



## Preparing for retinal laser treatment

Laser treatment is offered for several different eye conditions including diabetic retinopathy/maculopathy, retinal vein occlusion, retinal holes/tears, retinal vessel macroaneurysms, ocular ischemic syndrome and retinal vessel inflammation.

This leaflet sets out to answer some of the commonly asked questions about laser treatment. You might want to discuss this information with a relative or carer. As you may be asked to sign a consent form before you have laser treatment, it is important that you ensure you understand what the procedure will entail and the reasons for having laser treatment.

### Summary

- The benefits of laser treatment greatly outweigh the risks.
- The aim of laser treatment is to stabilise the changes caused in your eyes by your condition.
- The treatment does not generally improve your sight, although in some cases it might.
- It is likely that without this treatment, your eye condition or vision might deteriorate.

### Why am I being offered laser treatment?

An examination of your eyes has shown that your eye condition has affected your retina and that you are at risk of long-term problems with your sight.

### What is the aim of laser treatment?

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- The treatment does not generally improve your sight although in some cases it might.

### What does laser treatment for diabetic eye disease involve?

- A course of laser treatment may involve one or more visits to the laser clinic before the changes are controlled.
- You will usually receive the treatment at an outpatient clinic.
- Your sight will be checked and eye drops will be used to dilate both your pupils, although you may only have treatment to one eye at each visit. For this reason, you should not drive – please arrange to have someone take you to and from your laser appointment/s.
- After the doctor has examined your eyes and you have agreed on the treatment and signed the form giving your permission (consent form), you will be taken through to the laser room. Or you might have signed the consent form already on your last clinic visit.
- Drops will be put into your eyes to numb the surface and then a special contact lens will be placed on the eye to hold your lids open and to focus the laser beam onto your retina. The lens will be removed after you have had the treatment.

- The laser treatment involves focussing an intense beam of light onto your retina in small spots. The number of spots will vary according to the type of change you have and how severe the changes are.
- Your eye will get used to the brightness during the treatment but at the end your sight will be temporarily dazzled and darkened for a few minutes. You should bring dark glasses to wear to go home after the treatment.

### **What should I expect after the laser treatment?**

- Your sight will normally return to its previous level over the next few hours and you will be able to continue your work or normal activities the next day.
- In rare instances, it can take longer for your sight to return to normal.
- If you have had a lot of treatment, your eyes may ache. You should find that mild painkillers, such as paracetamol and aspirin ease the pain.

### **Will I feel any discomfort?**

- Usually the treatment is not painful.
- Sometimes the treatment will cause a sharp prickling feeling when certain areas of the retina are treated. This will happen where nerves run under the retina.
- If you have had a number of laser sessions in the past, you may feel some discomfort during the treatment.
- If you have felt discomfort in the past, ask the doctor to give you painkillers or a mild sedative before the treatment starts, or take some an hour before your appointment.

You should get medical advice if you have any new eye problems after your laser treatment.

### **Laser Treatment**

- Over half of people treated notice some loss of peripheral vision (the outer field of vision) in one or both eyes, and three in 100 (3%) people stop driving because their peripheral vision has been reduced (tunnel vision).
- If you need an intensive course of laser treatment to control the changes in your eyes, you may notice a temporary worsening of your sight due to the macula (the small, highly sensitive central area of the retina) becoming waterlogged. This should ease by itself, but further treatment may be needed in a small number of cases.
- Occasionally, some people have a bleed into the jelly that fills the eye (the vitreous). If you notice a shower of floaters (specks that float across your vision) or your sight gets worse, you should get medical advice.

### **What is the treatment for maculopathy?**

- If you have macular changes, we will apply gentle laser burns close to the central part of the retina – the part that you use for seeing clearly.
- You need much less laser treatment than for proliferative retinopathy.

## **What are the risks of laser treatment for maculopathy?**

- Complications are very rare for maculopathy treatment.
- Some people can still “see” the laser grid pattern after treatment. Usually, this continues for up to two months and, very occasionally, for up to six months after treatment.
- In a national survey, around one in 10 people reported seeing a small but permanent blind spot close to the centre of their sight.
- The chance of you completely losing your central vision after laser treatment for maculopathy is around one in 300 (0.3%).
- We cannot completely avoid accidental laser burns to the very centre of your vision. You may find it difficult to keep still or may accidentally look at the laser if it fires. If we feel that the risk of this happening is too high we will stop your treatment.
- Occasionally a laser burn to your retina may result in new blood vessels growing that may bleed and cause scarring to the central vision, resulting in permanent loss of your central vision.

## **How successful is laser treatment?**

- If laser treatment is given when the changes are at the correct stage it is very effective.
- In most cases we will be able to save your reading and driving vision.

## **Is there any other treatment available for retinopathy?**

- Anti-VEGF (Anti vascular endothelial growth factor) injections for the eye are available if the water logging is at the centre of the vision (macula) and is above a particular level.
- Anti-inflammatory steroid implants are also used for maculopathy if the water logging is at the centre in suitable patients.
- Research into new treatments is underway in many centres.

## **What will happen if I don't have laser treatment?**

- The benefits of laser treatment greatly outweigh the risks.
- It is likely that without this treatment you may lose part or all of your sight.

## **Why might laser treatment not work for me?**

In some cases the damage to the retina may already be too severe for laser treatment to work.

It still might stabilise your condition in the longer term and prevent further complications.

In some cases, we will suggest that you have a special intravenous dye test to allow us to assess the circulation in your eyes. This test is known as ‘fundus fluorescein angiography’.

If your eye disease is very aggressive, the changes may be moving on too fast for the laser to control them. It is very important that if you have any risk factors causing your retinal condition like high blood pressure, high cholesterol or diabetes, please make sure they are optimally controlled as this can help to slow the process.

You should be seeing your general practitioner or physician regularly to monitor this.

If laser treatment does not work for you, it may be possible for you to have an operation on the eye or regular injections into the eye. We will refer you to a vitreoretinal surgeon to discuss these options if we feel that they may help you.

**If you have any questions after reading this leaflet, we suggest that you write them down and discuss them with your eye specialist before you agree to treatment.**

### **More information and support**

If you have any questions about laser treatment for diabetic retinopathy and maculopathy:

- Ask your doctor or nurse
- Visit [www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)
- Visit [www.rnib.org.uk](http://www.rnib.org.uk)

### **Hospital contact numbers:**

#### **Appointments**

Heartlands Hospital – 0121 424 0545  
Solihull Hospital – 0121 424 4463  
Good Hope Hospital – 0121 424 9651

#### **Nurses answer phone**

Heartlands Hospital – 0121 424 1536  
Solihull Hospital – 0121 424 4456  
Good Hope Hospital – 0121 424 9533

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