

Pectus Surgery and Devices

Table of Content

Purpose
Description & Definitions
Criteria
Coding
Document History
References
Special Notes
Keywords

Effective Date 2/2010
Next Review Date 1/9/2024
Coverage Policy Surgical 05
Version 5

All requests for authorization for the services described by this medical policy will be reviewed per Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*.

Purpose:

This policy addresses Pectus Surgery and associated devices.

Description & Definitions:

Pectus excavatum, or funnel chest, and **pectus carinatum**, known as pigeon breast, is a congenital defect known as anomalies of the anterior chest wall characterized by a deep depression of the sternum. Surgical procedures and devices exist to correct the anomaly.

Criteria:

Repair of pectus excavatum or pectus carinatum is considered medical necessary for **1 or more of the following**:

- Repair of pectus excavatum by any technique is considered medically necessary for **1 or more of the following**:
 - Restrictive lung disease as demonstrated by a total lung capacity less than 80 percent of predicted value
 - Cardiac compression as demonstrated by **1 or more of the following**:
 - Computed tomography patients with a Haller index (pectus severity index) of greater than or equal to 3.2
 - Magnetic resonance imaging
 - Ultrasound of the chest
- Repair of pectus carinatum by surgical repair or orthotic compression bracing is considered medically necessary with **1 or more of the following**:
 - Documentation of cardiopulmonary compromise in severe forms of pectus carinatum with **All of the following**:
 - Haller index (pectus severity index) of less than or equal to 2.0
 - Individual must meet criteria of **1 or more of the following**:
 - Pulmonary function tests to document obstructive abnormalities

- Chest x-ray demonstrating an increased anteroposterior diameter of the chest wall with emphysematous-appearing lungs and narrow cardiac shadow
- Echocardiography demonstrating deformity of the cardiac silhouette resulting in reduced cardiac function (Malposition of the cardiac silhouette in the absence of study demonstrating reduced cardiac function is not, of itself, a function deficit)

Pectus Surgery and Devices are considered **not medically necessary** for any use other than those indicated in clinical criteria, to include but not limited to:

- Suit or vest therapy including, but not limited to the Benik vest, Stabilizing Pressure Input Orthosis (SPIO), Adeli Suit, Penguin Suit, Polish Suit, Therapy Suit, Therasuit, and TheraTogs
- Repair of pectus excavatum or pectus carinatum by any technique is cosmetic and not a covered benefit when it is done to improve appearance, in the absence of a physiologic functional impairment.
- Dynamic compression bracing for members who require more than 7.5 psi compression to achieve correction is cosmetic and not a covered benefit.
- Dynamic compression bracing for mild or moderate pectus carinatum is cosmetic and not a covered benefit.
- Vacuum bell, sternal magnet, silicone prosthetic inserts and physical therapy are considered investigational and not medically necessary for pectus excavatum.

Coding:

Medically necessary with criteria:

Coding	Description
21740	Reconstructive repair of pectus excavatum or carinatum; open
21742	Reconstructive repair of pectus excavatum or carinatum; minimally invasive approach (Nuss procedure), without thoracoscopy
21743	Reconstructive repair of pectus excavatum or carinatum; minimally invasive approach (Nuss procedure), with thoracoscopy
L9900	Orthotic and prosthetic supply, accessory, and/or service component of another HCPCS L code

Considered Not Medically Necessary:

Coding	Description
	None

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

Document History:

Revised Dates:

- 2020: January
- 2016: February
- 2015: October
- 2013: February, June

Reviewed Dates:

- 2024: January
- 2023: January
- 2022: January
- 2021: January
- 2018: August
- 2017: November
- 2015: February
- 2014: February

- 2012: February
- 2011: February

Effective Date:

- February 2010

References:

Including but not limited to: Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

(2023). Retrieved Dec 2023, from MCG 27th Edition: <https://careweb.careguidelines.com/ed27/index.html>

(2023). Retrieved Dec 2023, from Centers for Medicare and Medicaid Services: <https://www.cms.gov/medicare-coverage-database/search-results.aspx?keyword=pectus+excavatum&keywordType=starts&areald=all&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all>

(2023). Retrieved Dec 2023, from Virginia Department of Medical Assistance Services (DMAS): <https://vamedicaid.dmas.virginia.gov/search#gsc.tab=0&gsc.q=Pectus%20excavatum%20&gsc.sort=>

Code of Federal Regulations Title 21 CFR Sec. 888.3030 Single/multiple component metallic bone fixation appliances and accessories. (2023, Oct 17). Retrieved Dec 2023, from FDA: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?fr=888.3030>

Nuss Procedure For Pectus Excavatum In Children. (2012). Retrieved Dec 2023, from Hayes: <https://evidence.hayesinc.com/report/htb.nuss2001>

Placement of pectus bar for pectus excavatum (also known as MIRPE or the Nuss procedure). (2009). Retrieved 2023, from National Institute for Clinical Excellence (NICE): <https://www.nice.org.uk/guidance/ipg310>

Surgical Correction of Chest Wall Deformities . (2023). Retrieved Dec 2023, from Pectus Clinic: <https://www.pectusclinic.com/>

Special Notes: *

This medical policy express Sentara Health Plan's determination of medically necessity of services, and they are based upon a review of currently available clinical information. These policies are used when no specific guidelines for coverage are provided by the Department of Medical Assistance Services of Virginia (DMAS). Medical Policies may be superseded by state Medicaid Plan guidelines. Medical policies are not a substitute for clinical judgment or for any prior authorization requirements of the health plan. These policies are not an explanation of benefits.

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.

The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) covers services, products, or procedures for children, if those items are determined to be medically necessary to "correct or ameliorate" (make better) a defect, physical or mental illness, or condition (health problem) identified through routine medical screening or examination, regardless of whether coverage for the same service or support is an optional or limited service under the state plan. Children enrolled in the FAMIS Program are not eligible for all EPSDT treatment services. All requests for authorization for the services described by this medical policy will be reviewed per EPSDT guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. *Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*

Keywords:

Pectus, excavatum, sternum, brace, orthotic, carinatum, Haller index, pectus severity index, SHP Pectus Surgery and Devices, SHP Surgical 05, cardiopulmonary compromise, cardiac compression, Suit therapy, vest therapy, Benik vest, Stabilizing Pressure Input Orthosis, SPIO, Adeli Suit, Penguin Suit, Polish Suit, Therapy Suit, Therasuit, TheraTogs, Vacuum bell, sternal magnet, silicone prosthetic inserts, Nuss Procedure, Pectus support bar, Pectus Excavatum Strut