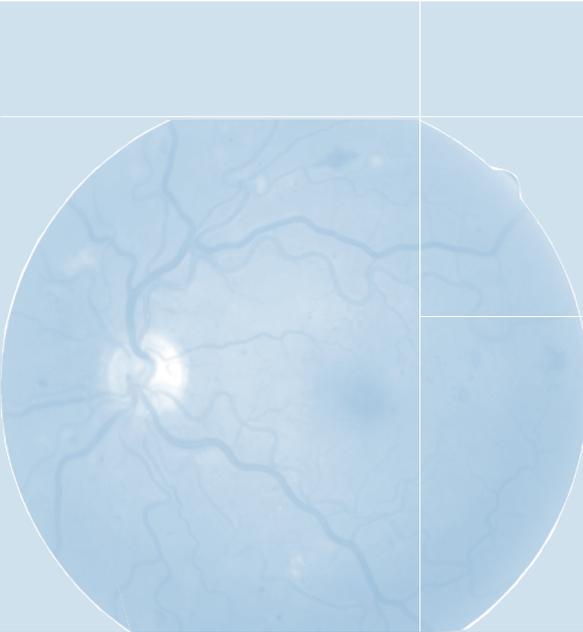
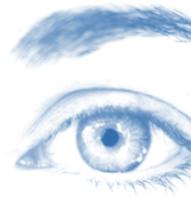


Diabetic retinopathy - the facts



This leaflet sets out to answer some of your questions about the changes that may occur, or have occurred, in your eyes if you have diabetes. You might want to discuss this information with a relative or carer and with a health professional.





Summary

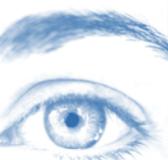
Diabetic retinopathy affects your sight by damaging the small blood vessels at the back of the eye.

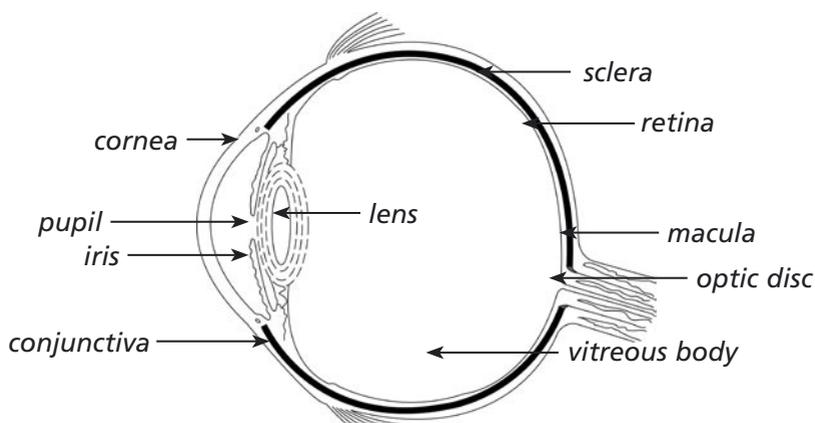
- Diabetic retinopathy progresses with time but may not cause symptoms until it is quite far gone.
- Laser treatment for sight-threatening diabetic retinopathy can reduce the risk of you losing your sight.
- Looking after your diabetes can reduce the risk of you developing diabetic retinopathy and slow the rate at which it happens.

What is diabetic retinopathy?

When diabetes affects the small blood vessels in the part of your eye called the retina, this is known as diabetic retinopathy.

The retina lines the inside of the eye and acts rather like the film in a camera (see diagram 1). The macula is the small central part of the retina that you use to see things clearly and is the part you are using now to read this leaflet. You use the rest of your retina to see things around you and to see in the dark.





Blood vessels bring oxygen and nourishment to your retina. These blood vessels may be damaged in a number of ways if you have diabetes. Severe changes to the retinal blood vessels will affect the health of your retina and this can damage your sight.

Why is diabetic retinopathy important?

- Diabetic retinopathy can affect your sight and is still a significant cause of blindness in the working population.
- Laser treatment for sight-threatening retinopathy reduces the risk of you losing your sight but needs to be given at the appropriate stage and ideally before your vision has been affected.





Who gets diabetic retinopathy?

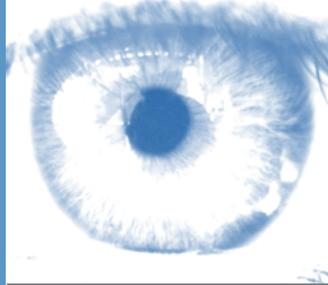
All people with diabetes are at some risk of getting diabetic retinopathy. This is true whether your diabetes is controlled by diet, tablets or insulin. You are at greater risk if:

- you have had diabetes for a long time;
- your diabetes is poorly controlled;
- you have high blood pressure; or
- you are on insulin treatment.

What does diabetic retinopathy look like?

The earliest changes are called **background retinopathy**. Small changes develop on the blood vessels and look like tiny red dots. These are called microaneurysms. Larger red dots are called retinal haemorrhages. They lie within the retina and are very like a bruise on your skin. Background retinopathy does not affect your sight and does not need treatment. However, you should make sure that you go for screening every year.

As time goes by, your blood vessels may become constricted and the retina may become starved of oxygen and nutrition.



Different signs can be seen in the retina at different stages during this progression. These are called **pre-proliferative retinopathy**. You will be referred to the hospital for more examinations if we find signs of pre-proliferative retinopathy.

Eventually you may develop new blood vessels on the retina. This is called **proliferative diabetic retinopathy**. At this stage your sight is at risk as the vessels may bleed or may develop scar tissue. This can pull the retina away from the underlying layers of the eye, causing a **traction retinal detachment**. If the new vessels bleed, you may see a sudden shower of floaters or cobwebs in your sight, or your sight may be completely blurred. This is called a **vitreous haemorrhage** and you should contact your GP or an eye department immediately for advice. If you develop proliferative retinopathy or if the eye specialist you are seeing thinks you are very close to developing proliferative retinopathy, you will be advised to have laser treatment.

You may also suffer from two different types of change to the blood vessels in the macula. This is called **diabetic maculopathy**.

The commonest change is that the blood vessels become leaky. Fats and fluid that are normally carried along in the bloodstream may then leak into the macula. Fats that have leaked into the retina are called **exudates**. Fluid leaking causes waterlogging in the retina and is called **oedema**. Oedema at the





centre of the macula will cause you to lose some sight and you may need gentle laser treatment.

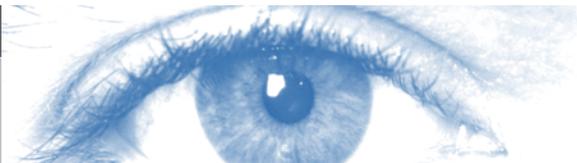
Occasionally, the blood vessels in the macula become so constricted that the macula is starved of oxygen and nutrition causing your sight to get worse. This is called **ischaemic maculopathy** and it does not usually respond to any type of treatment.

How will I know if I have diabetic retinopathy?

Diabetic retinopathy does not usually cause a loss of sight until it has reached an advanced stage. Even sight-threatening retinopathy that is close to affecting your sight may not cause symptoms.

Diabetic retinopathy is detected by examining the back of your eyes to look at your retina. The healthcare professional who looks after your diabetes should have made arrangements for you to go for screening for diabetic retinopathy at least every year. This will be done by taking photographs of the back of your eye. You may also want to read 'Eye screening for people with diabetes - the facts'.

Doctors or optometrists (opticians) can also check your retina using other special equipment.





You must get professional advice if you have any new problem with your sight such as:

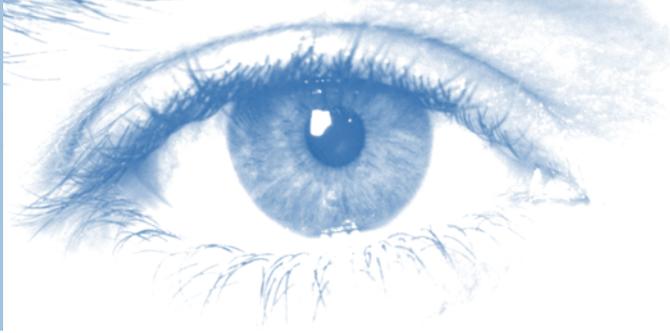
- if your sight suddenly gets worse, distorted or you lose all or part of your vision; or
- you get a sudden increase in floaters in your vision.

Do's and don'ts

Diabetic retinopathy can get worse over time, but the following measures can help you to reduce your risks of developing diabetic retinopathy and to slow the progress of sight-threatening retinopathy.

- Control your blood glucose as effectively as possible.
- See your doctor regularly to check that your blood pressure is not raised.
- Keep your regular screening appointment.
- Get advice if you have a problem with your sight.

For your eyes and general health, you should also have your cholesterol levels checked regularly and not smoke.



More information and support

If you have any questions about diabetic retinopathy:

- ask your doctor or nurse;
- contact your local screening office;
- visit www.nscretinopathy.org.uk;
- visit www.diabetes.org.uk;
- visit www.nhsdirect.nhs.uk; or
- visit www.rnib.org.uk.

Other leaflets available in this series

- Eye screening for people with diabetes - the facts
- Preparing for laser treatment for diabetic retinopathy and maculopathy

