# Medical Coverage Policy

**Effective Date.....5/15/2026**
**Next Review Date.....5/15/2027**
**Coverage Policy Number..... 0313**

# Treatment of Cutaneous and Vascular Lesions

## Table of Contents



## Related Coverage Resources

Rosacea Procedures
Scar Revision

***INSTRUCTIONS FOR USE***

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*for services that are not accompanied by covered code(s) under the applicable Coverage Policy will be denied as not covered. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.*

## Overview

This Coverage Policy addresses the treatment of cutaneous hemangiomas, capillary malformations (including those historically referred to as port wine stains or nevus flammeus), and other cutaneous vascular lesions.

## Coverage Policy

**Coverage for the treatment of cutaneous hemangiomas, capillary malformations, or other vascular lesions varies across plans. Refer to the customer's benefit plan document for coverage details.**

**If coverage is available for treatment of a cutaneous hemangioma, capillary malformation, or other vascular lesion, the following conditions of coverage apply.**

**Laser destruction of cutaneous vascular lesions* is considered medically necessary for ANY of the following:**

- capillary malformation/port wine stain on the face and/or neck
- capillary malformation/port wine stain on the trunk or extremities associated with recurrent bleeding or painful nodules
- infantile hemangioma on the face and/or neck
- cutaneous hemangioma, or other cutaneous vascular malformation (e.g., venous, arteriovenous, lymphatic) and EITHER of the following indications:
    - the lesion is affecting a vital structure (e.g., nose, eyes, ears, lips) and causing a functional impairment
    - the lesion results in **ANY** of the following:
        - bleeding
        - eating difficulty
        - pain
        - repeated infection
        - swallowing difficulty
        - ulceration

***Please Note:** Reference Cigna Medical Coverage Policy 0328 Scar Revision for information regarding treatment of scars using laser therapy.

**Laser destruction of cutaneous vascular lesions for ANY other indication, including but not limited to cherry angiomas and telangiectasias (spider angiomas), is considered cosmetic and not medically necessary.**

## Coding Information

**Notes:**

1. This list of codes may not be all-inclusive since the American Medical Association (AMA) and Centers for Medicare & Medicaid Services (CMS) code updates may occur more frequently than policy updates.
2. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

**Considered Medically Necessary when criteria in the applicable policy statements listed above are met:**

| CPT®* Codes | Description |
|---|---|
| 17106 | Destruction of cutaneous vascular proliferative lesions (eg, laser technique); less than 10 sq cm |
| 17107 | Destruction of cutaneous vascular proliferative lesions (eg, laser technique); 10.0 to 50.0 sq cm |
| 17108 | Destruction of cutaneous vascular proliferative lesions (eg, laser technique); over 50.0 sq cm |



## General Background

Vascular lesions are a diverse group of conditions that involve blood vessels and, in some cases, lymphatic vessels. These conditions are broadly classified into vascular malformations and vascular tumors, which differ significantly in underlying biology, clinical behavior, and response to treatment. Vascular tumors are characterized by abnormal proliferation of endothelial cells and typically demonstrate a growth phase followed by stabilization and, in some cases, gradual decrease in size and activity over time (i.e., involution). In contrast, vascular malformations represent structural abnormalities of the vasculature that persist and often slowly enlarge over time. These distinctions are fundamental to treatment selection and expected clinical outcomes (Martin, 2025; Metry, 2025).

Vascular malformations are congenital developmental anomalies resulting from abnormal vessel formation during fetal development. Although present at birth, they may not be immediately apparent. Unlike vascular tumors, malformations do not regress spontaneously and generally grow proportionally with the individual. They are classified according to the predominant vessel type involved, including capillary, venous, lymphatic, arterial, or mixed forms. Common examples include capillary malformations (historically referred to as port wine stains), venous malformations, lymphatic malformations, and arterial or arteriovenous malformations. Because these lesions reflect disordered vascular architecture rather than active cellular proliferation, spontaneous resolution is not expected (Boon et al., 2025; Galbraith, 2025; Martin, 2025). Vascular malformations may involve a single vessel type or complex combinations of vessel types within the same lesion. Arterial and arteriovenous malformations are characterized by direct connections between arteries and veins without an intervening capillary bed, resulting in high-flow physiology and an increased risk of complications. Some malformations occur as part of multisystem syndromes, such as Klippel Trenaunay syndrome, Sturge Weber syndrome, or capillary malformation–arteriovenous malformation syndrome, which may involve multiple organ systems (Galbraith, 2025; Martin, 2025).

Vascular tumors, in contrast, are defined by endothelial cell proliferation and a more dynamic clinical course. Infantile hemangioma is the most common benign vascular tumor of childhood and

typically follows a predictable pattern of early proliferation followed by stabilization and eventual involution. Other vascular tumors include congenital hemangioma and pyogenic granuloma, also known as lobular capillary hemangioma (Martin, 2025; Metry, 2025).

Classification and terminology for vascular anomalies continues to evolve as understanding of their biological behavior and genetic mechanisms advances. The International Society for the Study of Vascular Anomalies (ISSVA) maintains an internationally accepted classification system that organizes vascular disorders based on clinical behavior, vessel type, and pathophysiology. This system also identifies associated syndromes and known pathogenic genetic variants, supporting diagnostic consistency and standardized communication in clinical contexts (Martin, 2025; Kunimoto et al., 2022).

Clinical presentation of vascular lesions varies by lesion type, size, depth, and anatomic location. Lesions may be asymptomatic or may cause pain, bleeding, ulceration, infection, or functional impairment affecting vision, breathing, feeding, or speech, with the risk of progression or complication guiding the need for active treatment (Boon et al., 2025; Martin, 2025). Management of vascular lesions is individualized based on lesion classification, clinical behavior, anatomic location, and symptom burden. Treatment options may include observation, medical therapy (such as corticosteroids or propranolol for selected vascular tumors), sclerotherapy, laser-based interventions, and surgical procedures. Adjunctive measures, such as compression therapy, may be used for symptom management in select cases. Each treatment approach carries potential risks, including pain, scarring, pigmentary changes, infection, or recurrence (Boon et al., 2025; Greene & Sudduth, 2025; Martin, 2025).

**Laser Therapy**

Laser therapy is used in the treatment of select cutaneous vascular lesions, including capillary malformations (port wine birthmarks, also referred to as port wine stains) and infantile hemangiomas, and may be used for other vascular malformations when clinically appropriate. Lasers deliver focused light energy that can be adjusted by wavelength and pulse duration to target blood vessels within the skin. The primary therapeutic mechanism is selective photothermolysis, in which light is preferentially absorbed by intravascular oxyhemoglobin, resulting in localized heating, coagulation, and destruction of abnormal blood vessels while minimizing injury to surrounding tissue (Garrett et al., 2026; James, 2026a; Kelly, 2025a).

For capillary malformations (port wine stains), pulsed dye laser (PDL) therapy is widely described as first-line treatment and is considered the standard of care. Treatment generally requires multiple sessions, with gradual improvement after each session, although complete clearance is uncommon. Other laser modalities include potassium titanyl phosphate (KTP) lasers (532 nanometers), which may be effective for fine superficial vessels but have greater melanin absorption and an increased risk of pigmentary change, and near-infrared lasers (such as long-pulsed alexandrite, diode, or neodymium-doped yttrium aluminum garnet [Nd:YAG] lasers), which penetrate more deeply and may be used for larger or deeper vessels but typically require higher energy levels and are associated with an increased risk of tissue injury (James, 2026a; Kelly, 2025a).

Laser therapy is not without risk, and cutaneous or ocular injury may occur if appropriate technique and safety measures are not used. Common short-term effects following pulsed dye laser treatment include purpura, which may persist for approximately 10 to 14 days, as well as localized edema and sunburn-like pain. Additional reported adverse effects include hyperpigmentation, hypopigmentation, blistering, ulceration, cutaneous atrophy, and scarring. The risk of ulceration and scarring is higher with some longer-wavelength lasers used to treat deeper vascular structures. In infantile hemangioma, pulsed dye laser therapy has occasionally been associated with treatment-induced ulceration (Garrett et al., 2026; James, 2026a; Kelly, 2025a).

**U.S. Food and Drug Administration (FDA)**
Laser systems used for the treatment of cutaneous vascular lesions are classified by the FDA as Class II medical devices and are regulated through the 510(k) pathway as laser surgical instruments for use in general and plastic surgery and in dermatology. These systems are indicated for the treatment of benign cutaneous vascular lesions of the skin, including conditions such as capillary malformations (port wine birthmarks), hemangiomas, telangiectasias, and other superficial vascular lesions (FDA, 2026).

| Device or Product | Identifier | Manufacturer |
|---|---|---|
| Candela Vbeam® Prima / Vbeam® Perfecta | K230990 | Candela Corporation |
| Family of CoolGlide™ Aesthetic Lasers | K132185 | Cutera, Inc. |
| Cynergy Laser | K043429 | Cynosure, Inc. |
| Fotona Tandem Laser System | K022837 | Fotona d.d. |

*FDA product codes: GEX

Note: Coverage decisions are not based solely on FDA approval. Device or product names are provided for example purposes only. Their inclusion does not indicate endorsement or preference for any specific brand or model. This list is not intended to reflect all available products or technologies.

**Capillary Malformation (Port Wine Stain)**
Capillary malformations (CMs), also referred to as port wine stains or birthmarks, are congenital, low-flow vascular malformations of the dermal capillaries and postcapillary venules that typically present at birth as well-demarcated pink, red, or dark purple (i.e., violaceous) macular lesions, most commonly affecting the head and neck, although the trunk, extremities, and mucous membranes may also be involved (Galbraith, 2025; Kelly, 2025a; Martin, 2025). In rare cases, CMs may be acquired (Fitzpatrick et al., 2018). Over time, CMs may darken, thicken, or develop papular or nodular surface changes, reflecting progressive widening of blood vessels (i.e., ectasia) and hypertrophy of the involved tissues. CMs may occur in isolation or as part of complex vascular and overgrowth syndromes, including Sturge-Weber syndrome, Klippel-Trenaunay syndrome, megalencephaly–capillary malformation–polymicrogyria (MCAP), Cobb syndrome (spinal arteriovenous malformation with port-wine stain), CLOVES, Proteus, Beckwith-Wiedemann, and Bonnet-Dechaume-Blanc syndromes, among others (Martin, 2025). Morbidity associated with CMs is not limited to cutaneous findings and may include progressive hypertrophy of underlying soft tissue or bone (i.e., tissue thickening or overgrowth), development of nodules or papules, recurrent traumatic or spontaneous bleeding, and secondary lesions such as pyogenic granulomas, particularly as lesions thicken and darken over time (Galbraith, 2025; Kelly, 2025a; Martin, 2025; Fitzpatrick et al., 2018). Lesions involving high-risk anatomic distributions, such as the forehead or upper eyelid, warrant evaluation for associated neurologic and ocular involvement to prevent end-organ damage (Galbraith, 2025; Martin, 2025; Baselga, 2018).

**Literature Review**
Laser therapy, most commonly with pulsed dye laser (PDL), is widely used and considered standard treatment for capillary malformations based on its ability to selectively target hemoglobin within abnormally dilated blood vessels resulting in vascular photocoagulation, reduction in lesional blood volume, and improvement in lesion thickness, nodularity, and bleeding propensity, while minimizing injury to surrounding tissue (Galbraith, 2025; Kelly, 2025a; Martin, 2025; Nguyen et al., 2025; Nguyen et al., 2023). Clinical evidence supporting laser

treatment of CMs derives from randomized controlled trials, prospective and retrospective cohort studies, and systematic reviews, including recent meta-analyses demonstrating high rates of clinically meaningful lesion improvement following multiple treatment sessions across pediatric and adult populations, particularly for lesions of the head and neck (Farsi et al., 2025; Nguyen et al., 2025; Nguyen et al., 2023). Treatment courses typically involve serial sessions, with additional benefit observed in lesions complicated by hypertrophy or nodularity, and ongoing therapy may be required due to the potential for lesion persistence or progressive redarkening (Kelly, 2025a; Martin, 2025; Nguyen et al., 2025). Therapy may begin in infancy, when the surface area of involvement is smaller and lesions have not yet progressed to hypertrophy or nodularity, which may reduce later morbidity and improve treatment efficiency over time (Galbraith, 2025; Kelly, 2025a; Martin, 2025). Overall, laser treatment for capillary malformations is reported to be safe and well-tolerated, with most common adverse effects limited to transient erythema, edema, purpura, crusting, or temporary pigmentary change, and low rates of long-term complications (Farsi et al., 2025; Galbraith, 2025; Hashemi, 2025; Nguyen et al., 2025).

**Professional Societies/Organizations**
**American Society for Laser Medicine and Surgery (ASLMS) / Vascular Birthmarks Foundation (VBF)**: The American Society for Laser Medicine and Surgery (ASLMS), in collaboration with the Vascular Birthmarks Foundation (VBF), published a consensus-based Laser Treatment Best Practices for Vascular Birthmarks booklet developed by a multidisciplinary group of laser and vascular anomaly specialists. The document provides expert guidance on the safe and appropriate use of laser therapy for cutaneous vascular birthmarks (e.g. capillary malformations). The ASLMS/VBF guidance identifies pulsed dye laser (PDL) as the most commonly utilized laser modality for superficial vascular birthmarks and emphasizes that treatment response varies based on lesion characteristics, including thickness, anatomic location, and patient-specific factors. The booklet highlights the importance of accurate diagnosis, lesion assessment, and clinician expertise, particularly for lesions involving anatomically sensitive areas such as the face and periocular region (ASLMS & VBF, 2023).

**JAMA Dermatology – Consensus Statement:** A multidisciplinary expert panel published a consensus statement in JAMA Dermatology addressing the management and treatment of port-wine birthmarks (capillary malformations), including those associated with Sturge-Weber syndrome (SWS). The statement emphasizes risk stratification based on lesion distribution and clinical features to guide evaluation and referral for associated neurologic and ocular involvement. With respect to treatment, the consensus identifies pulsed dye laser (PDL) as the primary light-based therapy for port-wine birthmarks in the United States and notes that earlier initiation of laser treatment may improve clinical outcomes, including reduction in progressive darkening, nodularity, and tissue hypertrophy. The panel further indicates that laser therapy, when performed by experienced clinicians, may be safely used across age groups, with treatment decisions individualized based on lesion characteristics, anatomic location, and patient-specific considerations (Sabeti et al., 2021).

**Infantile Hemangioma**
Infantile hemangiomas (IHs), the most common benign vascular tumors of childhood, typically become apparent within the first weeks to months of life and characteristically follow a predictable course of early proliferation followed by gradual regression (involution) over time. Clinically, IHs may present as superficial bright red papules, plaques, or nodules, deeper flesh-colored or bluish subcutaneous nodules, or mixed lesions, and they most commonly involve the head and neck (Kelly, 2025a; Martin, 2025; Metry, 2025). Although the exact cause of IHs is not fully understood, their early growth phase is associated with increased activity of biologic signals that promote blood vessel formation, which diminishes as involution occurs. Established risk factors include female sex, prematurity, low birth weight, and White race (Martin, 2025; Metry, 2025). Diagnosis is typically clinical and based on the lesion's characteristic appearance and growth pattern. While

many IHs are uncomplicated and regress without intervention, lesions involving the face and neck are more likely to be associated with clinically significant complications including ulceration, bleeding, secondary infection, and interference with vital functions such as vision, airway patency, or feeding (Martin, 2025; Metry, 2025).

Management of infantile hemangiomas is guided by lesion location, severity, and risk of complications. Observation is appropriate for most uncomplicated IHs; however, treatment may be indicated for ulcerated lesions or those at risk of functional impairment, particularly when located on the face or neck (Martin, 2025; Metry, 2025). Laser therapy, most commonly pulsed dye laser (PDL), may be used in selected cases, with evidence supporting its use primarily for superficial IHs, ulcerated lesions, and persistent vascular changes following involution (Kelly, 2025a; Martin, 2025). PDL is generally used as an adjunct rather than a primary treatment for higher-risk IHs, which are typically managed with systemic agents such as propranolol. Combination approaches using PDL with topical timolol or systemic propranolol have demonstrated greater improvement in selected patients, particularly those with superficial lesions (Martin, 2025). Adverse effects of PDL are usually localized and transient and may include pain, swelling, blistering, scabbing, and pigmentary changes, while less common complications such as ulceration or scarring have been reported, particularly in larger or segmental lesions (Kelly, 2025a).

**Literature Review**
Laser therapy for infantile hemangiomas (IH) has been evaluated in systematic reviews, including network meta-analysis, randomized controlled trials (RCTs), and retrospective cohort studies, comparing pulsed dye laser (PDL) and other laser modalities (e.g., Nd:YAG) to placebo, pharmacologic therapy (e.g., propranolol or topical timolol), observation, or alternative localized approaches. Primary outcomes typically include lesion regression or clearance, color improvement, treatment duration, recurrence rates, and functional sequelae. A 2025 systematic review of 20 clinical studies (n=2,856) found that 595-nm PDL was most effective for superficial IHs, while Nd:YAG demonstrated greater efficacy for deeper or mixed lesions, and combination therapy consistently yielded higher regression rates and lower recurrence than laser monotherapy, with adverse effects generally mild and infrequent (Chaple Gil et al., 2025). Similarly, a large 2025 systematic review focused on 595-nm PDL for pediatric vascular lesions reported good to complete clearance in 100% of IH studies reporting efficacy outcomes and a very low incidence of permanent adverse effects (0.2%), supporting PDL as a safe and effective early intervention option, either alone or combined with beta-blockers (Hashemi et al., 2025). Earlier evidence from a network meta-analysis of 30 RCTs (n=2,123) comparing over 20 therapeutic regimens concluded that PDL was the most commonly utilized vascular laser for IH and that combined beta-blocker plus laser therapy was associated with the highest efficacy and lowest adverse event rates (Fei et al., 2020). Overall, the available evidence supports the safety and efficacy of laser therapy for the treatment of infantile hemangiomas (Chaple Gil et al., 2025; Hashemi et al., 2025; Shah et al., 2022; Fei et al., 2020).

**Professional Societies/Organizations**
The **American Academy of Pediatrics (AAP)** published a clinical practice guideline for the management of infantile hemangiomas (Krowchuk, et al., 2019). Within this guideline the AAP classifies IHs as high risk if there is evidence of or potential for life threatening complications, functional impairment, ulceration, structural anomalies or permanent disfigurement. The authors recommend early consult (by one month of age) for lesions that are potentially high risk and report that oral propranolol is the treatment of choice for problematic IHs that require systemic therapy. Surgical management and laser therapy may be recommended as treatment options as well.

**Cutaneous Hemangiomas**

Although high-quality comparative evidence is limited, laser therapy is a widely used and accepted treatment option for select patients with benign vascular tumors including congenital hemangiomas, tufted angioma, spindle cell hemangioma, epithelioid hemangioma, and pyogenic granuloma (lobular capillary hemangioma) (Martin, 2025).

Congenital hemangiomas are benign vascular tumors present at birth that typically appear red or blue, often with visible surface telangiectasias and, in some cases, a surrounding pale halo. Unlike infantile hemangiomas, they do not proliferate after birth and may follow one of three clinical courses: remaining stable as noninvoluting congenital hemangioma (NICH), partially regressing as partially involuting congenital hemangioma (PICH), or rapidly involuting with residual fibrofatty tissue as rapidly involuting congenital hemangioma (RICH). These lesions are distinguished from infantile hemangiomas by their clinical course, negative glucose transporter 1 staining on histopathology, and lack of response to propranolol therapy (Martin, 2025). When prominent superficial telangiectasias are the primary concern, laser therapy may be considered; pulsed dye laser is described for treatment of superficial vessels, while longer-wavelength lasers, such as alexandrite or neodymium-doped yttrium aluminum garnet (Nd:YAG) lasers, may be used for thicker or deeper vessels, including prominent veins (Frieden & Adams, 2025).

Pyogenic granuloma is a benign vascular tumor of the skin or mucous membranes characterized by rapid growth and a friable surface. Clinically, it typically presents as a small, red, shiny papule that may be sessile or pedunculated, often weeps or crusts, may ulcerate, and bleeds easily with minimal trauma due to its composition of exuberant granulation tissue. Lesions may arise at sites of injury, although a clear history of trauma is frequently absent, and recurrence may occur if removal is incomplete (Martin, 2025). Laser therapy is among the described treatment options, with pulsed dye laser, carbon dioxide ($CO_2$) laser, and Nd:YAG laser reported in pediatric and adult populations, supported primarily by case series and retrospective reviews (Lawley, 2024). Pulsed dye laser often requires multiple treatment sessions due to limited dermal penetration; in one pediatric series of 22 children with small lesions (mean size 4 mm), 20 lesions resolved without scarring, and a retrospective review of 212 pediatric patients reported complete resolution in 98 percent. $CO_2$ laser treatment is generally described as effective in a single session, with reported recurrence rates of 2 to 5 percent, while Nd:YAG laser used following biopsy excision demonstrated clearance in 19 of 20 patients after one to four sessions, with mild residual textural changes and no visible scarring in just over half of cases (Lawley, 2024).

Tufted angioma is a rare vascular tumor that typically presents in infancy or early childhood and is defined histologically by discrete tufts of capillaries within the dermis. Clinically, it often manifests as a firm, dusky red to violaceous plaque or nodule that may thicken over time and can be associated with tenderness or functional impairment. Management is individualized based on lesion size, location, symptom burden, and the presence or absence of thrombocytopenia and coagulopathy consistent with Kasabach-Merritt phenomenon. For tufted angiomas not complicated by Kasabach-Merritt phenomenon, pulsed dye laser may be a treatment option for superficial, stain-like lesions (Adams & Frieden, 2026).

**Other Vascular Lesions/Malformations**

The most common low-flow vascular malformations encountered in clinical practice are venous malformations (VMs) and lymphatic malformations (LMs), which are congenital anomalies of malformed vascular channels rather than proliferative tumors (Bailey & Weiss, 2023). These lesions are typically present at birth and classified by the predominant vessel type involved (e.g., capillary, venous, lymphatic, or mixed venous–lymphatic). Treatment is typically reserved for individuals with pain, functional impairment, or complications related to lesion location or progression. Management options may include observation, anticoagulation, laser therapy, sclerotherapy, or surgical excision, with larger or more complex lesions often requiring a multidisciplinary care approach (Tadisina et al., 2024).

**Venous:** Venous malformations (VMs) are the most common low flow vascular malformations and consist of abnormally formed postcapillary venous channels (small veins after capillaries) lined by endothelium with deficient mural smooth muscle (the normal muscle layer that helps veins maintain shape). Lesions may be localized or extensive and can involve the skin, subcutaneous tissue, muscle, or deeper structures. Superficial VMs typically present as compressible, bluish, nonpulsatile masses that enlarge with dependency or increased venous pressure, such as during a Valsalva maneuver. Calcified phleboliths (small, hardened blood clots within the lesion) are characteristic and may be identified on physical examination or imaging. Complications include pain and swelling related to phlebothrombosis (clot formation within the malformation), infection, and location specific functional impairment, including effects on respiration, speech, swallowing, vision, or mobility depending on anatomic involvement. Laser photocoagulation may be used for superficial facial VMs and may be combined with sclerotherapy when both superficial and deep components are present (Bailey & Weiss, 2023).

Angiokeratomas are vascular malformations characterized by dilated superficial dermal vessels with an overlying hyperkeratotic epidermis (thickened outer skin layer) and represent a varied group of related conditions rather than a single disease process. Lesions may be solitary or multiple and include angiokeratoma circumscriptum, angiokeratoma of Mibelli, and angiokeratomas of the genital region. Angiokeratoma circumscriptum is considered a malformation of dermal and subcutaneous capillaries and veins and remains unclassified within the current ISSVA framework. These lesions are typically congenital, well defined, red to purple in appearance, most commonly affect the lower extremities, and may develop a verrucous surface (thickened, wart like texture) over time. Superficial ablative treatments are associated with a high risk of recurrence, whereas full thickness excision is generally effective, although recurrence may occur if resection is incomplete (James, 2026b).

Angiokeratoma of Mibelli presents as small red to purplish papules that progressively become hyperkeratotic and verrucous, most often involving the dorsal hands and feet, elbows, or knees. Lesions are typically identified in childhood and may be associated with cold sensitivity and acral cyanosis (bluish discoloration of the fingers or toes). Histopathologic features include epidermal hyperkeratosis with dilation of subpapillary dermal vessels (enlarged blood vessels just beneath the skin surface). Angiokeratomas may also occur in association with systemic disorders, including Fabry disease, an X linked condition caused by deficiency of α galactosidase A (Kelly et al., 2023; James, 2026b). Laser based therapies, including pulsed dye laser and longer wavelength vascular lasers, may be used to target the vascular component; however, residual keratosis (persistent skin thickening) may remain, and scarring can occur with aggressive treatment or use in sensitive areas, supporting careful patient selection (Kelly et al., 2023).

**Lymphatic (Lymphangioma):** Lymphatic malformations (LMs) are benign cystic lesions composed of abnormally formed lymph vessels lined by endothelium and are classified as macrocystic, microcystic, or mixed based on cyst size. Most lesions occur sporadically and are typically identified at birth or in early childhood, although delayed presentation may occur. The head and neck are the most common sites of involvement, with additional lesions reported in the chest, axillae, and perineum. Macrocystic LMs of the superficial soft tissues are often palpable as rubbery or ballotable masses (i.e., compressible and mobile), while cutaneous LMs may appear as clusters of small vesicles that can leak clear or milky lymphatic fluid when disrupted. Complications include pain and swelling related to intralesional hemorrhage or infection, and lesions involving the head and neck may cause airway compromise (Bailey & Weiss, 2023).

Management of lymphatic malformations is individualized based on lesion type, size, location, and symptom burden. Intervention is generally reserved for lesions that are large or symptomatic, with sclerotherapy described as first line treatment for problematic macrocystic LMs.

Asymptomatic microcystic LMs that are not amenable to sclerotherapy may be managed conservatively. For symptomatic microcystic LMs with cutaneous involvement, nonoperative options include carbon dioxide ($CO_2$) laser therapy, which may be used to control bleeding and lymphatic fluid leakage (Greene & Sudduth, 2025).

**Fibro-Adipose Vascular Anomaly (FAVA):** FAVA has been described as a "new vascular entity"; reportedly a vascular-type malformation, occurring in children, teens or young adults, often associated with pain and dysfunction, occurring mainly in the extremities. The anomaly has been defined as "a fibro-adipose vascular anomaly involving veins that are engorged and intertwined with fibrofatty tissue in the muscle, and subcutaneous and cutaneous lymphatic malformation" (Shaikh, et al., 2016; Alomari, et al., 2017) and may be associated with contracture formation. It is a slow-flow vascular-type malformation (venous to lymphatic) (Alomari, et al., 2017). There is limited information in the peer-reviewed published scientific literature evaluating the occurrence of FAVA and treatment outcomes. Conventional management generally includes observation, sclerotherapy, intralesional steroid injection, cryotherapy or ablation; if restriction of movement is present surgical resection/excision may be indicated (Khera, et al., 2021). Authors generally agree however further studies are needed to better define the condition and effective clinical management.

**Cosmetic Procedures:**

Cosmetic treatment of cutaneous and superficial vascular lesions with laser skin resurfacing is intended to reduce the visible appearance of benign vascular skin findings that do not result in functional impairment, such as spider veins. These lesions are most often evaluated for aesthetic reasons or minor symptoms, including intermittent bleeding, and management is generally pursued for cosmetic purposes rather than to improve physiological function (American Society of Plastic Surgeons, 2026; Zachary, 2025).

**Cherry angiomas:** Cherry angiomas, also referred to as cherry hemangiomas or senile angiomas, are the most common acquired cutaneous vascular proliferations. They present as round to oval, bright red to purple, dome-shaped or polypoid papules, typically a few millimeters in diameter, and most commonly occur on the trunk and proximal extremities. These benign lesions increase in number with age and are present in most individuals by later adulthood. Cherry angiomas consist of dilated capillaries and postcapillary venules within the papillary dermis and are generally asymptomatic, though they may bleed when traumatized. Individuals typically seek evaluation due to cosmetic concerns. Removal of cosmetically undesirable or chronically traumatized lesions may be accomplished by shave excision, electrodesiccation, or laser ablation, with recurrences reported to be uncommon. Laser-based approaches including pulsed dye laser (PDL) and potassium titanyl phosphate (KTP) lasers are commonly used, and treatment is directed at improving appearance rather than altering clinical course or function (North, 2025; Zachary, 2025).

**Telangiectasias (e.g., Spider Angiomas):** Telangiectasias are characterized by persistently dilated dermal blood vessels that are visible in the skin and result from vascular dilation rather than new vessel formation. Individual vessels may be discerned, range in color from light red to deep purple, and typically empty with pressure. They are generally small-caliber superficial vessels, often measuring less than 1 mm in diameter and are confined to the dermis. Telangiectasias may occur as a primary process, arise following cutaneous damage, or be associated with systemic hormonal factors; however, many lesions are asymptomatic and treatment is often not required. Spider telangiectasias represent a localized form, consisting of a slightly raised central red papule supplied by a central arteriole with multiple radiating dilated vessels. These lesions are commonly seen on the face, neck, upper trunk, and hands and may occur in otherwise healthy individuals, including women and children. Spontaneous resolution may occur, particularly in hormonally mediated cases such as pregnancy. When treatment is pursued,

it is typically directed at improving visible appearance or addressing minor symptoms rather than correcting functional impairment or preventing medical complications. Available treatment options include cosmetic camouflage, electrosurgery, injection sclerotherapy, and laser-based therapies. A Cochrane systematic review evaluating randomized trials of treatments for telangiectasias and reticular veins emphasized that treatment selection is generally guided by aesthetic outcomes and patient preference rather than medical necessity (American Academy of Cosmetic Surgery, 2026; Kelly, 2025b; Nakano et al., 2021).

**Venous lakes:** Venous lakes are small, dark blue to purple, soft, slightly elevated lesions that most commonly occur on the lips, ears, or face of older adults. They represent telangiectasias of the dermis and consist of one or more dilated venules that may be emptied of blood with pressure; thrombosis may occasionally be present. These lesions are often brought to clinical attention due to cosmetic concerns or periodic bleeding. Traditional treatment with electrocoagulation has been associated with scarring and recurrence. Light-based therapies such as pulsed dye laser (PDL) may be limited by insufficient depth of penetration, whereas longer wavelength devices, including alexandrite and neodymium-doped yttrium aluminum garnet (Nd:YAG) lasers, as well as hemoglobin-targeting lasers, have been reported to improve lesion resolution. Treatment of venous lakes is optional and is undertaken primarily for cosmetic improvement (Kelly, 2025b; Zachary, 2025).

## Health Equity Considerations

Health equity is the highest level of health for all people; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which people are born, grow, live, work, and age.

Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include safe housing, transportation, and neighborhoods; racism, discrimination and violence; education, job opportunities and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

Health disparities related specifically to conditions such as port wine stains, hemangiomas or other cutaneous vascular lesions have not been well-studied in the peer-reviewed literature. The authors of a single study evaluated disparities related to healthcare access for children with infantile hemangioma (Lie, et al., 2018). This group of authors reviewed race/ethnicity, socioeconomic (SE) status, and associated age of presentation to a subspecialist (e.g., dermatology, surgery, ophthalmology) for children with complicated infantile hemangiomas. The study was a retrospective cohort involving 804 children who presented at a large academic hospital for evaluation and treatment. The primary outcome of the study was age at initial presentation, defined as early presentation (prior to age 3 months), delayed (three months to six months) or late (after six months of age). The outcomes of the study indicate mean age at presentation was 1.9 months, 4.3 months, and 21.1 months of age respectively for early, delayed and late evaluation. Low SE status was associated with delayed or late presentation; the early-presenting group (prior to 3 months age) had a greater proportion of children with higher-socioeconomic status (early 83.1% vs. delayed 73.2% vs. late 76.1%, p=0.030). No differences were found when evaluating gender, race, ethnicity or distance to nearest specialty clinic. Clinically, children with increasing severity scores and those having more than one lesion had higher odds of presenting early. Additional clinical studies are needed to evaluate health disparities for individuals with hemangioma, port wine, and other vascular type lesions.

Broader analyses of racial and ethnic health disparities in dermatology suggest that inequities in outcomes are often driven by factors such as access to specialty care, geographic distribution of dermatologists, and delays in referral and diagnosis, rather than differences in disease biology alone (Hooper et al., 2022; Shao et al., 2022). These reviews emphasize that many dermatologic conditions, particularly non-malignant and congenital disorders, remain underrepresented in health disparities research, limiting conclusions regarding condition-specific or treatment-specific inequities. As such, while disparities in dermatologic care are well documented at a population level, data specific to port-wine stains, hemangiomas, and other cutaneous vascular lesions remain limited, highlighting the need for further research in this area.

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## Revision Details

| Type of Revision | Summary of Changes | Date |
|---|---|---|
| Annual Review | • Title change.<br>• Revised policy statements to update terminology from port wine stain to capillary malformation. | 5/15/2026 |

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| | • Revised policy statements to remove references to non-cutaneous or superficial vascular lesions.<br>• Revised policy statement for laser destruction of cutaneous vascular lesions for any other indications to improve clarity.<br>• Removed policy statement for inpatient hospitalization of an infant for administration of oral propranolol for the treatment of cutaneous and/or deep tissue hemangioma | |
| Annual Review | • Clarified policy statements regarding Laser destruction (CPT codes 17106, 17107, 17108) of cutaneous vascular lesions. | 8/15/2025 |
| Focused Review | • Removed policy statement pertaining to vascular embolization/occlusion (CPT codes 61626, 37241, 37242) of cutaneous and/or deep tissue hemangioma or other vascular malformation (e.g., venous, arteriovenous, lymphatic). | 11/01/2024 |
| Annual Review | • No changes to coverage. | 5/15/2024 |