

Lasers Provide Varicose Vein Relief

To find out more about endovascular laser therapy, call 434-924-9401 for an office appointment, or ask about it at the Legs for Life screening. See page 5 for details.

UVa Health System now offers a new way to eliminate varicose veins: endovascular laser therapy. This procedure uses laser light to permanently seal the saphenous vein—the large blood vessel in the leg that is most likely to become a varicose vein.

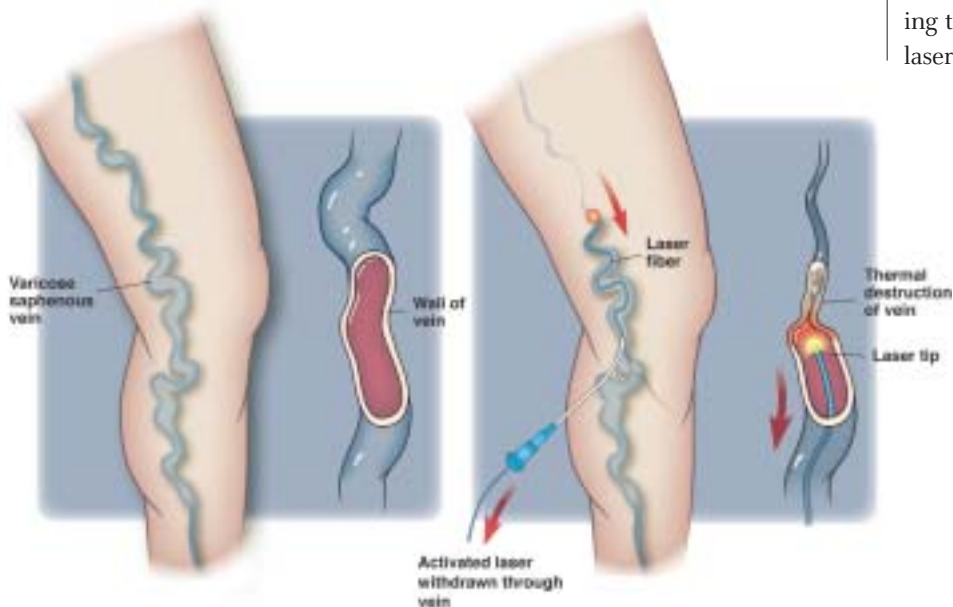
Veins and Arteries

Our bodies have two blood vessel systems. Arteries carry blood from the heart and down to the legs. On the way back to the heart, veins carry blood. In our legs, some veins are buried deep and some are just under the skin.

As we move around and use our muscles, that action squeezes the veins and the blood moves up the leg on its way back to the heart. Valves in the veins keep the blood from coming back down the leg.

Veins Gone Wrong

“If the valves aren’t working, even though we’re moving around, the blood moves up the leg and then it comes right back down again. That’s what causes varicose veins. It’s a pump problem. The blood can’t get out of the leg,” says Fritz Angle, M.D., associate professor of radiology. “Those veins get bigger, which make the valves work even worse. Also, the pressure is highest in the veins down near the feet, which leads to pain, swelling and the development of large veins under the skin.”



Endovascular laser therapy can permanently eliminate varicose veins without surgery to strip the veins. The laser fiber—a thin tube about the size of a strand of spaghetti, is inserted into the saphenous vein through a small cut in the skin. The activated laser heats only the blood and the vein. As the fiber is slowly pulled out, the heat seals the vein closed along the laser’s path.



How the Laser Helps

A small box generates laser light that is transmitted through a laser fiber—a thin tube about the size of a strand of spaghetti. The skin over the vein is numbed with a local anesthetic, and then the laser fiber is inserted through a small cut in the skin into the saphenous vein (see illustration). The laser is activated and the fiber is pulled back slowly, exposing the length of the vein to the laser light. “The laser light heats only the blood and vessel,” says Dr. Angle. “The heat kills the lining cells of that vein and seals the vein closed.” The body reroutes the flow of blood to other veins deeper within the leg.

The procedure itself only takes a few minutes. The entry site is so small that it does not even require stitches. Patients usually go home the same day. At a follow-up appointment a few weeks after the procedure, doctors will use an ultrasound to check if any segments of the vein didn’t close completely. If so, they can inject a drug into the vein to close up that section.

Who Are Candidates?

Candidates for this procedure include those who have varicose, dilated superficial veins with dysfunctional valves, pain and occasional discolored skin. A simple ultrasound exam can tell if the laser procedure could help you. ■