



PATIENT INFORMATION

SLT Laser

Selective Laser Trabeculoplasty

Laser treatment to lower pressure inside your eye

To achieve the immeasurable, you must measure everything.

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How to use this leaflet

This leaflet is written to be read before your appointment, so that you arrive already familiar with what SLT is for, what it can and cannot achieve, its alternatives, its risks and its costs.

It forms part of your informed consent alongside the assessment and discussion you will have with your consultant and the consent form you sign. No document replaces that conversation.

About This Leaflet

This leaflet is for patients who are considering Selective Laser Trabeculoplasty, usually shortened to SLT. It is a laser treatment used to lower the pressure inside the eye, most commonly in people with ocular hypertension or open-angle glaucoma.

SLT is performed in the clinic, involves no incision and normally takes only a few minutes. You go home the same day.

That simplicity should not obscure why the treatment matters. Glaucoma can cause irreversible damage to the optic nerve, often without symptoms until substantial vision has already been lost. SLT does not restore vision already lost. Its purpose is to lower eye pressure and reduce the risk of further damage.

You will have an in-person assessment before treatment. Your consultant will review your eye pressure, drainage angle, optic nerve and relevant scans, and discuss whether SLT, drops, observation or another treatment is appropriate for you.¹

At Blue Fin Vision®

Your named Blue Fin Vision® consultant ophthalmic surgeon assesses your eyes, determines whether SLT is appropriate, obtains your consent and remains responsible for your treatment pathway.

The decision to perform SLT is based on your individual risk and your measurements, not simply on whether your eye pressure sits above a particular number.

What Is SLT?

Your eye continuously produces a clear fluid called aqueous humour. This fluid circulates through the front of the eye and normally leaves through a drainage structure called the trabecular meshwork. The balance between fluid production and drainage determines the pressure inside your eye.

In open-angle glaucoma and ocular hypertension, resistance to drainage through the trabecular meshwork can contribute to a higher eye pressure.

SLT applies very short pulses of low-energy laser to the pigmented cells within the trabecular meshwork. Rather than burning or cutting the drainage tissue, the laser triggers a biological response that can improve drainage and lower eye pressure over the following weeks.

The word selective matters. SLT was designed to target pigmented cells while producing very little thermal damage to the surrounding tissue. There is no incision, no implant, and nothing is placed permanently inside your eye.

Why Does Eye Pressure Matter?

Glaucoma damages the optic nerve, which carries visual information from the eye to the brain. Eye pressure is the most important risk factor that can be modified. Lowering it reduces the risk of glaucoma developing or progressing, including in eyes whose pressure sits within what would traditionally have been called the normal range.²

There is no single safe pressure for everybody. A pressure that is acceptable for one eye may be too high for another. Your target pressure depends on a number of factors.

- Your starting eye pressure and the appearance of your optic nerve.
- OCT measurements of the retinal nerve fibre layer, and your visual field results.
- Your corneal thickness.
- Whether damage is already present, and whether it is progressing.
- Your age and your lifetime risk.

Treating the eye, not the number

Blue Fin Vision® treats the patient and the measurements rather than a pressure number in isolation. Two eyes with the same pressure can carry very different risk, and the treatment decision should reflect that.

Do I Need Treatment?

SLT may be considered if you have open-angle glaucoma or ocular hypertension and lowering your eye pressure is expected to reduce your risk of future damage. It can be used as a first treatment before pressure-lowering eye drops, or in somebody already using drops whose pressure needs to be reduced further.³

SLT may be particularly useful when

- You have newly diagnosed open-angle glaucoma and would prefer to avoid or delay daily eye drops.
- You have ocular hypertension at sufficient risk to justify treatment.
- Your current drops are not lowering the pressure enough.
- Drops cause troublesome side effects, or using them every day is difficult.
- Reducing the number of medications you take would be beneficial.

SLT is not appropriate for everybody

The drainage angle must be accessible to the laser. Some forms of glaucoma do not respond appropriately to SLT, and an eye with a narrow or closed drainage angle may require a different treatment. Your consultant examines the drainage angle before recommending SLT.

We must be able to say no

A consultation that ends in a recommendation not to perform laser is a successful consultation. If observation, eye drops or another treatment offers the better balance of benefit and risk for your eye, we will tell you so.

Your Alternatives

Observation

Not everybody with a raised eye pressure requires immediate treatment. If your optic nerves and visual fields are healthy and your calculated risk is sufficiently low, careful monitoring may be appropriate. Observation is active management rather than doing nothing: pressure, optic nerve structure and visual function must still be reviewed at appropriate intervals.

Eye drops

Several classes of eye drops lower pressure effectively, by reducing fluid production, improving drainage, or both. Drops avoid laser treatment but usually need to be taken every day for many years. They can cause irritation of the ocular surface and other local or general side effects, and their effectiveness depends on regular use.

Other laser or surgical treatments

For more advanced glaucoma, inadequate pressure control or particular anatomical situations, other procedures may be more appropriate, including minimally invasive glaucoma procedures and conventional glaucoma surgery. Having SLT does not remove any of these future options.

How SLT Works

SLT is applied to the trabecular meshwork around the drainage angle. The treatment does not physically drill drainage holes. Instead, the laser initiates a cellular and biochemical response within the drainage tissue, and over the following weeks this can reduce resistance to outflow and lower eye pressure.

The effect is therefore not instantaneous. Some patients experience a substantial pressure reduction, others a smaller one, and some eyes do not respond sufficiently. That does not mean the procedure was performed incorrectly. Biological response varies between eyes.

Measuring Your Eyes

SLT is performed to change a measurement: your eye pressure. It therefore only makes sense within a pathway that measures what matters before and after treatment.

Your assessment may include the following.

- Repeated measurement of your intraocular pressure.
- Examination of the drainage angle.
- Corneal thickness measurement.
- OCT imaging of the optic nerve and retinal nerve fibre layer.
- Visual field testing where appropriate, and examination of the optic nerve.
- Review of your previous pressure measurements, scans and visual fields.

Your consultant uses these findings to establish why treatment is being recommended and what pressure reduction you are trying to achieve. The purpose of follow-up is then straightforward: to measure whether the treatment achieved it.

On The Day

SLT is performed in the clinic at a slit lamp microscope. There is no theatre, no gown, no injection and no surgical incision. You are seated upright throughout.

- Eat and drink normally and take your usual medication unless specifically advised otherwise.
- Your existing glaucoma drops are normally continued unless your consultant tells you differently.
- Anaesthetic drops numb the surface of your eye.
- A small contact lens is placed gently on the eye, allowing your surgeon to see and focus precisely on the drainage angle.
- You will see a bright light and hear clicks from the laser. Most patients feel little or nothing, although brief discomfort can occur.
- The laser itself normally takes only a few minutes per eye, and pressure-lowering medication may be given around the time of treatment.

Your eye pressure is checked after treatment where your pathway and individual risk make that appropriate. Your vision may be temporarily blurred, particularly from the contact lens and the drops, so do not drive yourself home unless your clinical team has specifically confirmed that it is safe.

After Your Treatment

Your eye may feel mildly gritty or ache for a short time, and vision can be slightly blurred on the day. You can normally return to everyday activity quickly.

You may be prescribed anti-inflammatory treatment depending on your consultant's protocol and the appearance of the eye. Do not stop your existing glaucoma drops unless your consultant specifically tells you to.

SLT takes time to work

The pressure-lowering effect develops over weeks rather than immediately. Your pressure is therefore reassessed after treatment, and any change to your medication is made from those measurements rather than assumed in advance.

How Well Does It Work?

SLT is an established treatment for open-angle glaucoma and ocular hypertension. A large multicentre randomised trial comparing SLT with eye drops as first-line treatment found that SLT was safe and effective, and that a substantial proportion of patients remained at their target pressure without drops over several years of follow-up.³

The amount by which pressure falls varies between patients. SLT tends to produce a greater absolute reduction when the starting pressure is higher. Some eyes respond strongly, some modestly, and a minority show little useful response.

The effect is not necessarily permanent and may diminish over time as the drainage system continues to age. Because SLT produces minimal structural damage to the trabecular meshwork, treatment can sometimes be repeated if the effect later wears off.⁴

Your consultant will give you an individual assessment rather than promising a particular percentage reduction.

Risks

SLT has a strong safety record, but no medical treatment is without risk.

Temporary rise in eye pressure

Pressure can rise shortly after SLT. This is one of the most important early risks, and it is why pressure-lowering medication may be used around the time of treatment and why some patients need an early pressure check. A significant rise is uncommon, but it matters particularly in eyes where the optic nerve is already vulnerable.

Inflammation, discomfort and blurred vision

Mild inflammation is common after treatment and usually settles quickly, with or without a short course of drops. More significant inflammation is uncommon. Mild aching, grittiness, light sensitivity or redness can occur for a short period, and temporary blur immediately after treatment is common and usually settles.

SLT may not lower your pressure enough

Some eyes show little or no useful pressure reduction. This is a limitation of the biological response rather than necessarily a complication. If your target pressure is not reached, further treatment is discussed.

Pressure control can deteriorate later

A successful SLT does not cure glaucoma, and its pressure-lowering effect can reduce with time. This is why long-term monitoring remains essential. Rarer complications will be discussed with you where they are relevant to your individual eye.

If SLT Does Not Lower Your Pressure Enough

There is no single definition of a successful SLT independent of the patient. The question is whether your pressure has fallen sufficiently for your eye.

If it has not, the next step may include allowing more time for the full effect to develop, continuing or changing pressure-lowering drops, repeating SLT where appropriate, adding another glaucoma treatment, or glaucoma surgery where clinically necessary. Having SLT does not prevent any of these options, and a modest pressure reduction can still be clinically useful even if additional treatment is required.

The Long Term

SLT lowers eye pressure. It does not cure glaucoma. The optic nerve therefore still requires monitoring after successful treatment.

Your future pathway may include eye pressure measurement, OCT imaging of the optic nerve and retinal nerve fibre layer, visual field testing, examination of the optic nerve, and review of your medication and your target pressure.

The question that matters

The important question is not simply whether the laser worked. It is whether the pressure is low enough to protect this optic nerve over this patient's lifetime. That answer can change with time, which is why glaucoma care is longitudinal rather than a single episode.

Warning Signs

Contact Blue Fin Vision®, or seek urgent ophthalmic assessment, if you develop any of the following.

- Severe or increasing pain in the treated eye.
- Marked or worsening redness.
- A substantial deterioration in vision, or severe light sensitivity.
- Worsening halos with headache, nausea or vomiting.
- Any other sudden visual change that concerns you.

Mild grittiness, temporary blur and a modest ache shortly after treatment are usually expected, and are different from symptoms that are severe or worsening.

Costs

SLT is a medically indicated treatment, and private medical insurance commonly provides cover, subject to your policy terms and prior authorisation. The fees below apply if you are paying for yourself.

Item	Fee
Consultation and diagnostic assessment	£325
SLT, one eye	£1,000
SLT, both eyes	£1,800

What your treatment fee includes

- Your SLT performed by a Blue Fin Vision® consultant ophthalmic surgeon.
- The treatment-day clinical assessment required for the procedure.
- Pressure monitoring associated with treatment, and post-laser medication where required.
- Routine follow-up relating to the SLT.

Treatment of a separate or unrelated eye condition is not included and is discussed and quoted with you before anything proceeds. You will receive a written quotation confirming your exact total before you commit.

Questions Worth Asking

You are entitled to clear answers to these questions, from us or from any provider you are considering.

- Why does my eye pressure need lowering, and what is my target pressure?
- Is my drainage angle suitable for SLT?
- Could I reasonably be monitored without treatment?
- What are the alternatives, and could I use SLT instead of eye drops?
- If I already use drops, should I continue them after treatment?
- How and when will you determine whether the laser has worked?
- What happens if my pressure does not fall enough, and can SLT be repeated?
- Who will perform my treatment, and who is responsible for my glaucoma follow-up?

Taking your time

Except where an unusually high pressure creates an urgent clinical situation, there is normally time to understand your options and make an informed decision. Blue Fin Vision® does not use time-limited pricing or pressure to proceed.

Where We Operate

Blue Fin Vision® works across the sites below. Governance, protocols and measurement pathways do not vary by postcode. Availability of SLT varies by site, and we will confirm where your treatment is performed when your appointment is arranged.

Site	Address
The Harley Street Eye Centre	22A Harley Street, London W1G 9BP
Weymouth Street Hospital	42-46 Weymouth Street, London W1G 6NP
Phoenix Hospital Chelmsford	Essex Healthcare Park, West Hanningfield Road, Chelmsford CM2 8HN
One Hatfield Hospital	3 Hatfield Avenue, Hatfield, Hertfordshire AL10 9UA
Chase Lodge Hospital	Page Street, Mill Hill, London NW7 2ED
London Eye Diagnostic Centre	25 Harley Street, London W1G 9QW. Insured patients
Abbey Wood Hospital	The Cottage, Bostall Hill, Abbey Wood, London SE2 0GD. Blue Fin Vision® services starting soon

Further information about our structure of care is published at bluefinvision.com/advantage.

Your Clinical Team

Blue Fin Vision® is a consultant-led practice. Your assessment and your SLT are performed within a consultant-led glaucoma pathway. The consultant ophthalmic surgeon responsible for your treatment reviews the clinical measurements on which treatment decisions are based, obtains your consent and remains responsible for your care. This document is authored and clinically governed by our Medical Director.

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Mr Mfazo Hove is a Consultant Ophthalmic Surgeon with experience spanning more than 57 000 procedures. He completed 6.5 years of specialist training at Moorfields Eye Hospital and served as a consultant at the Western Eye Hospital, Imperial College Healthcare NHS Trust, from 2017 to 2022. He has published six consecutive years of outcome data through the National Ophthalmology Database, with a posterior capsule rupture rate in cataract and lens surgery of approximately 0.2 per cent.

Document control

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References

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Contact Blue Fin Vision®

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