

Endovenous laser treatment (EVLT)

What is EVLT?

EVLT or endovenous laser ablation (EVLA) is a method of treating varicose veins without surgery. Instead of tying and removing the abnormal veins they are heated by a laser. The heat kills the walls of the veins and the body then naturally absorbs the dead tissue and the abnormal veins are destroyed.

Are my veins suitable for EVLT?

Almost all patients with varicose veins are suitable for EVLT. Those few who are not suitable (usually those with small recurrent veins after previous surgery) can usually be managed with just foam sclerotherapy.

What does the procedure involve?

You lie on a couch and your leg is cleaned and covered with drapes. Depending on which veins are to be treated, you may be on your back or your front.

Endovenous means inside the vein, so the next thing the doctor has to do is to get inside your vein. A small amount of local anaesthetic is injected into the skin over the vein and a needle inserted into it. A wire is passed through the needle and up the vein. The needle is removed and a catheter (thin plastic tubing) is passed over the wire, up the vein and the wire removed.

A laser fibre is passed up the catheter so its tip lies at the highest point to be heated. A large quantity of local anaesthetic solution is then injected around the vein through multiple tiny needle pricks. The laser is then fired up and pulled down the vein over about 5 minutes. You will hear a warning buzzer ringing and may smell or taste burning but won't feel any pain. The laser and catheter are removed and the needle puncture covered with a small dressing.

The treatment takes about 20-30 minutes per leg. You may also have some foam sclerotherapy or some avulsions undertaken and a compression stocking is then put on.

What happens after treatment?

Soon after your treatment you will be allowed home. It is advisable not to drive.

You will have to wear the stockings for up to two weeks. During the first week you will need to wear your stockings day and night. During this time you may take off your stocking after 48 hours for a shower and then put it back on. You may then take your stockings off once a day for showers. After the first week you only need to wear your stocking during the daytime.

You should be able to go back to work soon depending on your profession.

Most patients experience a tightening sensation along the length of the treated vein and some get pain in that area around 5 days later but this is usually mild. Normal anti-inflammatory drugs like Ibuprofen are normally sufficient to relieve it.

Will I need further treatment?

Additional treatment for the varicosities can be either by avulsions or foam sclerotherapy. These additional treatments can be undertaken at the time of the EVLT or more usually after a delay of 4-6 weeks.

Avulsions are undertaken after local anaesthetic solution has been injected around the veins to numb the area. Small incisions are made over the veins and they are teased out with a crochet hook. You may require many small incisions but they heal easily without stitches and with minimal scarring.

Foam sclerotherapy is the commonest means of dealing with residual varicose veins after EVLA and is highly effective for these.

What are the complications?

Serious complications after EVLT are uncommon. They can include:

Thrombophlebitis: EVLT works by heating the wall of the vein and an inevitable and deliberate response to the heat is an inflammation of the vein wall. You may feel the vein that has been treated become hard and tender. Varicose veins that feed from the treated vein may also become hard and lumpy as some blood clot forms within them. This clot is not dangerous and your body will naturally absorb it over a few weeks.

Nerve damage: As nerves can lie alongside the veins these may also become damaged by the heat or by avulsions and a few patients notice small patches of numbness on their skin. These usually resolve over a few months.

Burns: Although it is possible to burn the skin with the laser in practice this is very rare indeed.

DVT: A DVT is a blood clot in the deep veins in the leg. It is a recognised complication of surgery and can be dangerous if the clot breaks away and travels to the lungs. The risk of getting a DVT after EVLT is very low (in around 0.5-1% of cases)

Recurrence: Varicose veins can come back with any type of treatment. The risk over your lifetime of veins coming back is upto 20%.