

## Electrical Bioimpedance

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[Effective Date](#) 3/2008  
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[Coverage Policy](#) Medical 118  
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**Member-specific benefits take precedence over medical policy and benefits may vary across plans. Refer to the individual's benefit plan for details <sup>\*</sup>.**

### Purpose:

This policy addresses the medical necessity of - Electrical Bioimpedance.

### Description & Definitions:

Electrical bioimpedance is a noninvasive measurement tool designed to measure cardiac output. It uses electrical current to measure the opposition to the current's flow through tissues.

Impedance plethysmography is a noninvasive way to measure the volume of blood flow resistance by using low level electrical currents.

Spectroscopy is a noninvasive way to measure the volume of fluid in various parts of the body using low level electrical currents.

### Criteria:

Electrical Bioimpedance is considered not medically necessary for any indication.

### Coding:

Medically necessary with criteria:

Coding	Description
	None

Considered Not Medically Necessary:

Coding	Description
93701	Bioimpedance-derived physiologic cardiovascular analysis

93702	Bioimpedance spectroscopy (BIS), extracellular fluid analysis for lymphedema assessment(s)
0358T	Bioelectrical impedance analysis whole body composition assessment, with interpretation and report

U.S. Food and Drug Administration (FDA) - approved only products only.

## Document History:

### Revised Dates:

- 2021: November
- 2020: November
- 2015: March
- 2013: March
- 2012: March
- 2010: March

### Reviewed Dates:

- 2022: September
- 2019: November
- 2018: August
- 2017: December
- 2016: March
- 2014: March
- 2011: March
- 2009: March

### Effective Date:

- March 2008

## References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

2021 Update to the 2017 ACC Expert Consensus Decision Pathway for Optimization of Heart Failure Treatment: Answers to 10 Pivotal Issues About Heart Failure with Reduced Ejection Fraction. (2021, Feb). Retrieved Aug 22, 2022, from American College of Cardiology (ACC): <https://www.jacc.org/doi/epdf/10.1016/j.jacc.2020.11.022>

(2022). Retrieved Aug 22, 2022, from Literature Search:

[https://www.google.com/search?q=impedance+plethysmography+definition&safe=strict&rlz=1C1GCEA\\_enUS1019US1019&biw=1386&bih=708&ei=y58DY8-xHfK3qtsPze2CuA8&oq=Impedance+plethysmography&gs\\_lcp=Cgdnd3Mtd2I6EAEYAjIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgU](https://www.google.com/search?q=impedance+plethysmography+definition&safe=strict&rlz=1C1GCEA_enUS1019US1019&biw=1386&bih=708&ei=y58DY8-xHfK3qtsPze2CuA8&oq=Impedance+plethysmography&gs_lcp=Cgdnd3Mtd2I6EAEYAjIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgU)

21CFR PART 870.2770 Impedance plethysmograph. (2022, Mar 29). Retrieved Aug 22, 2022, from FDA: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?fr=870.2770>

Bioelectrical Impedance (Bioimpedance) Analysis for Assessment of Lymphedema. (22, Aug 18). Retrieved Aug 22, 2022, from Hayes 2: <https://evidence.hayesinc.com/report/dir.bioelectrical1879>

Electrical Bioimpedance For The Measurement Of Cardiac Output - ARCHIVED Nov 12, 2008. (n.d.). Retrieved Aug 22, 2022, from HAYES: <https://evidence.hayesinc.com/report/dir.elec0006>

Electrical Bioimpedance, Measurement of Cardiac Output (A-0400). (2022). Retrieved Aug 22, 2022, from MCG 26th Edition: <https://careweb.careguidelines.com/ed26/index.html>

National Coverage Determination (NCD) Cardiac Output Monitoring by Thoracic Electrical BIOIMPEDANCE (TEB) 20.16. (2006, Nov 24). Retrieved Aug 22, 2022, from Centers for Medicare and Medicaid Services: <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=267&ncdver=3&keyword=Bioimpedance&keywordType=starts&areald=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1>

Novel tools for hemodynamic monitoring in critically ill patients with shock. (2020, Sept 28). Retrieved Aug 22, 2022, from UpToDate: [https://www.uptodate.com/contents/novel-tools-for-hemodynamic-monitoring-in-critically-ill-patients-with-shock?search=Electrical%20bioimpedance&sectionRank=1&usage\\_type=default&anchor=H1190957363&source=machineLearning&selectedTitle=1~10&display\\_rank=1#H1](https://www.uptodate.com/contents/novel-tools-for-hemodynamic-monitoring-in-critically-ill-patients-with-shock?search=Electrical%20bioimpedance&sectionRank=1&usage_type=default&anchor=H1190957363&source=machineLearning&selectedTitle=1~10&display_rank=1#H1)

Procedure Fee Files & CPT Codes. (2022). Retrieved Aug 22, 2022, from Department of Medical Assistance Services: <https://www.dmas.virginia.gov/for-providers/rates-and-rate-setting/procedure-fee-files-cpt-codes/>

### **Special Notes: \***

Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving, and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.

Services mean both medical and behavioral health (mental health) services and supplies unless We specifically tell You otherwise. We do not cover any services that are not listed in the Covered Services section unless required to be covered under state or federal laws and regulations. We do not cover any services that are not Medically Necessary. We sometimes give examples of specific services that are not covered but that does not mean that other similar services are covered. Some services are covered only if We authorize them. When We say You or Your We mean You and any of Your family members covered under the Plan. Call Member Services if You have questions.

### **Keywords:**

SHP Electrical Bioimpedance, SHP Medical 118, atrioventricular sequential pacemaker, continuous inotropic therapy, terminal congestive heart failure, heart transplant rejection, acute dyspnea, Thoracic electrical BIOIMPEDANCE, TEB, Impedance plethysmography, bioimpedance spectroscopy, BIS, Impedance cardiography, transthoracic bioimpedance