



## Varicose Vein Treatment

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### Definitions

Venous insufficiency is a condition caused by venous hypertension, especially by ambulating. Normally, one-way valves help to maintain blood flow toward the heart against the force of gravity; however, weakened valves do not close properly, thus permitting backward blood flow, a condition referred to as **reflux**. Veins with incompetent valves become elongated, rope-like, bulged and thickened. These vessels are known as **varicose veins** and are a direct result of increased pressure secondary to reflux. Greater saphenous vein (thigh vein) reflux, which leads to pooling in the visible varicose vein, is a common cause of varicose veins in the legs.

Treatment therapies include conservative therapies (i.e., compression stockings, pain medications, leg elevation and local heat applications) as well as surgical treatments directed toward correcting the reflux.<sup>1</sup>

**Table 1 – Allowable Procedures**

<p>Endovenous chemical ablation (EVCA) (sclerotherapy)</p>	<p>A process by which an irritating foam or liquid chemical is directly injected into the affected veins causing them to scar.</p> <p>Sclerotherapy of spider veins (0–1 mm diameter) and small varicosities (&lt; 4 mm) are generally considered cosmetic in nature.</p> <p>Sclerotherapy of larger veins may be medically necessary as long as concomitant saphenous insufficiency, if present, has been treated.</p>
<p>Microfoam Sclerotherapy (Varithena®)</p>	<p>Percutaneous endovenous ablation using manufactured polidocanol microfoam (Varithena®) is injected into veins using ultrasound, displacing blood from the vein and destroying the endothelial lining, which is replaced by scar tissue.</p> <p>Treatment of spider veins (0–1 mm diameter) and small varicosities (&lt; 4 mm) are generally considered cosmetic in nature.</p> <p>Microfoam endovenous ablation (Varithena®) is indicated for the treatment of incompetent great saphenous veins, accessory saphenous veins, and visible varicosities of the great saphenous vein (GSV) system above and below the knee. In clinical trials, veins up to 25.9mm were treated.</p>

<sup>1</sup> Varicose vein surgery or sclerotherapy during pregnancy is not usually appropriate because dilatation of veins in the legs is physiologic and will revert to normal after delivery, at which time a more accurate appraisal can be made.

<p>Endovenous laser ablation of the saphenous vein (ELAS)</p>	<p>A minimally invasive method by which the affected vein (usually the great saphenous vein of the thigh) is destroyed using laser energy delivered via a laser fiber inserted into the vein. ELAS is an alternative to saphenous vein stripping and is indicated when there is duplex-proven saphenous reflux unresponsive to conservative therapy.</p>
<p>Phlebectomy (surgical removal of non-truncal varicose veins)</p>	<p>Described by many terms, including ambulatory phlebectomy, Muller’s Method, stab phlebectomy, and simply phlebectomy.        These are different terms, but they refer to the same essential procedure.</p>
<p>Radiofrequency ablation (RFA)        (Endoluminal radiofrequency thermal heating or radiofrequency endovenous occlusion; e.g., VNUS Closure®)</p>	<p>RFA has been used with or without ligation and division for treatment of incompetence of the saphenofemoral junction and varicosities of the great saphenous vein. A catheter delivers radiofrequency energy through a special electrode that causes controlled heating of the vessel wall, causing the vein to collapse and seal shut.        The VNUS Closure® procedure is a treatment alternative to surgical stripping of the great saphenous vein and is considered a form of RFA. RFA is indicated when there is duplex-proven saphenous reflux unresponsive to conservative therapy.</p>
<p>Excision and ligation or avulsion of varicosities</p>	<p>One or more incisions are made over the varicose veins and the vein is excised and then either tied off (ligated) or, in the case of smaller varicosities, simply avulsed.        Excision of varicosities is indicated for large symptomatic varicosities (&gt; 4 mm diameter) unresponsive to conservative therapy (as long as concomitant saphenous insufficiency, if present, has been treated).</p>
<p>Saphenous vein stripping and excision</p>	<p>Incisions are made at the bottom (ankle end) and at the top (groin end) of the varicose vein. A thin wire-like instrument is inserted into the vein to strip the vein from the inside. Small incisions can also be made over the veins to remove them.        In many cases, the saphenous vein may only be stripped from the groin to the knee or mid-calf instead of all the way to the ankle.        Stripping of the saphenous veins is indicated when there is duplex-proven saphenous reflux unresponsive to conservative therapy.</p>
<p>Subfascial endoscopic perforator vein surgery (SEPS)        (See Limitations/Exclusions)</p>	<p>SEPS is a minimally invasive procedure designed to interrupt incompetent perforator veins as a treatment of chronic venous insufficiency.        Guided by Duplex ultrasound scanning, small incisions are made in the skin unaffected by the changes of severe chronic venous insufficiency. Using endoscopic techniques, the perforating veins are clipped or divided by endoscopic scissors.</p>
<p>Transilluminated powered phlebectomy (TPP/TIPP) aka TriVex procedure (TriVex™)</p>	<p>A minimally invasive type of ambulatory phlebectomy offered as an alternative to standard surgery for symptomatic varicosities of the leg.        It is a 3-part procedure performed under general, regional, or local anesthesia, beginning with tumescent anesthesia to enhance visualization surrounding the varicose veins and to reduce operative discomfort.        Tumescent anesthesia involves infusion of large amounts of saline mixed with lidocaine to reduce hemorrhage and epinephrine to delay absorption of lidocaine. Once adequate tumescent infiltration is achieved, the resector and illuminator are inserted and positioned underneath the skin through small (2-3 cm) incisions on either end of the varicosity. The tip of the resector follows the veins slowly to chop the veins and aspirate fragments.        Once removal of the affected vein(s) is complete, a second stage tumescent anesthesia is employed to minimize blood loss, reduce bruising and hematoma formation and to decrease post-operative pain.        The incisions are then closed using surgical tape or similar closures, and the leg is wrapped.</p>

## Related Medical Guideline

### [Cosmetic Surgery Procedures](#)

#### Guideline

Members are eligible for coverage of any of the procedures in [Table 1](#) when there is documented evidence of patency of the deep vein system and absence of occlusion or disease.

All procedures require the following documentation:

1. Labeled photographs of the area to be treated, which must be clear, in color, dated and recent (within 1 month of the requested procedure). (Photo submission not required for Medicare members)
2. Progress-note documentation of failed conservative measures.
3. Venous Doppler or duplex ultrasound. (Pretreatment Doppler or duplex ultrasound examination must be performed for localization of sites of incompetence to allow individual treatment options and reduce the chance of reoccurrence.
4. Other documentation, as requested.

At least **one** of the following criteria must be met:

1. Recurrent episodes of superficial thrombophlebitis and/or persistent symptoms interfering with activities of daily living for  $\geq 6$  months.  
  
Symptoms may include aching, cramping, burning, itching and/or swelling during activity or prolonged after prolonged standing.  
  
A trial of at least 3 months of conservative non-operative treatment should include periodic leg elevation, prescription gradient compression stockings (20–30 mm or greater) and avoidance of prolonged immobility.
2. Occurrence of a single significant hemorrhage from a ruptured superficial varicosity, especially if a blood transfusion is required.
3.  $> 1$  episode of minor hemorrhage from a ruptured superficial varicosity.
4. Intractable ulceration or infection secondary to venous stasis.

#### Table 2 – Accessory Saphenous Veins

Treatment of accessory saphenous veins by surgery (ligation and stripping), RFA, laser ablation or microfoam endovenous ablation (Varithena) may be considered medically necessary for symptomatic varicose veins/venous insufficiency when **all** of the following criteria are met:

1. The great or small saphenous veins had been previously eliminated (at least 3 months).
2. There is demonstrated accessory saphenous reflux.
3. There is documentation of  $\geq 1$  of the following indications:
  - a. Ulceration secondary to venous stasis that fails to respond to compressive therapy.
  - b. Recurrent superficial thrombophlebitis that fails to respond to compressive therapy.
  - c. Hemorrhage or recurrent bleeding episodes from a ruptured superficial varicosity.
  - d. Persistent pain, swelling, itching, burning, or other symptoms are associated with saphenous reflux and **both**:
    - i. The symptoms significantly interfere with activities of daily living
    - ii. Conservative management including compression therapy for  $\geq 3$  months has not improved symptoms.

## Notes

1. Initial authorization for sclerotherapy will be for 3 sclerotherapy treatments (CPT 36471) per leg as medically necessary. If further sclerotherapy treatments are requested, new recent photos (within 1 month of the requested procedure) with updated clinical information (post-treatment) will be necessary for review.
2. Coverage of laser and RFA is indicated for small/great saphenous veins and anterior/posterior accessory saphenous veins to improve symptoms attributable to saphenofemoral or saphenopopliteal reflux when medical necessity criteria are met. (Maximum allowable vein diameters: ELAS — 20mm; RFA — 18mm)
3. There should be no thrombosis that would interfere with intraluminal procedures.
4. There should be no aneurysm in the target segment.
5. Ultrasound guidance is not covered separately and is included in CPT codes 36478 and 36479.
6. One pre-operative Doppler ultrasound study or duplex scan will be covered.
7. One post-procedure Doppler ultrasound study or duplex scan will be covered.

The use of ultrasound guidance procedures during varicose vein surgery should not be billed separately; these CPT codes are 76937, 76942, 76998, 76999, 93965, 93970, 93971 and S2202. **(Note: Intraoperative ultrasound is covered for Medicare members only)**

8. Selective catheter placement (CPT 36011) is included in procedures used to treat the varicose veins.
9. A procedure performed on the same vessel, above and below the knee, is considered the same procedure if done within a 3-month period.
10. For ablations only a single date of service will be authorized per leg (i.e., all of the symptomatic axial veins in a single leg will be treated on one date of service). Only one primary ablation CPT code and one secondary ablation CPT code will be used to treat all of the axial veins in one leg.
11. Sclerotherapy should not occur sooner than three months after an ablation procedure (VNUS, ELAS or EVLT), ligation and stripping, or phlebectomy since elimination of the larger vessels may cause the smaller venous to significantly decrease in size.
12. Currently, a CPT code does not exist to describe the microfoam endovenous ablation procedure with ultrasound, therefore 37799 should be used with a crosswalk to 36475-36479, and 37765 with percutaneous endovenous ablation in box 19 or the electronic equivalent.
13. Currently, a specific J-code does not exist for Varithena; therefore J3490 should be used with appropriate NDC number.

## Limitations/Exclusions

1. The following procedures are not considered medically necessary because they are regarded as cosmetic:
  - a. Injection of reticular veins, telangiectasia or visible subcuticular veins < 4 mm in size (e.g., spider veins, angiomas and hemangiomas). (CPT codes: 36468 and 36469)
  - b. Transdermal laser therapy and photodermal sclerosis.
2. Sclerotherapy for the great saphenous vein or varicose veins > 7 mm.
3. Treatment of incompetent perforator veins. **(Coverage exception — presence of venous ulcer or history of venous ulcer to prevent recurrence)**
4. All other procedure codes not listed in the table titled Applicable Procedure codes.
5. Requests received for 2 procedures (occurring on the same day) will be reviewed in the same case, dependent on the LOMN, stating that the second procedure will be done within 14 days of the first procedure.

## Revision History

- 3/23/2017 — clarified that photo submission not required for Medicare members.  
 10/20/2016 — clarified Varithena definition and specified indications of usage.  
 9/9/2016 — added sclerotherapy using foam (e.g., Varithena) as an option.  
 8/12/2016 — maximum allowable vein diameter changed from 12mm to 18mm for RFA.

## Applicable Procedure Codes

36470	Injection of sclerosing solution; single vein
36471	Injection of sclerosing solution; multiple veins, same leg
36475	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, radiofrequency; first vein treated
36473	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, mechanochemical; first vein treated (New Code 01/01/2017)
36474	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, mechanochemical; subsequent vein(s) treated in a single extremity, each through separate access sites (List separately in addition to code for primary procedure) (New Code 01/01/2017)
36476	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, radiofrequency; subsequent vein(s) treated in a single extremity, each through separate access sites (List separately in addition to code for primary procedure) (Revised Code 01/01/2017)
36478	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, laser; first vein treated
36479	Endovenous ablation therapy of incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, laser; subsequent vein(s) treated in a single extremity, each through separate access sites (List separately in addition to code for primary procedure) (Revised Code 01/01/2017)
37500	Vascular endoscopy, surgical, with ligation of perforator veins, subfascial (SEPS) (Covered for Medicare members only)
37700	Ligation and division of long saphenous vein at saphenofemoral junction, or distal interruptions
37718	Ligation, division, and stripping, short saphenous vein
37722	Ligation, division, and stripping, long (greater) saphenous veins from saphenofemoral junction to knee or below
37735	Ligation and division and complete stripping of long or short saphenous veins with radical excision of ulcer and skin graft and/or interruption of communicating veins of lower leg, with excision of deep fascia
37760	Ligation of perforator veins, subfascial, radical (Linton type), including skin graft, when performed, open, 1 leg
37761	Ligation of perforator vein(s), subfascial, open, including ultrasound guidance, when performed, 1 leg
37765	Stab phlebectomy of varicose veins, one extremity; 10-20 stab incisions
37766	Stab phlebectomy of varicose veins, one extremity; more than 20 incisions
37780	Ligation and division of short saphenous vein at saphenopopliteal junction (separate procedure)
37785	Ligation, division, and/or excision of varicose vein cluster(s), one leg
37799	Unlisted procedure, vascular surgery (Stab phlebectomy of varicose veins, one extremity; less than 10 stab incisions)
76942	Ultrasonic guidance for needle placement (eg, biopsy, aspiration, injection, localization device), imaging supervision and interpretation
93965	Noninvasive physiologic studies of extremity veins, complete bilateral study (eg, Doppler waveform analysis with responses to compression and other maneuvers, phleborheography, impedance plethysmography) (Deleted 01/01/2017)

93970	Duplex scan of extremity veins including responses to compression and other maneuvers; complete bilateral study
93971	Duplex scan of extremity veins including responses to compression and other maneuvers; unilateral or limited study
J3490	Unclassified drugs
S2202	Echosclerotherapy

### Applicable ICD-10 Codes

180.00	Phlebitis and thrombophlebitis of superficial vessels of unspecified lower extremity
180.01	Phlebitis and thrombophlebitis of superficial vessels of right lower extremity
180.02	Phlebitis and thrombophlebitis of superficial vessels of left lower extremity
180.03	Phlebitis and thrombophlebitis of superficial vessels of lower extremities, bilateral
180.10	Phlebitis and thrombophlebitis of unspecified femoral vein
180.11	Phlebitis and thrombophlebitis of right femoral vein
180.12	Phlebitis and thrombophlebitis of left femoral vein
180.13	Phlebitis and thrombophlebitis of femoral vein, bilateral
180.201	Phlebitis and thrombophlebitis of unspecified deep vessels of right lower extremity
180.202	Phlebitis and thrombophlebitis of unspecified deep vessels of left lower extremity
180.203	Phlebitis and thrombophlebitis of unspecified deep vessels of lower extremities, bilateral
180.209	Phlebitis and thrombophlebitis of unspecified deep vessels of unspecified lower extremity
180.221	Phlebitis and thrombophlebitis of right popliteal vein
180.222	Phlebitis and thrombophlebitis of left popliteal vein
180.223	Phlebitis and thrombophlebitis of popliteal vein, bilateral
180.229	Phlebitis and thrombophlebitis of unspecified popliteal vein
180.231	Phlebitis and thrombophlebitis of right tibial vein
180.232	Phlebitis and thrombophlebitis of left tibial vein
180.233	Phlebitis and thrombophlebitis of tibial vein, bilateral
180.239	Phlebitis and thrombophlebitis of unspecified tibial vein
180.291	Phlebitis and thrombophlebitis of other deep vessels of right lower extremity
180.292	Phlebitis and thrombophlebitis of other deep vessels of left lower extremity
180.293	Phlebitis and thrombophlebitis of other deep vessels of lower extremity, bilateral
180.299	Phlebitis and thrombophlebitis of other deep vessels of unspecified lower extremity
180.3	Phlebitis and thrombophlebitis of lower extremities, unspecified
183.001	Varicose veins of unspecified lower extremity with ulcer of thigh
183.002	Varicose veins of unspecified lower extremity with ulcer of calf
183.003	Varicose veins of unspecified lower extremity with ulcer of ankle
183.004	Varicose veins of unspecified lower extremity with ulcer of heel and midfoot
183.005	Varicose veins of unspecified lower extremity with ulcer other part of foot

183.008	Varicose veins of unspecified lower extremity with ulcer other part of lower leg
183.009	Varicose veins of unspecified lower extremity with ulcer of unspecified site
183.011	Varicose veins of right lower extremity with ulcer of thigh
183.012	Varicose veins of right lower extremity with ulcer of calf
183.013	Varicose veins of right lower extremity with ulcer of ankle
183.014	Varicose veins of right lower extremity with ulcer of heel and midfoot
183.015	Varicose veins of right lower extremity with ulcer other part of foot
183.018	Varicose veins of right lower extremity with ulcer other part of lower leg
183.019	Varicose veins of right lower extremity with ulcer of unspecified site
183.021	Varicose veins of left lower extremity with ulcer of thigh
183.022	Varicose veins of left lower extremity with ulcer of calf
183.023	Varicose veins of left lower extremity with ulcer of ankle
183.024	Varicose veins of left lower extremity with ulcer of heel and midfoot
183.025	Varicose veins of left lower extremity with ulcer other part of foot
183.028	Varicose veins of left lower extremity with ulcer other part of lower leg
183.029	Varicose veins of left lower extremity with ulcer of unspecified site
183.10	Varicose veins of unspecified lower extremity with inflammation
183.11	Varicose veins of right lower extremity with inflammation
183.12	Varicose veins of left lower extremity with inflammation
183.201	Varicose veins of unspecified lower extremity with both ulcer of thigh and inflammation
183.202	Varicose veins of unspecified lower extremity with both ulcer of calf and inflammation
183.203	Varicose veins of unspecified lower extremity with both ulcer of ankle and inflammation
183.204	Varicose veins of unspecified lower extremity with both ulcer of heel and midfoot and inflammation
183.205	Varicose veins of unspecified lower extremity with both ulcer other part of foot and inflammation
183.208	Varicose veins of unspecified lower extremity with both ulcer of other part of lower extremity and inflammation
183.209	Varicose veins of unspecified lower extremity with both ulcer of unspecified site and inflammation
183.211	Varicose veins of right lower extremity with both ulcer of thigh and inflammation
183.212	Varicose veins of right lower extremity with both ulcer of calf and inflammation
183.213	Varicose veins of right lower extremity with both ulcer of ankle and inflammation
183.214	Varicose veins of right lower extremity with both ulcer of heel and midfoot and inflammation
183.215	Varicose veins of right lower extremity with both ulcer other part of foot and inflammation
183.218	Varicose veins of right lower extremity with both ulcer of other part of lower extremity and inflammation
183.219	Varicose veins of right lower extremity with both ulcer of unspecified site and inflammation
183.221	Varicose veins of left lower extremity with both ulcer of thigh and inflammation
183.222	Varicose veins of left lower extremity with both ulcer of calf and inflammation
183.223	Varicose veins of left lower extremity with both ulcer of ankle and inflammation
183.224	Varicose veins of left lower extremity with both ulcer of heel and midfoot and inflammation

183.225	Varicose veins of left lower extremity with both ulcer other part of foot and inflammation
183.228	Varicose veins of left lower extremity with both ulcer of other part of lower extremity and inflammation
183.229	Varicose veins of left lower extremity with both ulcer of unspecified site and inflammation
183.811	Varicose veins of right lower extremities with pain
183.812	Varicose veins of left lower extremities with pain
183.813	Varicose veins of bilateral lower extremities with pain
183.819	Varicose veins of unspecified lower extremities with pain
183.891	Varicose veins of right lower extremities with other complications
183.892	Varicose veins of left lower extremities with other complications
183.893	Varicose veins of bilateral lower extremities with other complications
183.899	Varicose veins of unspecified lower extremities with other complications
187.2	Venous insufficiency (chronic) (peripheral)
187.311	Chronic venous hypertension (idiopathic) with ulcer of right lower extremity
187.312	Chronic venous hypertension (idiopathic) with ulcer of left lower extremity
187.313	Chronic venous hypertension (idiopathic) with ulcer of bilateral lower extremity
187.319	Chronic venous hypertension (idiopathic) with ulcer of unspecified lower extremity
187.321	Chronic venous hypertension (idiopathic) with inflammation of right lower extremity
187.322	Chronic venous hypertension (idiopathic) with inflammation of left lower extremity
187.323	Chronic venous hypertension (idiopathic) with inflammation of bilateral lower extremity
187.329	Chronic venous hypertension (idiopathic) with inflammation of unspecified lower extremity
187.331	Chronic venous hypertension (idiopathic) with ulcer and inflammation of right lower extremity
187.332	Chronic venous hypertension (idiopathic) with ulcer and inflammation of left lower extremity
187.333	Chronic venous hypertension (idiopathic) with ulcer and inflammation of bilateral lower extremity
187.339	Chronic venous hypertension (idiopathic) with ulcer and inflammation of unspecified lower extremity
187.391	Chronic venous hypertension (idiopathic) with other complications of right lower extremity
187.392	Chronic venous hypertension (idiopathic) with other complications of left lower extremity
187.393	Chronic venous hypertension (idiopathic) with other complications of bilateral lower extremity
187.399	Chronic venous hypertension (idiopathic) with other complications of unspecified lower extremity

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