

Patient information

Laser Treatment for Macular Oedema

St. Paul's Eye Department

Your Consultant / Doctor has advised you to have laser treatment. There may be alternative treatments or procedures available. Please ask your doctor or nurse to discuss these with you.

What is a laser treatment?

A laser is a highly concentrated beam of light, which is capable of making enough heat to produce a reaction in the tissues of the eye. Laser treatment is used to treat a variety of eye conditions, it is like the microscope used to examine your eyes while in clinic.

What is Macular Oedema?

The blood vessels of the macula leak a combination of fluid and fatty deposits (exudates). This leakage may damage your central vision. We use laser treatment on the areas of your retina, which are thickened with fluid. There are two laser treatments that are often used together.

- Focal macular laser, which involves aiming the laser directly at the leaking blood vessel, known as microaneurysms.
- Grid macular laser, where gentle low power laser burns are applied to your retina in a grid pattern.
- Sometimes we use a three-dimensional photographic examination called a Fluorescein Angiogram to plan this treatment.

What are the benefits of having laser treatment?

- Maintenance of current eyesight.
- Helps prevent future loss of eyesight.
- Sometimes, eyesight can improve.

What are the risks of having laser treatment?

Laser treatment can permanently damage your sight. However, the risks of damage are small. Because of these risks, we only use laser treatment when your sight is in danger.

It would be unusual for you to suffer any sight damage after treatment for macular oedema. But, if this does happen, it can be serious.

From our own measures of outcome after laser for macular oedema, we estimate a one in 300 risk of reduction in vision. Because of these risks, we only offer you this treatment when your vision is definitely getting worse, as we cannot completely avoid accidental laser burns to your central vision.

At times, you may find it difficult to keep still, or you may accidentally look at the laser just as it fires. If we think that the risk of this is too high, we will stop your treatment.

Other complications might include you developing scars or new blood vessel growth under your retina. All these things can mean that you could completely lose your central vision.

At our Eye Unit, we recently worked out the chance of you losing your central vision after laser treatment for macular oedema at one patient in every hundred (0.3%).

What sort of anaesthetic will be given to me?

You will be given a local anaesthetic. Local anaesthetic is drug-induced numbness: it may be provided by an anaesthetist, surgeon or other healthcare professional, depending on the technique used.

Unfortunately, local anaesthetic can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain. Complications are very rare, but can cause lasting injury: they include awareness, paralysis and death.

The risks of anaesthetic and surgery are lower to for those who are undergoing minor surgery, and who are young, fit, active and well. For more information, please ask for a copy of the Royal College of Anaesthetists Patient Information “You and Your Anaesthetic”.

If you are worried about any of these risks, please speak to your Consultant or a member of their team before you are due to have this treatment.

Getting ready for your laser treatment

- Please continue to take your tablets or medication as normal.
- Please continue to eat and drink as normal.

Your laser treatment

- Your pupil will be enlarged using dilating eye drops.
- After anaesthetic drops are put into your eye to numb it, a contact lens is put on your eye. During the treatment, you will see some very bright flashes of light, but your eye will get used to them within a few minutes.
- This treatment involves applying several hundred laser shots very quickly to your retina. Your eye (or eyes if both are being treated) may ache by the end of your treatment. You should find that a mild painkiller like paracetamol should ease the pain.
- Sometimes the laser light will cause a sharp pricking feeling. This will happen where you have underlying nerves. Unfortunately, the doctor who is giving laser treatment cannot see these nerves.

- If you do find the treatment painful, discuss with your nurse before your next session.

After your laser treatment

The effects of both the anaesthetic drops and the laser treatment usually wear off by the next morning.

You must not to drive or ride a bike for 24 hours. If your sight does not recover within 48 hours, you should return to our eye unit or emergency department. Please telephone 0151 706 3949 for advice.

Sometimes the individual spots of laser treatment can be seen close to the centre of vision. This is normal as long as the centre of vision is not affected. The spots usually fade over a few weeks to months.

Further appointments

You will either be given an outpatient appointment for a check up or you will be given an appointment to come back for further laser treatment

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

St Paul's Eye Unit

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