.

The National Screening Programme for Diabetic Retinopathy offers regular (yearly) eye tests designed to detect diabetic retinopathy in everyone with diabetes over the age of 11.

