

## **PECTUS DEFORMITY REPAIR**

**Guideline Number:** CDG.015.01  
**Effective Date:** October 1, 2013

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### **INSTRUCTIONS FOR USE**

*This Coverage Determination Guideline provides assistance in interpreting certain standard UnitedHealthcare benefit plans. When deciding coverage, the enrollee specific document must be referenced. The terms of an enrollee's document (e.g., Certificates of Coverage (COCs), Schedules of Benefits (SOBs), or Summary Plan Descriptions (SPDs), and Medicaid State Contracts) may differ greatly from the standard benefit plans upon which this guideline is based. In the event of a conflict, the enrollee's specific benefit document supersedes these guidelines. All reviewers must first identify enrollee eligibility, any federal or state regulatory requirements and the plan benefit coverage prior to use of this guideline. Other coverage determination guidelines and medical policies may apply. UnitedHealthcare reserves the right, in its sole discretion, to modify its coverage determination guidelines and medical policies as necessary. This Coverage Determination Guideline 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. The MCG™ Care 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.*

### **COVERAGE RATIONALE**

#### **Plan Document Language**

Before using this guideline, please check enrollee's specific plan document and any federal state mandates or state contract, if applicable.

#### **Essential Health Benefits for Individual and Small Group:**

For plan years beginning on or after January 1, 2014, the Affordable Care Act of 2010 (ACA) requires fully insured non-grandfathered individual and small group plans (inside and outside of Exchanges) to provide coverage for ten categories of Essential Health Benefits ("EHBs"). Large group plans (both self-funded and fully insured), and small group ASO plans, are not subject to the requirement to offer coverage for EHBs. However, if such plans choose to provide coverage for benefits which are deemed EHBs (such as maternity benefits), the ACA requires all dollar limits on those benefits to be removed on all Grandfathered and Non-Grandfathered plans. The determination of which benefits constitute EHBs is made on a state by state basis. As such, when using this guideline, it is important to refer to the enrollee's specific plan document to determine benefit coverage.

## **Indications for Coverage**

Some states require benefit coverage for services that UnitedHealthcare considers cosmetic procedures, such as repair of external congenital anomalies in the absence of a functional impairment. Please refer to enrollee's plan specific documents.

### **Criteria for a Coverage Determination that Surgery is Reconstructive and/or Medically Necessary:**

#### **Pectus Excavatum**

1. Imaging studies confirm Haller index greater than 3.25; **AND**
2. The functional impairment is defined by one or more of the following;
  - i. For restrictive lung capacity the total lung capacity is documented in the physician current office notes as <80% of the predicted value; **OR**
  - ii. There is a right ventricular compression.
    - Cardiac compression is demonstrated by CT, MRI or ultrasound of the chest (Cardiac displacement without compression is not a functional impairment); **OR**
  - iii. There is objective evidence of exercise intolerance as documented by:
    - Cardiopulmonary exercise testing that is below the predicted values.

**OR**

    - Exercise pulmonary function tests that are below the predicted values.

#### **Additional Information:**

- *Right ventricular compression may occur; if such compression causes cardiac symptoms, such symptoms may require repair of the pectus deformity. The right ventricle is anatomically located just behind the sternum and is typically displaced to the left by a pectus excavatum*
- *Patients with pectus excavatum who have a comorbid diagnosis of asthma should have optimal treatment for their asthma so that abnormal pulmonary function studies are not incorrectly attributed to the pectus deformity.*
- *The significance of structural mitral valve abnormalities, if any, in persons with pectus excavatum, is unclear. Requests for repair of pectus excavatum for mitral valve abnormalities must be reviewed by a UnitedHealth Care medical director.*

#### **Pectus Carinatum**

It is extremely uncommon that pectus carinatum will cause a functional/physiological deficit. Requests for coverage of repair of pectus carinatum will be reviewed by a UHC Medical Director on a case by case basis

## **Coverage Limitations and Exclusions**

Some states require benefit coverage for services that UnitedHealthcare considers cosmetic procedures, such as repair of external congenital anomalies in the absence of a functional/physical impairment. Please refer to enrollee's plan specific documents.

1. Cosmetic Procedures are excluded from coverage. 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 functional/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.
2. Any procedure that does not meet the reconstructive criteria above in the Indications for Coverage section

<p><b>For ASO plans with SPD language other than fully-insured Generic COC language</b> Please refer to the enrollee's plan specific SPD for coverage.</p>
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## **DEFINITIONS**

**Congenital Anomaly:** a physical developmental defect that is present at birth, and is identified within the first twelve months of birth. **(2001 FI Generic COC)**

A physical developmental defect that is present at the time of birth, and that is identified within the first twelve months of birth. **(2007 through 2011 Generic COC)**

**Congenital Anomaly (California Only):** a physical developmental defect that is present at birth

**Cosmetic Procedures:** Cosmetic Procedures are excluded from coverage. 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. **(2001 FI Generic COC)**

Procedures or services that change or improve appearance without significantly improving physiological function, as determined by UHC **(2007 through 2011 Generic COC).**

**Cosmetic Procedures (California Only):** procedures or services are performed to alter or reshape normal structures of the body in order to improve the Covered Person's appearance

**Functional/Physical Impairment:** A physical/functional 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:** Pigeon breast is another chest wall deformity characterized by an anterior protrusion of the sternum and costal cartilages. This deformity often produces a rigid chest.

**Pectus Excavatum:** Funnel chest, is a congenital abnormality of the chest wall in which deformed cartilages result in a concavity of the sternum

### **Reconstructive Procedures**

Surgery or other procedures which are associated with an Injury, Sickness or Congenital Anomaly, performed when a physical impairment exists and when the primary purpose of the procedure is to improve or restore physiologic functions. The fact that physical appearance may change or improve as a result of a reconstructive procedure does not classify such surgery as a Cosmetic Procedure when a physical impairment exists, and the surgery restores or improves function. **(2001 Generic COC)**

Reconstructive procedures when the primary purpose of the procedure is either to treat a medical condition or to improve or restore physiologic function. Reconstructive procedures include surgery or other procedures which are associated with 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 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. **(2007- 2011 Generic COC)**

**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. Reconstructive procedures include surgery or other procedures which are associated with an Injury, Sickness or Congenital Anomaly. 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.

**Sickness** - physical illness, disease or Pregnancy. The term Sickness as used in this *Certificate* does not include mental illness or substance abuse, regardless of the cause or origin of the mental illness or substance abuse.

### **APPLICABLE CODES**

The Current Procedural Terminology (CPT<sup>®</sup>) codes and HCPCS codes listed in this guideline are for reference purposes only. Listing of a service code in this guideline does not imply that the service described by this code is a covered or non-covered health service. Coverage is determined by the enrollee specific benefit 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 claims payment. Other policies and coverage determination guidelines may apply.

CPT<sup>®</sup> is a registered trademark of the American Medical Association.

Limited to specific procedure codes?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CPT <sup>®</sup> Procedure 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

Limited to specific diagnosis codes?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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ICD-9 Diagnosis Code	Description
754.81	Pectus excavatum
754.82	Pectus carinatum

#### ICD-10 Codes (Preview Draft)

In preparation for the transition from ICD-9 to ICD-10 medical coding on **October 1, 2014\***, a sample listing of the ICD-10 CM and/or ICD-10 PCS codes associated with this policy has been provided below for your reference. This list of codes may not be all inclusive and will be updated to reflect any applicable revisions to the ICD-10 code set and/or clinical guidelines outlined in this policy. *\*The effective date for ICD-10 code set implementation is subject to change.*

ICD-10 Diagnosis Code	Description
Q67.6	Pectus excavatum
Q67.7	Pectus carinatum

Limited to place of service (POS)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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Limited to specific provider type?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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Limited to specific revenue codes?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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#### REFERENCES

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2. Boehm RA, Muensterer OJ, Till H. Comparing minimally invasive funnel chest repair versus the conventional technique: an outcome analysis in children. *Plast Reconstr Surg.* 2004 Sep 1;114(3):668-73; discussion 674-5.
3. Coln E, Carrasco J, Coln D. Demonstrating relief of cardiac compression with the Nuss minimally invasive repair for pectus excavatum. *J Pediatr Surg.* 2006 Apr;41(4):683-6; discussion 683-6.
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#### **GUIDELINE HISTORY/REVISION INFORMATION**

<b>Date</b>	<b>Action/Description</b>
12/01/2010	Original Effective Date.
05/01/2011	New guideline effective 06/01/11
05/05/2011	Added definition of "Haller Index"
09/01/2011	Updated footer. Updated Reconstructive Procedures definition
10/01/2011	Revision to California Only Statement pg. 3
11/01/2011	Modified California definition for Reconstructive Procedures.
10/01/2012	Annual Review: Added paragraph to instructions for use; Revised paragraph for Documentation Section I; added "All required documentation must be submitted and approved through the standard process" bottom of documentation and updated footer date. Added ICD-10 Diagnosis Codes. New Template Updated applicable products on page 1.
10/01/2013	Removed documentation requirements.  Updated Instructions for Use.  Under #2 iii added the following. <ul style="list-style-type: none"> <li>• Cardiopulmonary exercise testing that is below the predicted values.</li> </ul> OR <ul style="list-style-type: none"> <li>• Exercise pulmonary function tests that are below the predicted values.</li> </ul> Added #17 in references.
11/01/2013	Plan Document Language section: <ul style="list-style-type: none"> <li>• Added Essential Health Benefits paragraph.</li> </ul>
04/11/2014	<ul style="list-style-type: none"> <li>• Reformatted table of contents (no change to policy content/coverage determination guidelines): <ul style="list-style-type: none"> <li>○ Added new policy guideline number assignment for document archive management purposes; guideline number previously listed as CDG-A-030</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Removed applicable products grid (<i>Note: Policy document no longer applies to Community Plan membership; Community Plan specific policy documents now available</i>)</li> </ul>
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