Pectus Deformity Repair

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Coverage Rationale

Indications for Coverage

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

- Imaging studies confirm Haller Index greater than 3.25; and
- A Functional Impairment 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

UnitedHealthcare excludes Cosmetic Procedures from coverage including but not limited to the following:

- Procedures that correct an anatomical Congenital Anomaly without improving or restoring physiologic function are considered Cosmetic Procedures. The fact that a Covered Person may suffer psychological consequences or socially avoidant behavior as a result of an Injury, Sickness or Congenital Anomaly does not classify surgery (or other procedures done to relieve such consequences or behavior) as a Reconstructive Procedure.
- 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.
CPT Codes* | Required Clinical Information
--- | ---
Pectus Deformity Repair
| 21740 | Pectus Excavatum
| 21742 | Medical notes documenting all of the following:
| 21743 | - 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
| 21743 | Pectus Carinatum
|      | Medical notes documenting all of the following:
|      | - Documentation of functional limitation/impairment
|      | Physician treatment plan

*For code descriptions, see the Applicable Codes section.

Definitions

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

**Congenital Anomaly**: A physical developmental defect that is present at the time of birth, and that is identified within the first twelve months of birth.

**Cosmetic Procedures**: Procedures or services that change or improve appearance without significantly improving physiological function.

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

**Functional or Physical or Physiological Impairment**: A Functional or Physical or Physiological impairment causes deviation from the normal function of a tissue or organ. This results in a significantly limited, impaired, or delayed capacity to move, coordinate actions, or perform physical activities and is 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 adolescents growth spurt.

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

**Reconstructive Procedures**: Reconstructive Procedures when the primary purpose of the procedure is either of the following:

- Treatment of a medical condition
- Improvement or restoration of physiologic function
Reconstructive Procedures include surgery or other procedures which are related to an Injury, Sickness or Congenital Anomaly. The primary result of the procedure is not a changed or improved physical appearance.

Procedures that correct an anatomical Congenital Anomaly without improving or restoring physiologic function are considered Cosmetic Procedures. The fact that you may suffer psychological consequences or socially avoidant behavior as a result of an Injury, Sickness or Congenital Anomaly does not classify surgery (or other procedures done to relieve such consequences or behavior) as a reconstructive procedure.

**Reconstructive Procedures (California only):** Reconstructive Procedures to correct or repair abnormal structures of the body caused by congenital defects, developmental abnormalities, trauma, infection, tumors, or disease to do either of the following:
- To improve function
- To create a normal appearance, to the extent possible

Reconstructive Procedures include surgery or other procedures which are associated with a health condition. The primary result of the procedure is not a changed or improved physical appearance for cosmetic purposes only, but rather to improve function and/or to create a normal appearance, to the extent possible.

Covered Health Care Services include dental or orthodontic services that are an integral part of reconstructive surgery for cleft palate procedures.

For the purposes of this section, "cleft palate" means a condition that may include cleft palate, cleft lip, or other craniofacial anomalies associated with cleft palate.

**Sickness:** Physical illness, disease or Pregnancy. The term Sickness includes Mental Illness or substance-related and addictive disorders, regardless of the cause or origin of the Mental Illness or substance-related and addictive disorder.

### 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.

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>21740</td>
<td>Reconstructive repair of pectus excavatum or carinatum; open</td>
</tr>
<tr>
<td>21742</td>
<td>Reconstructive repair of pectus excavatum or carinatum; minimally invasive approach (Nuss procedure), without thoracoscopy</td>
</tr>
<tr>
<td>21743</td>
<td>Reconstructive repair of pectus excavatum or carinatum; minimally invasive approach (Nuss procedure), with thoracoscopy</td>
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<table>
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<tr>
<th>Diagnosis Code</th>
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<tr>
<td>Q67.6</td>
<td>Pectus excavatum</td>
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<tr>
<td>Q67.7</td>
<td>Pectus carinatum</td>
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### References


Guideline History/Revision Information

<table>
<thead>
<tr>
<th>Date</th>
<th>Summary of Changes</th>
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<tbody>
<tr>
<td>08/01/2020</td>
<td>Template Update</td>
</tr>
<tr>
<td></td>
<td>- Reformatted policy; transferred content to new template</td>
</tr>
<tr>
<td>07/01/2020</td>
<td>- Routine review; no change to coverage guidelines</td>
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<tr>
<td></td>
<td>- Archived previous policy version CDG.015.11</td>
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Instructions for Use

This Coverage Determination 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 Coverage Determination Guideline is provided for informational purposes. It does not constitute medical advice.

This Coverage Determination Guideline may also be applied to Medicare Advantage plans in certain instances. In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence (Medicare IOM Pub. No. 100-16, Ch. 4, §90.5).

UnitedHealthcare may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. UnitedHealthcare Coverage Determination 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.

For self-funded plans with SPD language other than fully-insured Generic COC language, please refer to the member specific benefit plan document for coverage.