

Laser Treatment for Diabetic Retinopathy and Maculopathy

Patient Information

Ophthalmology Services



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Laser treatment

Diabetic retinopathy is usually treated with laser.

There are two types of laser techniques according to the type of retinopathy:

- Maculopathy requires gentle treatment. Serious sight loss is prevented in 60% to 70% of cases.
- Proliferative retinopathy requires extensive laser treatment. Early treatment will prevent severe sight loss in over 90% of cases. In most cases the treatment will be able to save your reading vision.
- Regarding driving, extensive laser treatment could in some cases affect a patient's ability to drive, due to reduced field of vision. It is advisable to inform the DVLA of this.

Benefits of laser treatment

The aim of laser treatment is to maintain vision, not improve it.

Alternatives

Laser treatment is the only proven treatment to stop the progression of the disease. In some cases of maculopathy when the laser is not effective, then there is an alternative treatment in the form of injections of special drugs in your eye.

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

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

Maculopathy treatment

We will apply gentle laser burns close to the central part of the retina – (the part that you use for seeing clearly) so as to seal the leaking blood vessels.

Risks of laser treatment for maculopathy

Complications are very rare for maculopathy treatment:

- Some people may 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.
- 1 in 10 people might see 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 is around 1 in 300 (0.3%).
- Accidental laser burns cannot be completely avoided. You may find it difficult to keep still or may accidentally look at the laser as 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. This could result in permanent loss of your central vision.

Treatment for proliferative retinopathy

We will apply a large number of laser burns to the outer part of your retina, the part of the retina that allows you to see to the side and in the dark. It will require multiple sessions. The treatment is called **pan retinal** photocoagulation.

Risks of laser treatment for proliferation retinopathy

At the end of a course of treatment for proliferative retinopathy, the following may apply:

- Over half of people treated notice some difficulty with their night vision.
- 1 in 5 people notice some loss of peripheral vision (outer field of vision) in one or both eyes and 3 in 100 people must 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 sort itself out but needs treatment in a small number of cases.
- Occasionally, some people have a bleed into the jelly that fills the eye and floaters may appear.

Out-Patient Clinic

Your laser treatment will be carried out as a day surgery procedure, this means you can go home on the same day as the procedure.

How long does it take?

Your laser treatment could last between 15 minutes and 40 minutes depending on how intensive your treatment is. Overall, your visit can last up to two hours.

Consent

The procedure will be explained to you, and you will be asked to sign a consent form. Make sure you fully understand all the information given to you about the possible and proposed treatments and any potential risks. Please ask any questions if you are not clear about anything.

The procedure

Before the laser is applied, a local anaesthetic is put into the eye to numb it, and drops are instilled to dilate the pupil. A contact lens is placed **on** the eye which helps to keep the lids open, focuses the laser beam and allows the doctor to view the back of the eye in greater detail. It is important that you keep your eyes still during the procedure.

Will the laser hurt?

Usually, the treatment is not painful. Sometimes a dull thud sensation or a sharp pricking feeling can be felt. This happens in the area of retina where nerves run under the retina and the doctor cannot see the nerves.

If you have had several laser sessions in the past and have felt discomfort, it is a good idea to take painkillers like paracetamol an hour before the treatment starts.

After the treatment

Your vision may be blurry for a few hours, but your sight will return to its previous level over the next few hours. The operated eye can be sensitive to light so you may wish to bring dark glasses to wear to go home after the treatment. You may be aware of floaters in your vision, these should settle over a few weeks. **You will not be able to drive yourself home so you will need to arrange transport home after the procedure.**

You need to inform DVLA that you have had the laser treatment by Law.

If you experience flashing lights or loss of vision, please contact the eye unit between 9am and 5pm, Monday to Friday by telephoning 01942 822244; or contact your GP or Accident and Emergency Department outside of these hours.

You will be able to go home after your procedure, no post laser drops are required, but if you are using any drops regularly, then you should carry on as usual.

At home, if you experience some discomfort, take painkillers like paracetamol. Do not take more than 8 in 24 hours.

You will be able to resume normal activities the next day, including driving.

Contact lenses

If you wear contact lenses, you can start wearing your lenses from the day after your procedure.

Follow up appointment

A follow up appointment will be arranged for you to attend in about two to three months.

Contact information

If you have any questions that haven't been covered in this leaflet, do not hesitate to contact us by telephoning the Eye Unit 01942 822244.

Please use this space to write notes or reminders.

Comments, Compliments or Complaints

The Patient Relations/Patient Advice and Liaison Service (PALS) Department provides confidential on the spot advice, information and support to patients, relatives, friends, and carers.

Contact Us

Tel: 01942 822376 (Monday to Friday 9am until 4pm)

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Ask 3 Questions

Become more involved in decisions about your healthcare. You may be asked to make choices about your treatment. To begin with, try to make sure you get the answers to three key questions:

1. What are my options?
2. What are the positives and negatives of each option for me?
3. How do I get support to help me make a decision that is right for me?



How We Use Your Information

For details on how we collect, use, and store the information we hold about you, please see patient information leaflet, Ref. **Corp 006** How we use your information, this can be found on the Patient Information Leaflets page on the Trust website, see details on the front cover.

This leaflet is also available in audio, large print, Braille, and other languages upon request. For more information, please ask in the department/ward.

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