



Heartland
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Leg Vein Treatment Choices

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The following information is extracted from "Make the Best Choice to Erase Leg Veins" in Practical Dermatology, February 2004, p. 38-43. You can have your veins treated either with injections or lasers. What follows is a brief discussion of the advantages and disadvantages of each.

Sclerotherapy

Many people who have a lot of experience treating leg veins still feel that sclerotherapy is the gold standard treatment for this problem. Sclerotherapy involves injecting a solution into a vein which damages the lining of the blood vessel and causes it to scar closed. A very small needle is used to do this, which causes some pain but it is minimal. Fewer treatments are necessary than with lasers to achieve the same results. Sodium tetradecyl sulfate (STS) is a sclerosant which is very effective and has the advantage of not causing additional discomfort when it is injected (so all you feel is the tiny needle prick). It has a low (0.2%) incidence of causing an allergic reaction. Pigment changes in the skin as well as ulceration of the skin are rare. Hypertonic saline (a strong salt solution) is also a sclerosant which has no associated allergic reactions but does cause some additional crampy or burning pain when it is injected. Darkening of the skin may occur where the blood vessel was located after it has disappeared. Injection outside the blood vessel may cause an ulceration of the skin and scarring similar to a chickenpox scar. Some physicians prefer using hypertonic saline for its lack of allergic reactions, and when used by expert hands, the incidence of ulceration is very small (Dr. Angeloni has used hypertonic saline for over 15 years, and has never had ulceration).

Lasers

Laser can produce good results in smaller blood vessels but they will not fully substitute for sclerotherapy (using a needle and injecting a sclerosant into the blood vessel). Despite recent technological advances, intrinsic problems remain. Pain and discomfort during treatment are major disadvantages for the laser versus sclerotherapy. Various cooling devices may decrease the pain of the laser. To get the same results as one sclerotherapy session requires two to three laser treatments. Alteration of the pigmentation with darkening of the skin is possible but is less likely with the longer wavelength lasers (such as the Nd:YAG 1064 nm laser we use). Up to one third (1/3) patients will have prolonged redness or bruising. Where a single injection with a needle might treat the entire length of a vessel, the laser must shoot numerous times along the vessel to treat it. Longer wavelength lasers (such as the 1064nm Nd:YAG laser) allow for deeper light penetration and have low absorption in the blood. They are especially effective for the treatment of bluish veins. Previous studies have shown that there can be 75% improvement in blue and red blood vessels which are less than 4 mm in diameter.

	Sclerotherapy	Laser (longer wavelength)
number of treatments needed	less	more
cost	less	more
pain	minimal (using STS as sclerosant)	some pain with each laser pulse, multiple pulses per vessel
pigmentary changes	rare (using STS as sclerosant)	no
ulceration	rare (using STS)	no

If you are interested in treating your leg veins, you may schedule a free consultation by calling the clinic.