

MicroPulse[®] cyclodiode laser

This leaflet explains about the MicroPulse[®] cyclodiode laser procedure. If you have any further questions or concerns, please speak to a doctor or nurse caring for you.

What is MicroPulse[®] cyclodiode laser?

This is a type of laser used for patients with glaucoma. Traditionally, cyclodiode laser treatment is used when other types of treatment have failed. However, MicroPulse[®] laser is suitable for patients earlier in their treatment.

A cyclodiode laser is a highly concentrated beam of light which can be used to target and treat the part of the eye that produces fluid. MicroPulse[®] cyclodiode laser targets the same part of the eye, but uses very short bursts of energy, allowing the tissue to cool between pulses. This minimises damage and makes it safer.

How does it work?

If you have healthy eyes, the fluid in your eye (aqueous humour) flows through the pupil into the front of the eye. It then drains away through drainage channels. If you have glaucoma, the fluid in the eye cannot drain away properly. This can result in a build-up of pressure within the eye. This pressure damages your optic nerve which carries information from your eye to your brain, and affects your vision.

The MicroPulse[®] cyclodiode laser makes very small burns in the part of the eye that produces fluid (the ciliary body). The aim is to lower the pressure in the eye by reducing the production of fluid. This fluid is separate from tears.

What are the benefits?

This treatment reduces eye pressure to prevent or delay further damage and to reduce possible pain from high eye pressure.

Studies have shown that MicroPulse[®] cyclodiode laser successfully lowers eye pressure in more than 7 in 10 (73%) of patients, with a third (33%) reduction in eye pressure, leading to two-thirds (61%) reduction in the number of glaucoma medications required.

The effects of laser may wear off over months or years, but the treatment can be repeated if needed.

What does the procedure involve?

MicroPulse® cyclodiode laser treatment is normally performed under local anaesthetic. Your eye will be numbed with eye drops and then a small injection will be given around your eye. The injection may cause a pressure sensation and brief discomfort but no pain. You will have the option of requesting light sedation, which is a combination of medicines that is given intravenously (into a vein) to help you relax. The local anaesthetic takes several hours to wear off and may affect your vision during this time. You might want to bring a friend with you as you might have a patch over the treated eye. The procedure can also be done while you are asleep under general anaesthetic.

The laser is applied through a pen-like instrument that is placed against the white of your eye. You will not feel or see the laser and the procedure takes 10-15 minutes. At the end of the procedure an eye pad will be placed over your eye. If your un-operated eye does not see well, your operated eye may not be padded and instead covered with a clear plastic shield.

You will usually be able to go home the same day as your operation. You will be given anti-inflammatory eye drops to use after the procedure. You will have a follow-up appointment to be examined in the clinic a couple of weeks after the procedure to check how effective it was.

How soon will I recover?

Your eye may be red and sore when the anaesthetic wears off. If this happens, you should take normal painkillers. Your sight may be blurred for a few days or even a few weeks, but it should settle down to how it was before the laser treatment.

The laser takes four to six weeks to have its full effect and your doctor will advise you when you can stop your glaucoma medication. Most people take one to two weeks off work, but the length of time will depend on the type of work you do.

It is safe to fly after the surgery, however you will need to be seen regularly by your surgeon up to one month after the procedure.

What are the risks?

Sometimes, patients may need repeat treatment with the laser to lower pressure in the eye.

It is rare to have any serious complications after this procedure. About one in five (20%) of patients report having blurred vision, but this usually gets better within a week.

Your pupil might become dilated (larger) after the laser procedure. This usually improves in one to two months. Very rarely, MicroPulse® cyclodiode laser to one eye may cause inflammation or swelling in the other eye.

If you experience any problems, such as sudden loss of vision or pain, please telephone the glaucoma clinic for advice immediately or visit your nearest Emergency Department (A&E).

Are there any alternatives?

Alternative treatments to MicroPulse® cyclodiode laser include medications (eye drops and/or tablets), or operations such as trabeculectomy or aqueous shunt insertion. If you do not have treatment, there is a risk that the sight or pain in your eye will get worse because of glaucoma.

Contact us

If you have any questions or concerns about having this procedure please leave a message on the glaucoma call-back service (24 hour answerphone), **t:** 020 7188 9121, and we will call you back the next working day.

For more information leaflets on conditions, procedures, treatment and services offered at our hospitals, please visit **w:** www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748, Monday to Friday, 9am-5pm

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch.

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111 **w:** www.111.nhs.uk

NHS website

Online information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, please get in touch.

t: 0800 731 0319 **e:** members@gstt.nhs.uk

w: www.guysandstthomas.nhs.uk/membership

Was this leaflet useful?

We want to make sure the information you receive is helpful to you. If you have any comments about this leaflet, we would be happy to hear from you, fill in our simple online form, **w:** www.guysandstthomas.nhs.uk/leaflets, or

e: patientinformationteam@gstt.nhs.uk

Leaflet number: 4752/VER1

Date published: June 2019

Review date: June 2022

© 2019 Guy's and St Thomas' NHS Foundation Trust

A list of sources is available on request