

EFFECTIVE DATE: 03|01|2026

POLICY LAST REVIEWED: 11|19|2025

OVERVIEW

Bioimpedance, which uses resistance to electrical current to compare the composition of fluid compartments, could be used as a tool to diagnose lymphedema. In usual care, lymphedema is recognized clinically or via limb measurements. However, management via bioelectrical impedance spectroscopy has been proposed as a way to implement early treatment of subclinical lymphedema to potentially reduce its severity.

MEDICAL CRITERIA

Medicare Advantage Plans and Commercial Products

Bioimpedance spectroscopy may be considered medically necessary to confirm a diagnosis of lymphedema in the following clinical scenario:

- The individual is asymptomatic with history of surgery, radiotherapy, or trauma impacting the lymphatic system, and testing would guide decisions regarding early intervention (eg, physical therapy, complete decongestive therapy).

Bioimpedance spectroscopy may be considered medically necessary for surveillance of lymphedema in ONE of the following clinical scenarios:

- The individual is asymptomatic with history of surgery, radiotherapy, or trauma impacting the lymphatic system, and testing would guide decisions regarding early intervention (eg, physical therapy, complete decongestive therapy); OR,
- The individual remains symptomatic following a course of conservative therapy for lymphedema, and testing would guide decisions regarding escalation of therapy (eg, liposuction, surgery)

PRIOR AUTHORIZATION

Prior authorization is required for Medicare Advantage Plans and recommended for Commercial Products.

POLICY STATEMENT

Medicare Advantage Plans

Devices using bioimpedance (bioelectrical impedance spectroscopy) are considered medically necessary when the medical criteria above is met.

Devices using bioimpedance (bioelectrical impedance spectroscopy) are considered not covered when the medical criteria above is not met as the evidence is insufficient to determine the effects of the technology on health outcomes.

Commercial Products

Devices using bioimpedance (bioelectrical impedance spectroscopy) are considered medically necessary when the medical criteria above is met.

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COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable diagnostic benefits/coverage.

BACKGROUND

Lymphedema is an accumulation of fluid due to disruption of lymphatic drainage. It is characterized by nonpitting swelling of an extremity or trunk, and is associated with wound healing impairment, recurrent skin infections, and decreased quality of life. 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). Breast cancer treatment (surgical removal of lymph nodes and radiotherapy) is one of the most common causes of secondary lymphedema. In a systematic review of 72 studies (N=29612 women), DiSipio et al (2013) reported that nearly 20% of breast cancer survivors will develop arm lymphedema. Risk factors with robust evidence for development of lymphedema included extensive surgical procedures (such as axillary lymph node dissection, a higher number of lymph nodes removed, and mastectomy) as well as being overweight or obese.

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

Lymphedema is treated using elevation, compression, and exercise. 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 individuals 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 individuals with more advanced lymphedema after fat deposition and tissue fibrosis has occurred, palliative surgery using reductive techniques such as liposuction may be performed.

Bioimpedance spectroscopy is based on the theory that the level of opposition to the flow of electric current (impedance) through the body is inversely proportional to the volume of fluid in the tissue. In lymphedema, with the accumulation of excess interstitial fluid, tissue impedance decreases.

Bioimpedance has been proposed as a diagnostic test for this condition. In usual care, lymphedema is recognized clinically or via limb measurements. However, management via bioelectrical impedance spectroscopy has been proposed as a way to implement early treatment of subclinical lymphedema to potentially reduce its severity.

A selection of devices that have been cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process to aid in the assessment of lymphedema. Among the FDA-approved bioimpedance devices are SOZO (ImpediMed), MoistureMeterD (Delfin Technologies), and the L-Dex U400 (ImpediMed). The L-Dex U400 was discontinued by its manufacturer in November 2018.

For individuals with known or suspected (ie, clinically diagnosed or symptomatic) lymphedema, clinical input supports that use of bioimpedance spectroscopy is consistent with generally accepted medical practice. Feedback on whether this use results in a clinically meaningful improvement in net health outcome was mixed, with the primary benefit limited to situations where confirmation of maximal benefit from conservative measures such as decongestive therapy can help inform decisions around escalation of therapy. For individuals who are asymptomatic but are at elevated risk for lymphedema due to prior radiation, surgery, or trauma impacting the lymphatic system, clinical input supports that use of bioimpedance spectroscopy is consistent with generally accepted medical practice and that its clinical use is expected to provide a clinically meaningful improvement in net health outcome. Bioimpedance spectroscopy in this high-risk, asymptomatic, surveillance context can prompt early intervention and limit progression to chronic lymphedema with

fibrosis. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

CODING

Medicare Advantage Plans and Commercial Products

The following CPT code(s) is considered medically necessary when the medical criteria above is met:

93702 Bioimpedance spectroscopy (BIS), extracellular fluid analysis for lymphedema assessment(s)

RELATED POLICIES

Prior Authorization of Services, Treatments or Procedures

PUBLISHED

Provider Update, January 2026

Provider Update, May 2025

Provider Update, May 2024

Provider Update, April 2023

Provider Update, April 2022

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