KAISER PERMANENTE® Mid-Atlantic States	**Surgical Treatment for Lymphedema and Lipedema** **Medical Coverage Policy**

UTILIZATION * ALERT*

- Prior to use of this MCP (Medical Coverage Policy) for evaluation of medical necessity, benefit coverage MUST be verified in the member's EOC (Evidence of Coverage) or benefit document.
- CMS (Center for Medicare Services) does not have national coverage determination on this topic. This policy serves as guidance for the medical necessity of lymphedema and lipedema surgical treatments for Medicare members

I. **Procedure: Surgical Treatment for Lymphedema and Lipedema**

II. **Specialties: Surgery, Plastic Surgery, Lymphology, Dermatology, Wound Care**

III. Clinical Indications for Referral

A. Lymphedema Surgical Treatment

Tumescent liposuction or water jet-assisted liposuction is considered medically necessary for the treatment of lymphedema when **ALL** the following criteria are met:

1. Patient has a confirmed diagnosis of lymphedema, specifically, signs and symptoms consistent with lymphedema as determined by a certified lymphedema therapist and a diagnosis of stage ≥ II lymphedema (ISL) (see Table 1);
2. Required photograph of affected extremities accompanying request for treatment is consistent with the diagnosis of lymphedema; and
3. Significant functional impairment such as difficulty with mobility or performing activities of daily living (ADL) or medical complication (such as recurrent cellulitis); and
4. Documented history of uncontrolled or inadequate lymphedema control after exhausting a course of complex decongestive physiotherapy (CDP) or manual lymphoid drainage and compression therapy, for at least 3 consecutive months; and
5. The plan of care following surgery includes compression garment to maintain the benefits of surgery.

Table 1. International Society of Lymphology (ISL) scale for staging Lymphedema[1]

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[2] Herbst K. L. (2012). Rare adipose disorders (RADs) masquerading as obesity. *Acta pharmacologica Sinica*, *33*(2), 155–172.

Stage	Description
Stage 0: Latent or Subclinical	▪ Impaired lymphatic transport ▪ No evidence of swelling/edema, subtle changes in tissue fluid/composition ▪ Changes in subjective symptoms ▪ May last months or years before progression
Stage I Spontaneously Reversible or Mild	▪ Early accumulation of protein-rich fluid ▪ Pitting edema, no evidence of dermal fibrosis ▪ Subsides with elevation
Stage II Spontaneously Irreversible or Moderate	▪ Accumulation of protein-rich fluid ▪ Pitting edema may progress to non-pitting as excess fat and fibrosis develop ▪ Does not resolve with elevation alone
Stage III Lymphostatic Elephantiasis or Severe	▪ Non-pitting edema ▪ Significant fibrosis ▪ Trophic skin changes such as fat deposits, acanthosis, and warty overgrowths

B. Lipedema Surgical Treatment

Tumescent liposuction or water jet-assisted liposuction is considered medically necessary for the treatment of lipedema when **ALL** the following criteria are met:

1. The patient has a confirmed diagnosis of lipedema based **ALL** the following findings except those noted in section III B, #1, f-h:
   a. Pain, tenderness, and hypersensitivity in lipedema affected areas; and
   b. Easy bruising or bruising without apparent cause in lipedema affected areas; and
   c. Thickened subcutaneous fat in the affected extremities (legs, thighs, hips, or buttocks, or occasionally arms) bilaterally and symmetrically; and
   d. Nodularity of fat deposits in lipedema affected areas (dimpled or orange-peel texture); and
   e. Non-pitting edema in the affected area unless the member has co-existing lymphedema; and
   f. Stemmer sign is negative (the folds of skin can be pinched and lifted at the base of the second toe or at the base of the middle finger) unless the member has comorbid lymphedema; and
   g. Disproportionate fat distribution: for example, the lower body is disproportionately large

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compared to the upper body. This requirement can be waived for those who meet the other listed criteria as a considerable proportion of individuals with lipedema may not have disproportionate fat distribution particularly in the early stage of the disease; and

h. Evidence of "cuffing" (also called “braceleting” or “inverse shouldering”). Note: This criterion can be waived for individuals who meet the other listed criteria or have coexisting lymphedema as some individuals with lipedema may not exhibit cuffing or shouldering.

2. Documentation of significant functional impairment evidenced by difficulty with ambulation and mobility or performing activities of daily living or medical complication (such as recurrent cellulitis); and
3. Lack of effect on lipedema affected areas following weight loss; and
4. Limb elevation does not result in reduction of swelling on lipedema affected areas; and
5. Documented history of inadequate or unsuccessful response to conservative (non-surgical) lipedema management, requiring documentation of adherence to a minimum of three consecutive months of treatment.; and
6. The post-operative plan of care includes patient compliance to compression therapy to maintain the benefits of surgery.

Table 1. Stages of Lipedema by Dr. Wilfried Schmeller and Dr. Karen Herbst [1,]

Stages of Lipedema	Description
Stage 1	▪ Even smooth skin surface with enlarged subcutaneous fat tissue ▪ Fat buildup around pelvis, buttocks, and hips. ▪ Fat buildup from buttocks to knees, with folds of fat around the inner side of the knee. ▪ Fat buildup from buttocks to ankles
Stage 2	▪ Uneven skin pattern with the development of nodular elevations or mass-like appearance and indentations of subcutaneous fat, lipomas and/or angiolipomas ▪ Fat buildup around pelvis, buttocks, and hips. ▪ Fat buildup from buttocks to knees, with folds of fat around the inner side of the knee ▪ Fat buildup from buttocks to ankles.
Stage 3	▪ Large deforming growths of nodular fat or hanging flaps of the thighs and around the knees causing severe contour deformity of the thighs and around the knee ▪ Large extrusions of fat tissue cause buildup from buttocks to knees, with

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	folds of fat around the inner side of the knee. ▪ Large extrusions of fat tissue causing buildup from buttocks to ankles
Stage 4	▪ Development of lipolymphedema where both lipedema and lymphedema are present in the body. This is characterized by large overhangs of tissue, dysfunctional lymphatics, and large extrusion of fat tissue on legs with progression to lipolymphedema

Table 2. Types of Lipedema

Types of Lipedema	Part of the body where adipose tissue builds up
Type 1	Pelvis to buttocks (saddle bag phenomenon)
Type 2	Buttocks to knees with formation of folds of fat around the inner side of the knee
Type 3	Buttocks to ankles
Type 4	Arms
Type 5	Isolated lower leg

IV. Exclusions

The following procedures are considered experimental, investigational, or unproven and therefore not medically necessary. Their effectiveness has not been established for the treatment of chronic lymphedema and lipedema.

A. Surgical Treatment

1. Lymphatic physiological microsurgical procedures such as:
   a. Lymphatic-lymphatic bypass.
   b. Lymphatico-venous anastomosis and lymphaticovenular anastomosis (also referred to as lympho-venous bypass).
   c. Lymphatic-capsular-venous anastomosis; and
   d. Autologous lympho-venous transplantation and vascularized lymph node transfer.
2. Minimally Invasive Tissue Excision with Possible Redundant Skin Excision (the MITESE Procedure).
3. Tissue transfer (such as omental flap or mesenteric flap);
4. Immediate lymphatic reconstruction;
5. Lymphedema direct excision (such as debulking, Charles procedure);
6. Reductive ablative techniques; and
7. Extracorporeal Shockwave Therapy (EST)

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B. Preventive surgical treatment

Lymphatic physiologic microsurgery performed during nodal dissection or breast reconstruction to prevent lymphedema (including, but not limited to Lymphatic Microsurgical Preventing Healing Approach) in individuals who are being treated for breast cancer are considered experimental and investigational; and

C. Reverse lymphatic mapping

Reverse lymphatic mapping used as part of lymphatic surgical or liposuction procedure is considered experimental and investigational

V. Description

"Cuffing" or "braceleting" (loss of ankle definition) refers to tissue enlargement that ends abruptly at ankles or wrists, sparing hands and feet.

"Stemmer sign" is a clinical finding to diagnose lymphedema. A positive finding would be to be able to pinch the folds of the patient's skin in the dorsum of the foot or hand, associated with lymphedema.

Tumescent or micro-canular liposuction is a technique that involves the injection of tumescent anesthetic (such as diluted lidocaine and epinephrine) and use of vibrating micro-cannula associated with power-assisted liposuction to remove adipose tissues.

Water jet-assisted liposuction is a method of liposuction that uses a pressurized stream of saline to dislodge the fat and more gently loosen and remove the fat cells to treat lipedema.

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Approval History

Effective June 01, 2016, state filing is no longer required per Maryland House Bill HB 798 – Health Insurance – Reporting

Date approved by RUMC	Date of Implementation
05/25/2022	05/25/2022
05/29/2023	05/29/2023
04/25/2024	04/25/2024

*The Regional Utilization Management Committee received delegated authority in 2011 to review and approve designated Utilization Management and Medical Coverage Policies by the Regional Quality Improvement Committee.

Note: Kaiser Permanente Mid-Atlantic States (KPMAS) include referral and authorization criteria to support primary care and specialty care practitioners, as appropriate, in caring for members with selected conditions. Whenever possible, Medical Coverage Policies are evidence-based and may also include expert opinion. Medical Coverage Policies are not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by a practitioner in any particular set of circumstances for an individual member.

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