LASER TREATMENT FOR VARICOSE VEINS

How can varicose veins be treated by laser?

Laser treatment of varicose veins, Endovascular Laser Ablation (known as EVLA), is a new minimally invasive procedure for treating certain types of varicose veins.

Endovenous laser treatment is a method for closing off the long saphenous and short saphenous veins. These are the veins that were formally stripped out by incision in the groin or behind the knee.

The surgeon introduces a laser fibre into the vein under ultrasound control through a single puncture wound. A laser device is passed up into position at the top of the vein. The laser is then switched on and the fibre withdrawn slowly destroying the vein.

The exact method of treatment advised for your varicose veins depends on which of the main valves are leaking and the anatomy of the veins. In most patients it is the valve at the top of the leg (groin) that will need treatment, and this is usually suitable for laser.

What type of Anaesthetic will I have?

The operation may be performed under local anaesthetic which means that you will be fully awake during the procedure. The inside of your leg where the vein is treated will be made numb with local anaesthetic in order that it is not painful when the laser is fired.

You may feel some pushing and pulling or mild discomfort during the procedure. If you feel anything more than this please tell the nurse.

If I have treatment how long will I spend in hospital?

You will have your treatment performed as an outpatient, or as a day case. The procedure itself will take about 45 minutes.

You will be in the hospital treatment area for about 2 hours, but you should keep half a day free just in case of delays.

What happens before the treatment?

When you arrive on the ward the nurses will measure your legs for stockings and show you where to get changed. It is best not to wear tight trousers as you may have difficulty putting them over the bandage afterwards.

The Surgeon or a member of his team will check that all necessary preparations have been made and that you have signed the consent form. He will mark your varicose veins with a pen.
How is the laser treatment performed?

An injection of local anaesthetic is given to freeze the skin at knee level. Once the skin is numb, a needle is inserted into a vein; this is followed by a guide wire and then the laser fibre which is directed to the groin. You will not feel this.

The position of the laser is then checked using an ultrasound scanner. The area around the vein and the skin is then made numb using local anaesthetic injections from the knee to the groin. This usually requires 4-5 injections with a small needle.

The laser is then fired as it is withdrawn from the vein. The heat from the laser closes (cauterises) the vein from the inside.

This treatment helps to prevent further varicose veins developing in the future. This vein (the long saphenous vein) can be treated quite safely, because the blood flows up other veins in the leg after this vein has been treated.

When the vein has sealed up, the laser is removed from the leg and a bandage is applied. This should stay on for 7 days following a light support stocking is worn for another week.

Lasers are powerful sources of energy you and all the staff will wear protective goggles during the time the laser is working.

The veins in your calf will usually shrink following treatment but if they persist they may be treated with injections in the clinic.

How much does it hurt afterwards?

You may experience some discomfort or pulling on the inside of your thigh following the treatment. This may be noticeable at about one week after treatment, but it then settles down. People vary a lot in the amount of pain they experience after the laser, though most experience mild discomfort only.

You will be encouraged to get up and walk immediately following the laser treatment. You will be given 3 day's supply of an anti-inflammatory drug (which is also a pain killer). This normally prevents any discomfort. It is recommended that you take this drug for the full three days unless you have a stomach ulcer or haemorrhage. If this is the case please tell the doctor who is doing the laser treatment, so that an alternative may be prescribed.

If any discomfort occurs after this time it will usually disappear if you take a simple painkiller such as paracetamol.

Will I have dressings or stitches?

The small cut beside your knee were the laser fibre was inserted is closed with an adhesive strip or glue. If it comes off in the shower it does not matter. It is often not possible to wash off all traces of antiseptic or blood from your legs. This will come off when you shower.
What about my wounds?

You may be aware of areas of lumpiness on the leg which may be slightly tender. This is caused by some inflammation in the varicose veins that have been treated. It is not harmful and will gradually go away, but this may take several weeks.

What about bandages and support stockings?

You will have a bandage on the leg. This should be kept on continuously for a week. Do not get the bandage wet. You may find it more comfortable to wear light support stockings during the day for a further 7 days after the bandage is removed. This will be given to you at the time of your laser treatment. You do not need to wear them at night.

How long will I take to recover after the laser?

Immediately following the procedure, once you have got dressed, you will be advised to go for a 10 minute walk. Once you have returned from your walk you will be free to go home.

We will arrange for a check up 6 weeks after the procedure. By that time most of the varicose veins in your leg should have shrunk and many or all of them may have disappeared. Any remaining varicose veins which are causing symptoms may be healed by injection. This is a routine out patient treatment another appointment will be made for this.

How far should I walk?

You may start to walk about as soon after the laser as you are able. You will not damage anything by walking. Frequent walking is more important than walking a long distance.

When will I be fully back to normal?

This varies a lot between different people. Most people are able to return to work with in 2-3 days after treatment- some people go back the following day or even the same day.

When can I drive a car?

You can drive as soon as you feel confident that you can make an emergency stop safely. We advise you not to drive yourself home following the laser treatment, but other than that you can drive as soon as you feel able.

When can I return to work and play sports?

You can return to work and sporting activity as soon after the operation as you feel sufficiently well and comfortable. Avoid contact sports while you are still in support stockings or bandages, and thereafter start with some gradual training, rather than immediate competitions. Do not go swimming until your bandage has been removed.
We suggest avoid strenuous activity like the gym for about 2 weeks after the procedure.

**What problems can occur after the laser treatment?**

Serious complications are very uncommon after laser treatment for varicose veins. You will usually have one small scar next to your knee. This will fade with time.

**Bruising** Some bruising is normal, and occasionally the leg becomes very bruised. This bruising appears during the first few days after laser treatment: It will all go away over a period of weeks.

**Aches, twinges and areas of tenderness** may be felt in the legs for the first few days after the laser: These will settle down, and should not discourage you from becoming fully active as soon as you are able.

**Tender lumps** under the skin are common and caused by blood clot that has collected in the places where the vein has been treated. They are not dangerous and will gradually disappear. It may take up to 12 weeks for all the lumps to disappear. Occasionally they can be quite painful the first two weeks or so.

**Small areas of numbness** in the skin can occasionally occur at the places where varicose veins were treated. This is because tiny nerves may be damaged by heat from the laser. This will not affect the movement of your foot or your ability to walk. The numbness will usually recover over a period of several weeks.

**Deep vein thrombosis;** this causes swelling of the leg and can result in a blood clot passing to the lungs. It is a possible complication after laser treatment, an operation for varicose veins or indeed after any type of surgery. It is unlikely to occur if you start moving your legs and walking frequently soon after treatment. The risk is less then 1%

**Contraceptive pill and HRT containing oestrogen;** If you are taking either of these your risk of thrombosis is increased, and your surgeon will discuss with you the pros and cons of stopping your medications, or continuing it and taking special action to reduce your risk of thrombosis. If you start taking either of these medications whilst you are waiting for your operation you should let your surgeon know by telephoning or writing to his secretary.

**Will my varicose veins come back?**

From studies so far laser treatment has the same results as conventional surgery. The results of laser treatment of varicose veins seem to be the same as traditional treatments. The predisposition to varicose veins is inherent and will always be with you. Some 15-20% of patients will develop some new varicose veins, but often over many years.
Points of contact:

(Vascular Nurse Specialist)
Norfolk & Norwich University Hospital NHS Trust   Tel: 01603 287844

Vascular Surgeon (Secretaries):

Mr J M F Clarke   01603 286434

If you have any queries prior to the procedure outlined and the implications for you or your relatives/carers, please contact the Surgical Pre-Admission Assessment Clinic on 01603 287819.

If you have any queries following surgery, please contact the ward from which you have been discharged via the main hospital switchboard on 01603 286286.

For further information and support:

Vascular Surgical Society of Great Britain and Ireland
Tel: 020 7973 0306 Web address: www.vssgbi.org

For Help Giving Up Smoking: NHS Smoking Help-line 0800 169 0169 or contact the local service ‘CIGNIFICANT’ run by Norwich Health Authority NHS 0800 0854113

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This sheet describes a medical condition or surgical procedure. It has been given to you because it relates to your condition; it may help you understand it better. It does not necessarily describe your problem exactly. If you have any questions please ask your doctor.