# SHP Electrical Bioimpedance

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**MCG Health**
Ambulatory Care
25th Edition

Link to Codes



## Coverage

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See the appropriate benefit document for specific coverage determination. Member specific benefits take precedence over medical policy.

## Application to Products

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Policy is applicable to all Plans.

Optima Virginia Medicaid Plans pays 93701 Bioimpedance-derived physiologic cardiovascular analysis upon request.

Not covered for Optima Commercial Plans

## Authorization Requirements

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Pre-certification by the Plan is required.

## Description of Item or Service

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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.

## Exceptions and Limitations

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- There is insufficient scientific evidence to support the medical necessity of Thoracic Electrical Bioimpedance (TEB) for Optima Medicare Plans as it is not shown to improve health outcomes upon technology review for following:
  - Individual with proven or suspected disease involving severe regurgitation of aorta
  - Individual with minute ventilation sensor function pacemakers, as device may adversely affect functioning of this particular type of pacemaker
  - Use during cardiac bypass surgery
  - Management of all forms of hypertension (with exception of particular cases of drug-resistant hypertension defined as failure to achieve goal blood pressure in patients who are adhering to full doses of an appropriate 3-drug regimen that includes a diuretic)
  - Bioimpedance spectroscopy (BIS), extracellular fluid analysis for lymphedema assessment(s)
- There is insufficient scientific evidence to support the medical necessity of this service as it is not shown to improve health outcomes upon technology review for Optima Commercial Plans.
- For Optima Medicare, there is insufficient scientific evidence to support the medical necessity of electrical bioimpedance for uses other than those listed in the clinical indications for procedure section.

## Clinical Indications for Procedure

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- Electrical Bioimpedance is considered medically necessary for **ALL** of the following:
  - Individual has Optima Medicare Plan and indications of **1 or more** of the following:
    - Differentiation of cardiogenic from pulmonary causes of acute dyspnea with **ALL** of the following:
      - When physician history, physical examination, and standard assessment tools provide insufficient information
      - The treating physician has determined that electrical bioimpedance hemodynamic data are necessary for appropriate management of the individual
    - Optimization of atrioventricular interval for individuals with an atrioventricular sequential cardiac pacemaker with **ALL** of the following:
      - When physician history, physical examination, and standard assessment tools provide insufficient information
      - The treating physician has determined that electrical bioimpedance hemodynamic data are necessary for appropriate management of the individual
    - Monitoring of continuous inotropic therapy for individuals with terminal congestive heart failure with **1 or more** of the following:
      - Individual has chosen to die with comfort at home
      - Individual is waiting at home for a heart transplant
    - Evaluation for rejection in individuals with a heart transplant as a predetermined alternative to a myocardial biopsy
    - Optimization of fluid management in individuals with congestive heart failure with **ALL** of the following:
      - When physician history, physical examination, and standard assessment tools provide insufficient information

- The treating physician has determined that electrical bioimpedance hemodynamic data are necessary for appropriate management of the individual

- Electrical Bioimpedance is **NOT COVERED** for **ANY** of the following:
  - Individual with proven or suspected disease involving severe regurgitation of aorta
  - Individual with minute ventilation sensor function pacemakers, as device may adversely affect functioning of this particular type of pacemaker
  - Use during cardiac bypass surgery
  - Management of all forms of hypertension (with exception of particular cases of drug-resistant hypertension defined as failure to achieve goal blood pressure in patients who are adhering to full doses of an appropriate 3-drug regimen that includes a diuretic)
  - Bioimpedance spectroscopy (BIS), extracellular fluid analysis for lymphedema assessment(s)

## Document History

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- Revised Dates:
  - 2022: September
  - 2021: November
  - 2020: November
  - 2015: March
  - 2013: March
  - 2012: March
  - 2010: March
- Reviewed Dates:
  - 2019: November
  - 2018: August
  - 2017: December
  - 2016: March
  - 2014: March
  - 2011: March
  - 2009: March
- Effective Date: March 2008

## Coding Information

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- CPT/HCPCS codes covered if policy criteria is met for Optima Medicare only. Code pays upon request for Optima Virginia Medicaid Plans:
  - CPT 93701 - Bioimpedance-derived physiologic cardiovascular analysis
- CPT/HCPCS codes considered not medically necessary per this Policy for all Plans:
  - CPT 93702 - Bioimpedance spectroscopy (BIS), extracellular fluid analysis for lymphedema assessment(s)
  - 0358T - Bioelectrical impedance analysis whole body composition assessment, with interpretation and report

## References

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**References used include but are not limited to the following:**

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=Cgdnd3Mtd2l6EAEYAjIFCAAQgAQyBQgAEIAEMgUIABCABDIFCAAQgAQyBQgAEIAEMgU

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

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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&areaId=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

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/

## Codes

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**CPT® : 93701, 93702**

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