

Article 7

Radiofrequency Catheter Ablation Therapy

This is the newest technique for eliminating venous reflux within major superficial veins of the lower extremities. The procedure is an alternative to traditional operative ligation and stripping procedures. The procedure is done under sedation and with local anesthetic. A special catheter is inserted into the vein to be treated. In the case of the greater saphenous vein, this is usually around the inside of the knee. The catheter is advanced to the beginning of the vein. This is done under ultrasound guidance. The tip of the catheter emits radiofrequency energy to weld together the walls of the vein as it is slowly withdrawn (see figure 1). Several recent large studies have shown this to be as safe and effective as stripping and ligation. There are multiple advantages this procedure has over stripping and ligation. First, this can be done in the office setting. Second, there is little, if any, recovery time. Most patients have minimal discomfort and are back to work and normal activity the following day. Third, there are no incisions, just a small puncture wound. This means improved cosmetic results. Fourth, there is no bruising or swelling which often accompanies stripping procedures. One additional benefit is that most patients notice significant improvement in the appearance of ropey leg veins and spider veins after this procedure (see figure 2). The maximum degree of improvement is variable, but usually evident by 6-weeks after the procedure.

Figure 1.
Closure Procedure



**Catheter
inserted
in
refluxing vein**



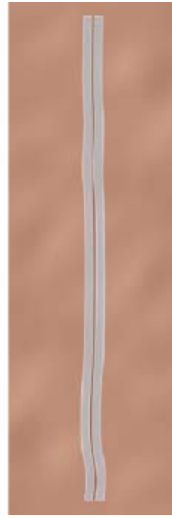
**Catheter
Positioned,
Electrodes
deployed**



**RF Energy
heats and
contracts
vein wall**



**Catheter
slowly
withdrawn,
closing vein**



**Denuded
vein
is physically
narrowed**

