### **Medical Coverage Policy**



# Laser Treatment for Proliferative Vascular Lesions

Device/Equip	ment 🗌 Drug 🗌	Medical 🛛 Surgery	Test Other
Effective Date:	12/4/2007	Policy Last Updated:	9/18/2012

### ➢ Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.

Prospective review is not required.

This policy addresses only laser treatment of port wine stains, hemangiomas, and vascular malformations. It does not address deep, structural lesions that require surgical treatment as those are considered medically necessary and covered.

### **Description:**

A vascular birthmark is an abnormal cluster of blood vessels that occurs during fetal development. Vascular lesions are the most common birthmark encountered in children. Vascular birthmarks may be classified as either hemangiomas or vascular malformations.

### Hemangiomas

Hemangiomas are benign tumors of the endothelial cells characterized by spontaneous involution. The endothelial cells multiply at an abnormally rapid rate producing a hemangioma lesion. Hemangiomas grow rapidly following birth and usually reach maximum size by 12 months of age. Over time, they become smaller and lighter in color. The involution process may take 3 to 10 years. Complications from hemangiomas occur in approximately 20 percent of patients; however, few are life threatening. Approximately 83% occur on the head and neck area. Most hemangiomas require no specific therapy other than patient education. The most common complications are ulceration and compromise of function. In some instances hemangiomas may impair vision, breathing, feeding, or movement.

### Vascular malformations

Vascular malformations may be composed of arteries, veins, capillaries, or lymphatic vessels and are classified by sub-type depending on the predominant abnormality. Vascular malformations are present at birth; however, they may not become visible until weeks or months after birth. They grow at a rate that is commensurate with the growth of the child and continue to grow throughout life and may slowly worsen. Vascular malformations may be superficial or deep, or may have both superficial and deep components. Examples of capillary malformations include nevus flammeus neonatorum (i.e., "stork bite," "angel kiss," salmon patch"), which tends to lighten over time, and the port wine stain (PWS), which tends to darken over time.

The management and severity of hemangiomas and vascular malformations vary greatly dependent upon the type, location, and depth. Most hemangiomas do not require treatment as they involute naturally, and initial management consists of observation. Systemic and/or intra-lesional corticosteroid therapy may be used in complicated hemangiomas to arrest the growth of the lesion. Deep malformations might require surgical removal or other therapies. Pulse-dye lasers may be used for the treatment of hemangiomas and vascular malformations that are superficial, as the laser only penetrates the top 0.75 to 1.5 mm of skin. Combined vascular malformations may require the use of surgery and laser therapy.

### **Medical Criteria:**

Laser treatment for port wine stains, hemangiomas, and other proliferative vascular lesions, or vascular malformations are considered **medically necessary** when a vascular lesion is one of the following:

- Currently symptomatic (e.g., bleeding, painful, ulcerated, prior infection, or pedunculated [growth on a small stalk]); or
- In a periorificial location (region immediately surrounding one of the body openings, including the mouth and the anogenital area, etc).

Laser treatment for port wine stains, hemangiomas, or superficial vascular malformations to alter or to enhance appearance and that do not interfere with physical body function is **not medically necessary** and considered cosmetic.

### Policy:

Laser treatment for hemangiomas, proliferative vascular lesions or vascular malformations is considered **medically necessary** for patients who meet the above-noted medical criteria.

Laser treatment for port wine stains, hemangiomas, or superficial vascular malformations to alter or to enhance appearance and that do not interfere with physical body function is not medically necessary and considered cosmetic.

## Prospective medical review is required for BlueCHiP for Medicare and recommended for all other product lines.

### Coverage:

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement or Member Certificate for applicable surgery benefit/coverage.

### The following CPT Codes are covered for all product lines:

17106 17107 17108

### Also known as:

Hemangioma Port wine stain Proliferative vascular lesions Vascular malformations

### **Related topics:**

Not applicable

### **Published:**

Policy Update, August 2005 Policy Update, February 2007 Policy Update, March 2008 Provider Update, February 2009 Provider Update, January 2010 Provider Update, January 2011 Provider Update, January 2012 Provider Update, November 2012

### **References:**

Huikeshoven M, Koster PHL, de Borgie CAJM, et al. *Redarkening of Port-Wine Stains 10 Years after Pulsed-Dye–Laser Treatment.* The New England Journal of Medicine;007;356:1235-40.

Metry DW, Hebert AH. *Benign Cutaneous Vascular Tumors of Infancy: When to worry, what to do*. Archives of Dermatology; July 2000; 136:905-914.

Metry DW. *UpToDate:*Management of Infantile Hemangioma. Retrieved by Peter Hollmann on 10/31/07: <u>www.utdol.com/utd/content/topic.do?topicKey=ped\_derm/6250&view=print</u>.

Nouri K, Alster TS, Choudhary S, Lupton J, Ballard CJ, Vejjabhinanta V. *Laser Treatment of Acquired and Congenital Vascular Lesions*. Retrieved on 10/14/10: <u>http://emedicine.medscape.com/article/1120509-print</u>.

Peilop JA. *UpToDate:* Vascular lesions and congenital vein in the newborn. Retrieved by Peter Hollmann on 10/31/07: www.utdol.com/utd/content/topic.do?topicKey=ped\_derm/4439&view=print.

Tremaine AM, Armstrong J, Huang YC, Elkeeb L, Ortiz A, Harris R, B andKelly KM, Enhanced port-wine stain lightening achieved with combined treatment of selective photothermolysis and imiquimod. Journal of American Academy of Dermatology;66(4);634-41.

Van Der Horst CMAM, Koster PHL, De Borgie CAJM, Bossuyt PMM; Van Gemert MJC. *Effect of the Timing of Treatment of Port-Wine Stains with the Flash-Lamp–Pumped Pulsed Dye Laser.* The New England Journal of Medicine; 338(15):1028-1033.

Vascular Birthmarks Foundation Website. *Hemangioma Information*.Retrieved on 3/8/07: <a href="http://www.birthmark.org/hemangiomas.php">http://www.birthmark.org/hemangiomas.php</a>.

Wirth FA, Lowitt MH. *Diagnosis and Treatment of Cutaneous Vascular Lesions*. American Family Physician; February 15, 1998. Retrieved on 3/8/2007 from: <u>http://www/aafp.org/afp/980215ap/wirth.html</u>.

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