

Corporate Medical Policy

Surgical Treatments for Lymphedema

File Name: surgical_treatments_for_lymphedema

Origination: 9/2018

Last Review: 11/2023

Description of Procedure or Service

There is no cure for lymphedema. However, physiologic microsurgical techniques such as lymphaticovenular anastomosis or vascularized lymph node transfer have been developed that may improve lymphatic circulation thereby decreasing symptoms and risk of infection.

LYMPHEDEMA

Lymphedema is an accumulation of fluid due to disruption of lymphatic drainage. Lymphedema can be caused by congenital or inherited abnormalities in the lymphatic system (primary lymphedema) but is most often caused by acquired damage to the lymphatic system (secondary lymphedema).

Diagnosis and Staging

A diagnosis of secondary lymphedema is based on history (eg, cancer treatment, trauma) and physical examination (localized, progressive edema and asymmetric limb measurements) when other causes of edema can be excluded. Imaging, such as magnetic resonance imaging, computed tomography, ultrasound, or lymphoscintigraphy, may be used to differentiate lymphedema from others causes of edema in diagnostically challenging cases.

Listed below are International Society of Lymphology Recommendations for Staging Lymphedema based on “softness” or “firmness” of the limb and the changes with an elevation of the limb.

Stage 0 (subclinical): Swelling is not evident and most patients are asymptomatic despite impaired lymphatic transport

Stage I (mild): Accumulation of fluid that subsides (usually within 24 hours) with limb elevation; soft edema that may pit, without evidence of dermal fibrosis

Stage II (moderate): Does not resolve with limb elevation alone; limb may no longer pit on examination

Stage III (severe): Lymphostatic elephantiasis; pitting can be absent; skin has trophic changes

Breast Cancer–Related Lymphedema

Breast cancer treatment is one of the most common causes of secondary lymphedema. Both the surgical removal of lymph nodes and radiotherapy are associated with development of lymphedema in patients with breast cancer.

In a systematic review of 72 studies (N=29,612 women), DiSipio et al (2013) reported that approximately 1 in 5 women who survive breast cancer will develop arm lymphedema. Reviewers reported that risk factors for development of lymphedema that had a strong level of evidence were extensive surgery (i.e., axillary-lymph-node dissection, greater number of lymph nodes dissected, mastectomy) and being overweight or obese.

Management and Treatment

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Early and ongoing treatment of lymphedema is necessary. Conservative therapy may consist of several features depending on the severity of the lymphedema. Individuals are educated on the importance of self-care including hygiene practices to prevent infection, maintaining ideal body weight through diet and exercise, and limb elevation. Compression therapy consists of repeatedly applying padding and bandages or compression garments. Manual lymphatic drainage is a light pressure massage performed by trained physical therapists or by patients, designed to move fluid from obstructed areas into functioning lymph vessels and lymph nodes. Complete decongestive therapy is a multiphase treatment program involving all of the previously mentioned conservative treatment components at different intensities. Pneumatic compression pumps may also be considered as an adjunct to conservative therapy or as an alternative to self-manual lymphatic drainage in patients who have difficulty performing self-manual lymphatic drainage. In patients with more advanced lymphedema after fat deposition and tissue fibrosis has occurred, palliative surgery using reductive techniques such as liposuction may be performed.

RELATED POLICIES

Pneumatic Compression Pumps for Treatment of Lymphedema and Venous Ulcers

Bioimpedance Devices for Detection of Lymphedema

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

Lymphatic physiologic microsurgery is considered investigational for all applications. BCBSNC does not provide coverage for investigational services or procedures.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Surgical Treatments for Lymphedema are covered

Not applicable.

When Surgical Treatments for Lymphedema are not covered

Lymphatic physiologic microsurgery to treat lymphedema (including, but not limited to, lymphaticolymphatic bypass, lymphovenous bypass, lymphaticovenous anastomosis, autologous lymph node transplantation, and vascularized lymph node transfer) is considered **investigational**.

Lymphatic physiologic microsurgery performed during nodal dissection or breast reconstruction to prevent lymphedema (including, but not limited to, the Lymphatic Microsurgical Preventing Healing Approach) is considered **investigational**.

Excisional procedures such as debulking and liposuction to treat lymphedema are considered investigational.

Tissue Transfers such as an omental flap to treat lymphedema are considered investigational.

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Reverse lymphatic mapping used as part of lymphatic surgical or liposuction procedures is considered investigational.

Policy Guidelines

For individuals who have breast cancer–related secondary lymphedema who receive physiologic microsurgery to treat lymphedema along with continued conservative therapy, the evidence includes a randomized controlled trial (RCT), observational studies, and systematic reviews. Relevant outcomes are symptoms, morbid events, functional outcomes, health status measures, quality of life, resource utilization, and treatment-related morbidity. Several physiologic microsurgeries have been developed; examples include lymphaticovenular anastomosis and vascularized lymph node transfer. No RCTs of lymphaticovenular anastomosis or similar surgeries involving the venous system were identified. One RCT of vascularized lymph node transfer with 36 participants has been conducted. Systematic reviews have indicated that the preponderance of the available evidence comes from single-arm clinical series from individual institutions. Surgical technique, outcomes metrics, and follow-up time have varied across these studies. These types of studies might be used for preliminary estimates of the amount of volume reduction expected from surgery, the durability of the reduction in volume, and the rates of adverse events. However, these studies are not adequate for determining the comparative efficacy of physiologic microsurgery vs conservative treatment or decongestive therapy, or the comparative efficacy of different microsurgery techniques. RCTs are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who are undergoing lymphadenectomy for breast cancer who receive physiologic microsurgery to prevent lymphedema, the evidence includes an RCT, observational studies, and systematic reviews. Relevant outcomes are symptoms, change in disease status, morbid events, quality of life, and treatment-related morbidity. Lymphatic Microsurgical Preventing Healing Approach is a preventive lymphaticovenular anastomosis performed during nodal dissection. One RCT including 46 patients has been conducted. The trial reported that lymphedema developed in 4% of women in the Lymphatic Microsurgical Preventing Healing Approach group and 30% in the control group by 18 months of follow-up. However, because the cumulative incidence of lymphedema after breast cancer treatment approximates 30% at 3 years, longer follow-up is needed to assess the durability of the procedure. The trial methods of randomization and allocation concealment were not described and there was no blinding, potentially introducing bias. The remaining evidence consists of uncontrolled studies and systematic reviews of these studies. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

No randomized controlled trials showing the benefit of pedicled or laparoscopic free omental lymphatic flap to treat lymphedema are available.

The efficacy of suction-assisted protein lipectomy (SAPL) for the treatment of lymphedema comes from nonrandomized controlled studies. Liposuction combined with compression therapy reduced lymphedema versus compression alone. Additional controlled studies are needed to demonstrate the efficacy of this technology.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: There is no specific code for lymphatic physiologic microsurgery.. Code 38999 might be used.

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Other applicable codes: 38308, 15878, 15879

*Diagnoses: I89.0 Lymphedema, not elsewhere classified
I97.2 Postmastectomy lymphedema syndrome
Q82.0 Hereditary lymphedema*

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.162, 7/12/2018

International Society of Lymphology Executive Committee. The Diagnosis and Treatment of Peripheral Lymphedema: 2016 Consensus Document of the International Society of Lymphology. 2016; <https://journals.uair.arizona.edu/index.php/lymph/article/view/20106> . Accessed September 5, 2018.

DiSipio T, Rye S, Newman B, et al. Incidence of unilateral arm lymphoedema after breast cancer: a systematic review and meta-analysis. *Lancet Oncol.* May 2013;14(6):500-515. PMID 2354056

Specialty Matched Consultant Advisory Panel 11/2018

National Lymphedema Network Medical Advisory Committee. The Diagnosis and Treatment of Lymphedema. Position Statement of the National Lymphedema Network 2011; Available at: <https://lymphnet.org/position-papers>. Accessed February 2019.

Medical Director review 2/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.162, 2/14/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.162, 7/11/2019

Specialty Matched Consultant Advisory Panel 11/2019

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.162, 9/10/2020

Specialty Matched Consultant Advisory Panel 11/2020

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.162, 9/9/2021

Specialty Matched Consultant Advisory Panel 11/2021

Specialty Matched Consultant Advisory Panel 11/2022

Specialty Matched Consultant Advisory Panel 11/2023

Medical Director Review 11/2023

Policy Implementation/Update Information

9/28/18 New policy developed. Lymphatic physiologic microsurgery to treat lymphedema in individuals who have been treated for breast cancer is considered investigational.

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Lymphatic physiologic microsurgery performed during nodal dissection or breast reconstruction to prevent lymphedema in individuals who are being treated for breast cancer is considered investigational. Policy noticed 9/28/2018 for policy effective date 11/30/2018. (sk)

- 3/12/19 Specialty Matched Consultant Advisory Panel review 11/28/2018. Policy updated to address surgical treatments for lymphedema from any cause. Removed “breast cancer-related” from title and Policy statements. Added “excisional procedures such as debulking and liposuction, tissue transfers such as omental flap, and reverse lymphatic mapping” as investigational. Policy Guidelines updated. Codes 38308, 15878, and 15879 added to Billing/Coding section. Reference added. Medical Director review. Policy noticed 3/12/2019 for effective date 5/14/2019. (sk)
- 7/1/19 Reference added. (sk)
- 10/15/19 Reference added. (sk)
- 12/10/19 Specialty Matched Consultant Advisory Panel review 11/20/2019. (sk)
- 12/8/20 Reference added. Specialty Matched Consultant Advisory Panel review 11/18/2020. (sk)
- 11/30/21 Reference added. Specialty Matched Consultant Advisory Panel review 11/17/2021. (sk)
- 5/2/23 Policy review. Specialty Matched Consultant Advisory Panel review 11/16/2022. (sk)
- 12/5/23 Reference added. Specialty Matched Consultant Advisory Panel review 11/2023. Medical Director review 11/2023. (rp)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.