

ENDOVENOUS LASER THERAPY FOR VARICOSE VEINS

EVLT is a relatively new, minimally invasive method for treating varicose veins.

Which types of varicose veins are suitable for EVLT?

EVLT is used to treat patients with lumpy varicose veins in the legs. It is not used to treat the tiny veins that are often described as 'flare veins', 'spider veins' or 'broken veins'. 60-70% of patients who have **not** had a previous varicose vein operation are suitable for EVLT. After previous varicose vein surgery EVLT is only possible in 20-30% of cases.

How does EVLT work?

Most varicose veins are caused by a faulty valve in the groin or behind the knee. This faulty valve allows blood to be forced out into the veins under the skin (*the superficial veins*) from the main veins inside the leg (*deep veins*). This leads to the valves in the superficial veins becoming faulty and the increased pressure in the veins causes them to dilate and give rise to varicose veins.

The principle behind EVLT is that the laser is used to obliterate either the long or short saphenous veins. This stops the faulty valve in the groin or behind the knee having any effect. It achieves exactly the same as conventional surgery when a wound is made in the groin or behind the knee to put a ligature around the top of the vein which is then removed by stripping. EVLT is therefore used to treat the underlying cause of your varicose veins.

How can we tell if your varicose veins are suitable for EVLT?

We will examine your legs and perform an ultrasound scan on the veins to identify which faulty valves have caused your varicose veins. If the main faulty valve is in the groin or behind the knee your varicose veins should be suitable for EVLT.

What does laser treatment involve?

The procedure begins with an ultrasound scan to mark the vein in your leg to be treated. An injection of local anaesthetic is given to freeze the skin over the vein. A small needle is inserted into a vein at this point and a flexible wire is passed up the vein. A fine tube is passed over the wire into the vein and the laser filament is threaded up this. The position of the laser fibre is checked with an ultrasound scan. Once the laser fibre is in the right place some more local anaesthetic is injected around the vein to minimise any discomfort when the laser is turned on. The laser works by closing up the vein from the inside. When the vein has been sealed up, the laser is removed and a bandage applied to the leg. You should keep this on for 7 days following which a support stocking is worn for another week.

What happens after the treatment?

After EVLT you will be asked to walk around for 15 minutes, have a drink, and then go home. You should not drive and if travelling by car for more than 1 hour you should stop hourly and walk for 5 minutes.

During the first few days you may feel some discomfort or tightness over the treated vein. Normal activity, including work, can be resumed as soon as you like although we suggest avoiding contact sports, the gym and swimming for 2-3 weeks after EVLT.

When the bandage is removed after 7 days some minor bruising over the treated vein is normal together with some hardness under the skin. This will settle down.

What are the advantages of EVLT compared to surgery?

EVLT has a number of advantages. These are:

- It is performed using local anaesthetic.
- The procedure can normally be done as an outpatient, taking 30- 45 minutes/leg.
- You should be able to resume your normal activities straight away and return to work the following day.
- It avoids the incisions (scars) required for a normal operation and therefore complications such as wound infection.
- Patches of numbness on the skin (5% of patients having conventional surgery) are rare.
- There is very little discomfort or pain after the procedure.
- We do not know if laser treatment will be better, as good, or worse than an operation in the long-term. At the worst some veins may come back. If this happens surgery can still be performed at any time in the future.

What are the results of EVLT?

- In patients who had EVLT more than 3 years ago the results are as good as and possibly better than surgery.

Are there any complications from laser treatment?

Complications following EVLT are uncommon. Those of which you should be aware are:

- Failure to obliterate the vein being treated. This occurs in about 1% of patients. If the vein is not obliterated and you still wish to have treatment for your varicose veins then the options are either to try the laser again or to perform conventional surgery.
- Excessive bruising or tenderness is seen in about 5% of patients.
- About 1% of patients may experience some numbness in the lower leg after EVLT. This is almost always temporary