



Clinical Policy Title: Varicose vein treatments

Clinical Policy Number: CCP.1131

Effective Date: January 1, 2014
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Next Review Date: September 2019

Related policies:

CCP.1326 Lymphedema garments

Policy contains:

- Varicose veins.
- Compression treatment.
- Surgical treatment.
- Endovenous thermal ablation (radiofrequency or laser).
- Sclerotherapy.
- Phlebectomy.

ABOUT THIS POLICY: AmeriHealth Caritas has developed clinical policies to assist with making coverage determinations. AmeriHealth Caritas' clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of "medically necessary," and the specific facts of the particular situation are considered by AmeriHealth Caritas when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. AmeriHealth Caritas' clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. AmeriHealth Caritas' clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, AmeriHealth Caritas will update its clinical policies as necessary. AmeriHealth Caritas' clinical policies are not guarantees of payment.

Coverage policy

AmeriHealth Caritas considers treatment for varicose veins to be clinically proven and, therefore, medically necessary for members ages ≥ 18 years who meet all of the following criteria (InterQual[®], 2017a – e; Gloviczki, 2011):

- Documented venous reflux ≥ 500 milliseconds (ms) by duplex ultrasound performed within the last six months for the great saphenous vein, the small saphenous vein, or perforator veins that correlate with the member's symptoms.
- Absence of deep venous thrombosis.
- No evidence of clinically significant arterial disease of the lower extremity.
- One of the following clinical indications:
 - Hemorrhage from superficial venous varicosity.
 - Superficial thrombophlebitis unresponsive to medical therapy (e.g., \geq three weeks of non-steroidal anti-inflammatories, \geq six weeks of low molecular weight heparin, or \geq six weeks fondaparinux).
 - Recurrent or residual symptomatic varicose vein after the initial varicose vein procedure with evidence of venous reflux.

- Symptoms of chronic venous insufficiency (see Appendix for clinical classification, etiology, anatomy, and pathophysiology [CEAP] class C2 – C6; Eklof, 2004) that interfere with activities of daily living and are unresponsive to conservative treatment:
 - Symptoms include ache, pain, tightness, skin irritation, heaviness, muscle cramps, and other complaints attributable to venous dysfunction that fail to respond to a trial of nonprescription or prescription analgesics.
 - Conservative treatment is defined as (InterQual, 2017a):
 - Varicose vein (C2) and a Venous Clinical Severity Score < 6 — ≥ six weeks of compression therapy.
 - Varicose vein (C2) and a Venous Clinical Severity Score > 6 — ≥ six weeks of activity modification.
 - Leg or ankle edema/swelling, pigmentation, or eczema (C3 – C4a) — ≥ six weeks of compression therapy, physical therapy or home exercises, and leg elevation.
 - Lipodermatosclerosis (C4b) — ≥ six weeks of compression therapy.
 - Healed venous ulcer (C5) — ≥ six weeks of compression therapy.
 - Active venous ulcer (C6) — ≥ six weeks of wound care with dressing and compression therapy.

AmeriHealth Caritas considers compression therapy (elastic compression stockings, paste gauze boots [Unna boots], multilayer elastic wraps, dressings, elastic and nonelastic bandages, and nonelastic garments; pneumatic compression devices for refractory edema and venous ulcers) to be clinically proven and, therefore, medically necessary for the following indications (Gloviczki, 2011):

- Primary therapy for simple varicose veins with an ankle pressure of 20 mm Hg to 30 mm Hg (C2) in members who are not candidates for saphenous vein ablation (corresponds to a Venous Clinical Severity Score < 6).
- Primary therapy for chronic venous insufficiency and venous leg ulcers (C3 – C6 or Venous Clinical Severity Score > 6).
- Adjunctive therapy to saphenous vein stripping or ablation to prevent ulcer recurrence.
- Postoperative therapy to reduce hematoma formation, pain, and swelling.
- Prevention or treatment of post-thrombotic syndrome.

AmeriHealth Caritas considers the following varicose vein treatments to be clinically proven and, therefore, medically necessary for members who meet the general criteria above (InterQual, 2017a-e; Gloviczki, 2011):

- Endovenous thermal (laser and radiofrequency) ablation:
 - No evidence on duplex ultrasound of tortuous great saphenous vein or aneurysmal dilations of the saphenofemoral junction.
 - Greater saphenous vein diameter ≥ 5 mm and small saphenous vein diameter ≥ 3 mm.
- Open venous surgery when endovenous thermal ablation is not possible:
 - High ligation and inversion stripping for great saphenous vein incompetence.
 - High ligation with selective stripping for small saphenous vein incompetence.

- Preservation of the saphenous vein in selected members when performed by a licensed physician trained and experienced in one of the following techniques:
 - Ambulatory conservative hemodynamic treatment of varicose veins (CHIVA).
 - Ambulatory selective varicose vein ablation under local anesthesia (ASVAL).
- Ambulatory (stab) phlebectomy or transilluminated powered phlebectomy as an adjunct to saphenous vein ablation, ligation, or stripping for symptomatic varicose tributary, perforating, or accessory veins ≥ 2.5 mm in diameter, symptomatic hemorrhage, or recurrent bleeding.
- Sclerotherapy (liquid or foam) for symptomatic saphenous veins, varicose tributaries, accessory, and perforator veins ≥ 3.5 mm in diameter using hypertonic saline or U.S. Food and Drug Administration-approved sclerosing agents for varicose vein application:
 - As an adjunct to an initial saphenous vein procedure (ablation, ligation, or stripping) for symptomatic superficial varicosities.
 - For recurrent symptomatic varicose tributaries.
 - For superficial varicosities from venous malformations for which surgery is not advisable.
 - For bleeding, ruptured superficial varicose veins.
 - For large superficial varicosities around a skin ulcer (C5 – C6).
- Subfascial endoscopic perforator vein surgery for perforating veins located beneath a healed or open venous ulcer (C5 – C6) with an outward flow duration of ≥ 500 ms and a diameter of ≥ 3.5 mm, for which endovenous thermal ablation is not feasible.

AmeriHealth Caritas considers any of the following procedures to be clinically proven and, therefore, medically necessary for treatment of recurrent varicose veins, depending on the etiology, source, location, and extent of varicosity: endovenous thermal ablation; ligation of the saphenous stump; ambulatory phlebectomy; and sclerotherapy (Gloviczki, 2011).

Policy ID changed from CP# 16.03.06 to CCP.1131.

For Medicare members only:

AmeriHealth Caritas considers treatment for varicose veins to be medically necessary when provided in accordance with parameters set forth in Local Coverage Article A55229 and Local Coverage Determinations L33454, L33762, L34536, and L34924.

Limitations:

Contraindications to compression therapy include (Rabe, 2018):

- Untreated cellulitis.
- Arterial insufficiency.
- Severe cardiac failure.
- Advanced peripheral neuropathy.
- Fragile tissue paper skin over the bony prominences.

- Dermatitis.
- Allergic reactions to the fabric.

Contraindications to open or minimally invasive treatment approaches for varicose veins include (Gloviczki, 2011):

- Pregnancy.
- Uncorrectable coagulopathy. *Note: For members on anticoagulants, if the decision is made to proceed with the service, the medical record should clearly support that the benefit outweighs the risk and the justification to proceed with the service should be given.
- Active infection at the procedure site.
- Arterial insufficiency.
- Occlusion of the deep venous system.
- Superficial veins as collaterals for occluded deep veins.
- Allergy to the sclerosant.
- Liver dysfunction limiting local anesthetic use.

Requests for endovenous laser or radiofrequency ablation treatment are limited to one session of the greater saphenous system and one session of the lesser saphenous system of the affected extremity. A session may include treatment of multiple veins in one or both legs on a single date of service. Additional requests require medical necessity review.

The number of medically necessary sclerotherapy injection sessions varies with the number of anatomical areas to be injected and the response to each injection. Usually one to three injections are necessary to obliterate any vessel, and multiple vessels may need to be treated during one treatment session. A set of injections is defined as up to 20 sclerotherapy injections during a treatment session.

- Initially, up to two sets of sclerotherapy injections in each affected leg are considered medically necessary when criteria are met.
- Additional sets of injections of sclerosing solution are considered medically necessary for persons with persistent or recurrent symptoms.

The use of ultrasound guidance during sclerotherapy is considered integral to the primary procedure and not separately reimbursable.

AmeriHealth Caritas considers any of the following treatments for varicose veins to be clinically unproven and, therefore, not medically necessary (Gloviczki, 2011):

- Any treatment for cosmetic purposes.
- Any treatment for telangiectatic dermal veins (e.g., reticular, capillary, or venule) described as “spider veins” or “broken blood vessels.”
- Endovenous thermal ablation for veins < 2 mm in diameter.
- Endoluminal cryoablation of any vein.
- Mechanochemical ablation of any vein.
- Sclerotherapy or echosclerotherapy:

- Used alone for symptomatic varicose tributary, extension, or perforator veins in the presence of valvular incompetence of the greater or lesser saphenous veins (by Doppler or duplex ultrasound).
 - Used alone for symptomatic varicose tributary or perforator veins in the absence of saphenous vein reflux or major saphenous vein tributary reflux.
 - For secondary varicose veins resulting from deep vein thrombosis or arteriovenous fistulae when used to treat valvular incompetence of the greater or lesser saphenous veins, with or without associated ligation of the saphenofemoral junction.
- Photothermal sclerosis.
 - Transdermal laser.
 - Polidocanol injection (Asclera™; Bioform Medical Inc., San Mateo, California) as a sclerosing agent.
 - Ambulatory phlebectomy or transilluminated powered phlebectomy for treatment of junctional reflux or for veins < 2.5 mm in diameter.
 - Repeated procedures for venous ablation on the same area of the same vein, in separate surgical procedures.

Alternative covered services:

- Compression therapy.
- Consultation with treating physician or specialist.
- Pharmaceutical therapy (e.g., analgesics, anti-inflammatories, anti-coagulants).
- Physical therapy.
- Wound care.

Background

Varicose veins are dilated veins located under the skin surface (Antani, 2017). The most common etiology of varicose veins is venous insufficiency caused by diseased or damaged venous valves that results in retrograde flow and visible pooling of blood in the veins. Larger varicose veins are found most often in the lower extremities and are commonly the consequence of reflux involving the great and small saphenous veins and their branches. Risk factors for varicose veins include family history, female sex, increased age, multiple pregnancies, increased hydrostatic pressure (e.g., standing for long periods), obesity, and history of deep vein thrombosis.

Clinical diagnosis is based on presenting symptoms and severity of swelling, discoloration, and skin ulcerations (Antani, 2017). Color duplex venous ultrasound is performed to identify the presence and location of reflux and deep vein thrombosis as a potential contributing factor. Plethysmography provides complementary information on venous function in patients with chronic venous insufficiency (Gloviczki, 2011).

Varicosities are generally first treated with conservative measures that target the underlying cause of the

defect, progressing to surgical options for more severe symptoms (Antani, 2017). Conservative measures include weight reduction, leg elevation, walking, and compression therapy. Medical therapy (venoactive drugs) may be used to decrease ankle swelling and accelerate ulcer healing (Gloviczki, 2011). Compression stockings can reduce the risk of great saphenous vein reflux and the worsening of symptoms, and adjunctive home-based pneumatic compression may be used for longer treatment periods (Antani, 2017). Traditional surgical management consists of ligation and stripping of the greater saphenous vein. It is used as an initial treatment and for the prevention of future varicose veins. Cryoablation is an alternative stripping method of the great saphenous vein.

Newer, less invasive treatments seal the source of reflux in the main leaking vein using Doppler-guided endovenous thermal ablation with laser or radiofrequency as a heat source or injection (liquid or foam) sclerotherapy (Antani, 2017). Phlebectomy involves the removal of secondary branch varicose veins through multiple small incisions of 2 mm to 3 mm. Examples include transilluminated powered phlebectomy and ambulatory phlebectomy. Subcutaneous transillumination and tumescent anesthesia may be used to visualize and locate the varicosity. These techniques may result in less pain after the procedure, fewer complications, a quicker return to work and normal activities, and improved patient quality of life, and may be performed without general anesthesia. In some cases, less invasive procedures may be combined with ligation and stripping procedures.

Searches

AmeriHealth Caritas searched PubMed and the databases of:

- UK National Health Services Centre for Reviews and Dissemination.
- Agency for Healthcare Research and Quality's National Guideline Clearinghouse and other evidence-based practice centers.
- The Centers for Medicare & Medicaid Services.

We conducted searches on July 23, 2018. Search terms were: "varicose veins" (MeSH) and the free-text term "varicose veins."

We included:

- **Systematic reviews**, which pool results from multiple studies to achieve larger sample sizes and greater precision of effect estimation than in smaller primary studies. Systematic reviews use predetermined transparent methods to minimize bias, effectively treating the review as a scientific endeavor, and are thus rated highest in evidence-grading hierarchies.
- **Guidelines based on systematic reviews.**
- **Economic analyses**, such as cost-effectiveness, and benefit or utility studies (but not simple cost studies), reporting both costs and outcomes — sometimes referred to as efficiency studies — which also rank near the top of evidence hierarchies.

Findings

A Cochrane review comparing new techniques such as radiofrequency ablation to surgery in the treatment of great saphenous vein varicosities found only five trials, with a combined total of 450 patients, that met inclusion criteria (Nesbitt, 2011). Three trials compared laser therapy with surgery, and two trials compared radiofrequency ablation with surgery. Laser therapy was associated with lower rates of technical failure, but also with a trend to higher rates of reopening of the treated vein (recanalization) compared with surgery. No results were available to compare the rates of recurrence. Radiofrequency ablation was associated with trends for fewer technical failures and less new vein growth (neovascularization) compared with surgery, and a trend toward more recanalization within four months with no demonstrated difference in recurrence of varicose veins. Limitations in the evidence were in the presentation of data as either the number of legs or number of patients and varied temporal measurement of outcomes. Currently available evidence suggests radiofrequency ablation and endovenous laser ablation are at least as effective as surgery in the treatment of the great saphenous vein. There are insufficient data to comment on ultrasound-guided sclerotherapy.

A Cochrane review of 17 randomized controlled trials involving more than 3,300 people found sclerotherapy was effective for treating varicose veins; the choice of sclerosant, dose, formulation (foam versus liquid), local pressure dressing, and degree and length of compression had no significant effect on its efficacy in terms of recurrence rates, cosmetic appearance, symptomatic improvement, or complications (Tisi, 2006). Adding local anesthetic to the sclerosing agent reduced the pain of injection in one study. There were no controlled trials comparing sclerotherapy for thread veins with either laser treatment or simple observation. Given its success rates and minimally invasive approach in an outpatient setting, ultrasound-guided sclerotherapy may offer an attractive alternative treatment option for patients before conventional surgical stripping and ligation (phlebectomy), which are inherently more invasive and carry greater morbidity.

Evidence from a number of randomized comparative trials and prospective studies suggests that endovenous laser ablation provides effective venous occlusion of symptomatic varicose veins caused by great saphenous vein reflux in adult patients (Bellmunt-Montoya, 2013; Carroll, 2013; Disselhoff, 2011; Proebstle, 2011). Moderate- to good-quality evidence suggests that the efficacy of endovenous laser ablation is comparable or superior to that of conventional surgical techniques with rates of recurrence generally less than 5 percent. Compared with conventional surgery, patients who underwent endovenous laser ablation experienced less postoperative morbidity with lower extended analgesic requirements, faster recovery, and comparable patient-reported health outcomes (e.g., cosmesis, quality of life, and satisfaction).

Policy updates:

In 2015, AmeriHealth Caritas found one randomized controlled trial (Brittenden, 2014) and one cost-effectiveness analysis comparing treatments of vascular surgery (Mandavia, 2015). These studies confirm current practice guidelines and would not change current policy.

In 2016, we added one new guideline that recommended endovenous mechanochemical ablation for varicose veins (National Institute for Health and Care Excellence, 2016). The decision was based primarily

on favorable short-term safety and efficacy results from one randomized controlled trial of 117 patients comparing mechanochemical ablation to radiofrequency ablation, along with two non-randomized comparative studies and several case series. It encouraged clinicians to collect longer-term follow-up data.

In 2017, a systematic review noted that newer nonthermal ablative techniques have become available that demonstrate significant improvements in the treatment of superficial venous disease, with intermediate-term data suggesting improved durability even in challenging cases (Kugler, 2017). Ultrasound-guided foam sclerotherapy, mechanochemical endovenous ablation, and endovenous delivery of cyanoacrylate tissue adhesive to the vein are promising examples of these new technologies. Perioperative discomfort seems to be minimal but the complication of thrombophlebitis has been reported in up to 15 percent of patients.

In 2018, we added two Cochrane reviews (Paravastu, 2016; Shingler, 2013), a systematic review and meta-analysis (Vemulapalli, 2018), and a consensus statement (Rabe, 2018). Moderate- to low-quality evidence suggests that recanalization or persistence of reflux at six weeks and recurrence of reflux at one year are less frequent when endovenous laser ablation is performed, compared with conventional surgery, but the evidence comparing ultrasound-guided foam sclerotherapy with conventional surgery for incompetent sapheno-popliteal junction varices is less certain due to low-quality evidence (Paravastu, 2016). Endovascular and surgical revascularization are effective treatments for patients with chronic lower extremity venous insufficiency and varicose veins, but there is insufficient evidence to determine the superiority of any one treatment modality (Vemulapalli, 2018).

Compression therapy is the most frequently used treatment for varicose veins for patients with chronic venous disease, but the need for a trial of compression treatment before any intervention for simple varicose veins (C2) is controversial. A systematic review by Shingler (2013) found insufficient evidence to support an advantage of compression stockings for persons with simple varicose veins. The clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum (Gloviczki, 2011) recommended against this trial requirement in persons with simple varicose veins who were candidates for endovenous ablation. These recommendations were based on evidence from several systematic reviews and pivotal trials that showed compression therapy improved symptoms but not disease progression, failed to prevent varicose vein recurrence, and was associated with a high rate of noncompliance.

A consensus statement found beneficial value in applying compression stockings in the treatment of venous and lymphatic disease, including simple varicose veins (Rabe, 2018). The Panel recommended adapting the pressure level to disease severity and using the lowest pressure that relieves symptoms to improve patient compliance.

Summary of clinical evidence:

Citation	Content, Methods, Recommendations
Rabe (2018) for the International Compression Club	<p>Key points:</p> <ul style="list-style-type: none"> • Recommendations (strength of recommendation) for medical compression stockings in patients with chronic venous disease:

Citation	Content, Methods, Recommendations
<p>Indications for medical compression stockings in venous and lymphatic disorders: An evidence-based consensus statement.</p>	<ul style="list-style-type: none"> – To alleviate venous symptoms (Grade 1B). – To improve quality of life and venous severity scores (Grade 1B). – To prevent leg swelling (Grade 1B). – To reduce leg swelling (Grade 1B). – To reduce recurrence of venous leg ulcers (Grade 1A). – To improve lipodermatosclerosis (Grade 1B). – After great saphenous vein treatment to reduce postoperative side effects (Grade 1B). – After liquid sclerotherapy of C1 veins to achieve better outcomes (Grade 2B). <ul style="list-style-type: none"> • Suggest medical compression stockings to improve skin changes in patients with chronic venous disease (Grade 1C). • Insufficient data to recommend medical compression stockings for the prevention of chronic venous disease progression; more research is needed. • Recommend additional eccentric compression to enhance the effectiveness of medical compression stockings in reducing postoperative side effects (Grade 1B). • Do not recommend routine, prolonged use of medical compression stockings for improving clinical success after great saphenous vein interventions, except for those patients with ongoing symptomatic chronic venous disease that benefit from continued chronic venous disease treatment (Grade 1B).
<p>Vemulapalli (2018)</p> <p>Systematic review and meta-analysis of endovascular and surgical revascularization for patients with chronic lower extremity venous insufficiency and varicose veins.</p>	<p>Key points:</p> <ul style="list-style-type: none"> • A systematic review and meta-analysis of 57 studies (n = 105,878) comparing mechanical compression therapy, invasive therapies (surgical and endovascular), and placebo, including 53 randomized controlled trials (n = 10,034). • Overall quality: variable with variable risk of bias. • High ligation/stripping versus radiofrequency ablation revealed no difference in short-term bleeding (odds ratio [OR] 0.30, 95% confidence interval [CI] -0.16 to 5.38, P = .43) or reflux recurrence at one to two years (OR 0.76, 95% CI 0.37 to 1.55, P = .44). • High ligation/stripping versus endovascular laser ablation revealed no difference in long-term symptom score (OR 0.02, 95% CI -0.19 to 0.23, P = .84) or quality of life at two years (OR 0.06, 95% CI -0.12 to 0.25, P = .50).
<p>Paravastu (2016)</p> <p>Endovenous ablation therapy (laser or radiofrequency) or foam sclerotherapy versus conventional surgical repair for short saphenous varicose veins.</p>	<p>Key points:</p> <ul style="list-style-type: none"> • Systematic review of three randomized controlled trials. All compared endovenous laser ablation (n = 185) with surgery (n = 126); one also compared ultrasound-guided foam sclerotherapy (n = 21) with surgery (n = 21). • Overall quality: low to moderate with high risk of bias. • Compared to surgery, endovenous laser ablation was associated with: <ul style="list-style-type: none"> – Less frequent recanalization or persistence of reflux at six weeks (OR 0.07, 95% CI 0.02 to 0.22). – Less frequent recurrence of reflux at one year (OR 0.24, 95% CI 0.07 to 0.77). – Comparable clinical evidence of recurrence (i.e. presence of new visible varicose veins) at one year (OR 0.54, 95% CI 0.17 to 1.75). – Comparable disease-specific quality of life scores (Aberdeen Varicose Veins Questionnaire) either at six weeks (mean difference [MD] 0.15, 95% CI -1.65 to 1.95), or at one year (MD -1.08, 95% CI -3.39 to 1.23). – Four participants each in group required reintervention due to technical failure.

Citation	Content, Methods, Recommendations
	<ul style="list-style-type: none"> – Rare complications reported at six weeks: sural nerve injury, wound infection, and deep venous thrombosis. • For the ultrasound-guided foam sclerotherapy versus surgery comparison, there were insufficient data to detect clear differences between the two treatment groups for recanalization or persistence of reflux at six weeks and recurrence of reflux at one year.
<p>Shingler (2013)</p> <p>Cochrane review</p> <p>Compression stockings for the initial treatment of varicose veins in patients without venous ulceration.</p>	<p>Key points:</p> <ul style="list-style-type: none"> • Systematic review of seven randomized controlled trials with 356 total participants diagnosed with primary trunk varicose veins without healed or active venous ulceration (C2 to C4). Included trials assessed compression stockings versus no treatment (one trial) and different types or pressures of stockings (six trials). • Overall quality: unclear with inadequate reporting and unclear risk of bias. • There is insufficient high-quality evidence to determine whether compression stockings are effective as the sole and initial treatment of varicose veins in people without healed or active venous ulceration, or whether any type of stocking is superior to any other type.

References

Professional society guidelines/other:

Ablation, Endovenous, Varicose Vein. InterQual® 2017 Procedures Criteria. McKesson Corp.(a)

Ambulatory Phlebectomy, Varicose Vein. InterQual® 2017 Procedures Criteria. McKesson Corp.(b)

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Ligation, Subfascial, Endoscopic, Perforating Vein. InterQual® 2017 Procedures Criteria. McKesson Corp.(c)

Ligation/Excision, Varicose Vein, +/- Stripping. InterQual® 2017 Procedures Criteria. McKesson Corp.(d)

Sclerotherapy, Varicose Vein. InterQual® 2017 Procedures Criteria. McKesson Corp.(e)

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Nesbitt C, Eifell RKG, Coyne P, et al. Endovenous ablation (radiofrequency and laser) and foam sclerotherapy versus conventional surgery for great saphenous vein varices. *Cochrane Database Syst Rev* 2011; 10: CD005624. DOI: 10.1002/14651858.CD005624.pub2.

Paravastu SC, Horne M, Dodd PD. Endovenous ablation therapy (laser or radiofrequency) or foam sclerotherapy versus conventional surgical repair for short saphenous varicose veins. *Cochrane Database Syst Rev*. 2016; 11: Cd010878. DOI: 10.1002/14651858.CD010878.pub2.

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Vemulapalli S, Parikh K, Coeytaux R, et al. Systematic review and meta-analysis of endovascular and surgical revascularization for patients with chronic lower extremity venous insufficiency and varicose veins. *Am Heart J*. 2018; 196: 131 – 143. DOI: 10.1016/j.ahj.2017.09.017.

Centers for Medicare & Medicaid Services National Coverage Determinations:

No National Coverage Determinations identified as of the writing of this policy.

Local Coverage Determinations:

A55229 Treatment of Varicose Veins and Venous Stasis Disease of the Lower Extremities.

L33454 Varicose Veins of the Lower Extremities.

L33762 Treatment of Varicose Veins of the Lower Extremities.

L34536 Treatment of Varicose Veins of the Lower Extremities.

L34924 Treatment of Varicose Veins and Venous Stasis Disease of the Lower Extremities.

Commonly submitted codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy. This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

CPT Code	Description	Comments
36475	Endovenous ablation therapy of incompetent vein, extremity, includes of all imaging guidance and monitoring, percutaneous, radiofrequency, first vein treated.	
36476	Second and subsequent veins treated in a single extremity, each through separate access sites.	Add-on code
36478	Endovenous ablation therapy of an incompetent vein, extremity, inclusive of all imaging guidance and monitoring, percutaneous, laser; first vein treated.	
36479	Second and subsequent veins treated in a single extremity; each through separate access sites.	Add-on code

CPT Code	Description	Comments
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 the lower leg, with excision of deep fascia.	
37760	Ligation of perforator veins, subfascial, radical (Linton type), including skin graft, when performed, open, one leg.	
37761	Ligation of perforator vein(s), subfascial, open, including ultrasound guidance when performed; one leg.	
37765	Stab phlebectomy of varicose veins, one extremity; 10-20 stab incisions.	
37766	Stab phlebectomy of varicose veins, 1 extremity; more than 20 stab incisions.	
37780	Ligation and division of short saphenous vein at saphenopopliteal junction.	
37785	Ligation, division, and/or excision of varicose vein cluster(1), one leg.	

ICD-10 Code	Description	Comments
183.001-183.93	Varicose veins, lower extremities	

HCPCS Level II Code	Description	Comments
N/A		

Appendix

Clinical, Etiological, Anatomical and Pathophysiological (CEAP) Classification

Clinical classification:

- C0 — No visible or palpable signs of venous disease.
- C1 — Telangiectasia, reticular veins, malleolar flares.
- C2 — Simple varicose veins (3 mm or larger).
- C3 — Edema without skin changes.
- C4 — Skin changes ascribed to venous disease (e.g., pigmentation, venous eczema, lipodermatosclerosis).
- C4a — Pigmentation or eczema.
- C4b — Lipodermatosclerosis or atrophie blanche.
- C5 — Skin changes as defined above with healed ulceration.
- C6 — Skin changes as defined above with active ulceration.

Source: Gloviczki (2011) adapted from Eklof (2004).