

## **Mechanicochemical endovenous ablation (ClariVein)<sup>TM</sup> Patient information**

You have varicose veins which can be treated using mechanico-chemical ablation or “ClariVein”. This information sheet tells you about the procedure. Please read it carefully and ask your surgeon if you have any further questions or concerns.

ClariVein is a minimally invasive treatment for varicose veins. It is different from the “endothermal” treatment methods recommended for patients with varicose veins by the National Institute for Clinical Excellence (NICE), which assesses the safety and effectiveness of all new treatments. ClariVein does not use heat to destroy the vein, instead it uses a chemical injected through a hollow rotating wire which produces inflammation leading to the vein shrinking. Because no heat is involved it doesn't require the injection of local anaesthetic along the length of the vein being treated, and there is no risk of heat injuring the nerves in the lower calf.

### **What will happen during the treatment?**

An ultrasound scan will be done on your leg to identify the veins to be treated. An injection will freeze the skin and a small flexible wire will be passed into the vein. A fine tube is passed over this wire and then the ClariVein catheter is threaded through the tube. The position of the catheter will then be checked again by ultrasound.

The ClariVein catheter is then switched on and as it is slowly pulled back out of the vein a fine rotating wire spins very fast, damaging the lining of the vein, while at the same time a chemical is injected through the wire, leading to inflammation, shrivelling up and closure of the vein. You should not feel anything during the treatment. Once the vein has been sealed up, the catheter is removed and a bandage applied to the leg. This bandage should be kept on for 48 hours, and then a support stocking should be worn for a further 1-2 weeks. The surgeon carrying out the procedure will discuss how long they want you to wear the bandage after the procedure.

Sometimes in order to improve the results of your treatment the surgeon will also inject some of your veins with a foam solution designed to obliterate veins that cannot be treated with the ClariVein catheter. These injections can leave a brownish discolouration in place of the vein, but this almost always disappears within 12 months. Alternatively the more prominent veins may be removed under local anaesthetic, through small incisions in the skin (phlebectomies). Your surgeon will discuss this treatment with you at the time of your treatment if it was not discussed with you at the out-patient clinic.

## **What will happen after treatment?**

After treatment you will be asked to walk around for 15 minutes, have a drink and then go home. You should not drive, and if you are travelling for more than an hour from the hospital you should stop every hour and walk around for 5 minutes. You will be offered a supply of painkillers to take home, although most patients do not require anything stronger than paracetamol. Normal activity, including work, can be resumed as soon as you like, although contact sports, heavy exercise and swimming should be avoided for 1-2 weeks. When the bandage is taken off, you may see some bruising or hardness under the skin. This is quite normal and will gradually settle. You should wear the stocking during the day for up to 2 weeks, but may remove it at bedtime or for bathing.

We will arrange to see you and scan your veins 6 weeks after your treatment, by which time most of the bruising and hardness will have settled. If any small varicose veins remain, these can be treated as an outpatient by injection.

## **What advantages does ClariVein have over other keyhole treatments?**

Because ClariVein doesn't use heat to destroy the vein, there is no requirement to inject local anaesthetic along the length of the vein to be treated, and only a small injection of local anaesthetic is required at the site where the ClariVein catheter is inserted. By not using heat it means that injury to the nerve near the ankle, that can lead to numbness and tingling that can last for 12 months, or even permanently, doesn't occur.

## **What are the potential complications?**

ClariVein is still a relatively new treatment and the longer term results of treatment are not yet known, although it appears to perform similarly to the other keyhole treatments currently available, and is between 90 and 95% effective at closing the treated vein.

There is a chance the vein may not be obliterated by the ClariVein treatment. If the procedure is not effective then it can be tried again, or the veins can be treated by other keyhole methods. There may be a few visible varicose veins left after treatment, but these rarely cause symptoms and become less prominent with time. Most people do not require additional injection treatment for these residual veins.

Some patients have bruising or tenderness along the line of the treated veins that can last for a few weeks, and there can be inflammation (phlebitis) in some branches of the treated vein. This can leave a hard tender lump that may take a few months to settle, and on occasion there can be brown discolouration of the skin that takes some time to disappear.

As with any surgical procedure there is a small risk of blood clots forming in the main leg veins (DVT) and this might be slightly more common after ClariVein than other keyhole treatments where the risk of this happening is around 1 in 100 cases. Allergic reactions to the chemical used during the treatment can occur but are extremely rare.

## **Airline travel**

Although the risk of blood clots is minimal with these keyhole techniques we do not advise patients to undertake long haul air travel within 6 weeks of the procedure. Short flights may be acceptable, but if you have any doubts please contact your consultants secretary before attending for treatment.