Pectus Deformity Repair

Guideline Number: MMG101.M
Effective Date: July 1, 2020

Instructions for Use

Table of Contents Page

Related Medical Management Guideline

- Cosmetic and Reconstructive Procedures

Related Benefit Interpretation Policy

- Cosmetic, Reconstructive, or Plastic Surgery

Coverage Rationale

Indications for Coverage

Surgical repair of Pectus Excavatum is considered reconstructive and medically necessary when the following criteria have been met:

- Imaging studies confirm Haller Index greater than 3.25; and
- A Functional Impairment is defined in physician office notes; and
  - For restrictive lung capacity the total lung capacity is documented in the physician office notes as <80% of the predicted value; or
  - There is cardiac compromise as demonstrated by decreased cardiac output on the echocardiogram; or
  - There is objective evidence of exercise intolerance as documented by cardiopulmonary exercise testing that is below the predicted values.

Surgical repair of Pectus Carinatum may be considered reconstructive and medically necessary.
Requests for coverage of repair of Pectus Carinatum will be reviewed by a UnitedHealthcare Medical Director on a case-by-case basis.

Coverage Limitations and Exclusions

Some states require benefit coverage for services that UnitedHealthcare considers Cosmetic Services and Surgery, such as repair of external Congenital Defects in the absence of a Functional or Physical Impairment. Please refer to member specific benefit plan document.

- Cosmetic Services and Surgery are excluded from coverage. Procedures that correct an anatomical Congenital Defect without improving or restoring physiologic function are considered Cosmetic Services and Surgery. Refer to the Definitions section.
- Procedures that do not meet the reconstructive criteria in the Indications for Coverage section.

Documentation Requirements

Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The documentation requirements outlined below are used to assess whether the member meets the clinical criteria for coverage but do not guarantee coverage of the service requested.

Required Clinical Information
Pectus Excavatum

Medical notes documenting all of the following:
• Results of imaging studies (CT scan confirming Haller Index greater than 3.25)
• Documentation of functional limitation/impairment
• Results of:
  ○ Pulmonary function test (confirming restrictive lung capacity) the total lung capacity is documented as <80% of the predicted value; or
  ○ One of the following:
  ▪ An echocardiogram (Ejection Fraction) confirming by decreased cardiac output
  ▪ Stress test demonstrating cardiopulmonary function that is below the predicted values
• Physician treatment plan

Pectus Carinatum
Medical notes documenting all of the following: • Documentation of functional limitation/impairment • Physician treatment plan

Definitions

The following definitions may not apply to all plans. Refer to the member specific benefit plan document for applicable definitions.

Congenital Defect (California Only): A condition present at birth.

Cosmetic Procedures (California only): Procedures or services that are performed to alter or reshape normal structures of the body in order to improve appearance.

Cosmetic Services and Surgery (OK, OR, TX and WA Only): Cosmetic surgery and cosmetic services are defined as surgery and services performed to alter or reshape normal structures of the body in order to improve appearance. Drugs, devices and procedures related to cosmetic surgery or cosmetic services are not covered. Surgeries or services that would ordinarily be classified as cosmetic will not be reclassified as reconstructive, based on a Member's dissatisfaction with his or her appearance, as influenced by that Member's underlying psychological makeup or psychiatric condition.

Functional or Physical or Physiological Impairment: A Physical or Functional or Physiological Impairment causes deviation from the normal function of a tissue or organ. These results in a significantly limited, impaired, or delayed capacity to move, coordinate actions, or perform physical activities and are exhibited by difficulties in one or more of the following areas: physical and motor tasks; independent movement; performing basic life functions.

Haller Index: The Haller Index, or pectus severity index, is the most commonly used scale for determining the severity of chest wall deformities. Computerized tomography (CT) is used to determine the index, which is obtained by dividing the inner width of the chest at its widest point by the distance between the posterior surface of the sternum and the anterior surface of the spine. This measurement uses the deepest level of the inner sternal depression to the anterior aspect of the vertebral body. A normal chest has a Haller Index of about 2.5.

Pectus Carinatum: A protrusion of the chest over the sternum. It is extremely uncommon that Pectus Carinatum will cause a functional or physiological deficit. Pectus Carinatum is not a Congenital Anomaly; it is a developmental condition of the cartilage that generally occurs during an adolescent's growth spurt.

Pectus Excavatum: Posterior depression of the sternum and adjacent costal.

Reconstructive Surgery: Reconstructive surgery is covered to correct or repair abnormal structures of the body caused by congenital defects, developmental abnormalities, trauma, infection, tumors or disease. The purpose of reconstructive surgery is to correct abnormal structures of the body to improve function or create a normal appearance to the extent possible.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CPT Code	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

Diagnosis Code	Description
Q67.6	Pectus excavatum
Q67.7	Pectus carinatum

References

Goretsky M, Kelly R, Croitoru D, et al; Chest wall anomalies: pectus excavatum and pectus carinatum; Adolescent Med Clinic; 2004 Oct; 15 (3): 455-71.

Jaroszewksi, D., Notrica, D., McMahon, L., Steidely, D. E., Deschamps, C; (2010); Current Management of Pectus Excavatum; Journal of the American Board of Family Medicine; March-April 2010; 23 (2), 230-239.

Guideline History/Revision Information

Date	Summary of Changes
01/01/2021	Template Update • Reformatted policy; transferred content to new template
07/01/2020	• Routine review; no change to coverage guidelines • Archived previous policy version MMG101.L

Instructions for Use

This Medical Management Guideline provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard plan. In the event of a conflict, the member specific benefit plan document governs. Before using this guideline, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Management Guideline is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. UnitedHealthcare West Medical Management Guidelines are intended to be used in connection

with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Member benefit coverage and limitations may vary based on the member's benefit plan Health Plan coverage provided by or through UnitedHealthcare of California, UnitedHealthcare Benefits Plan of California, UnitedHealthcare of Oklahoma, Inc., UnitedHealthcare of Oregon, Inc., UnitedHealthcare Benefits of Texas, Inc., or UnitedHealthcare of Washington, Inc.