ORTHOSIS FOR CORRECTION OF PECTUS CARINATUM

The purpose of this document is to assist providers enrolled in the Connecticut Medical Assistance Program (CMAP) with the information needed to support a medical necessity determination for the use of an orthosis to correct pectus carinatum. By clarifying the information needed for prior authorization of services, HUSKY Health hopes to facilitate timely review of requests so that individuals obtain the medically necessary care they need as quickly as possible.

Pectus carinatum is a protrusion deformity of the anterior chest wall. There are two main types of pectus carinatum deformity: chondrogladiolar prominence and chondromanubrial prominence.

Chondrogladiolar prominence, is the most common type of deformity where the middle and lower portions of the sternum protrude and arch forward. The costal cartilages are concave and usually symmetrically depressed, accentuating the sternal prominence. Chondromanubrial prominence (pectus arcuatum) is a more complex and substantially less common form of the deformity where the upper portion of the sternum protrudes anteriorly, and the body of the sternum is deviated posteriorly.

Pectus carinatum is typically noted after the 11th birthday and usually worsens during adolescence. Pectus carinatum is primarily a cosmetic concern. When cardiopulmonary function is assessed in patients with pectus carinatum, the findings are generally normal. Pulmonary function tests, chest x-rays and echocardiographs are useful in determining the presence and extent of any cardiopulmonary compromise.

Until recently, the primary treatment for pectus carinatum was surgical reconstruction of the chest wall, however studies suggest that non-operative bracing with a compression orthosis may be an effective, non-invasive treatment modality for mild or moderate forms of the deformity. Bracing is not effective for patients with chondromanubrial prominence (pectus arcuatum).

Note: Requests for surgical correction of pectus carinatum are reviewed using InterQual® criteria in conjunction with the Department of Social Services' (DSS) definition of Medical Necessity.

CLINICAL GUIDELINE

Coverage guidelines for the use of an orthosis to correct **pectus carinatum** are made in accordance with the Department of Social Services (DSS) definition of Medical Necessity. The following criteria are guidelines *only.* Coverage determinations are based on an assessment of the individual and their clinical needs. If the guidelines conflict with the definition of Medical Necessity, the definition of Medical Necessity shall prevail. The guidelines are as follows:

Use of an orthosis to correct pectus carinatum is generally considered medically necessary when the following criteria are met:

1. The costal cartilage has been assessed and found to be flexible; AND

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2. The individual has been evaluated for scoliosis (orthoses to correct pectus carinatum are typically not indicated for individuals with moderate to severe scoliosis); AND
3. The individual is willing to adhere to the recommended bracing protocol (number of hours and length of use) as ordered by the physician; AND
4. There is documented evidence of cardiopulmonary compromise (i.e., dyspnea, fatigue, chest pain, exercise intolerance, wheezing) and/or complications resulting from pectus carinatum.

Use of an orthosis to correct pectus carinatum for all other indications is generally considered not medically necessary but may be considered medically necessary based on an assessment of the individual and their unique clinical needs.

NOTE: EPSDT Special Provision
Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) is a federal Medicaid requirement that requires the Connecticut Medical Assistance Program (CMAP) to cover services, products, or procedures for Medicaid enrollees under 21 years of age where the service or good is medically necessary health care to correct or ameliorate a defect, physical or mental illness, or a condition identified through a screening examination. The applicable definition of medical necessity is set forth in Conn. Gen. Stat. Section 17b-259b (2011) [ref. CMAP Provider Bulletin PB 2011-36].

PROCEDURE
Prior authorization for an orthosis to correct pectus carinatum is required. Coverage determinations will be based upon a review of requested and/or submitted case-specific information.

The following information is needed to review requests for an orthosis to correct pectus carinatum:
1. Fully completed Outpatient Prior Authorization Request Form or fully completed authorization request via on-line web portal; and
2. Signed prescription by a physician, advanced practice registered nurse (APRN), or physician assistant (PA) enrolled in the Connecticut Medical Assistance Program (CMAP) dated within the last twelve (12) months; and
3. A description of the specific bracing protocol (number of hours of required wear per day and planned length of use; and
4. Documentation from the medical record supporting the medical necessity of the orthosis including, but not limited to:
    a. Current symptoms or complaints related to deformity (i.e., dyspnea, fatigue, chest pain, exercise intolerance, wheezing etc.);
    b. Findings of a recent physical exam (within 3 months) to include severity of defect and flexibility of costal cartilage;
    c. Results of any testing related to current symptoms or complaints (i.e., electrocardiogram, echocardiogram, chest x-ray, CT scan, pulmonary function tests); and
    d. Office notes documenting a discussion with patient, where bracing regimen explained and patient verbalized willingness and ability to adhere to regimen;
5. Pricing information (Actual Acquisition Cost (AAC) and breakdown of labor*); and
6. Other information as requested.

*Ref: DSS Pricing Policy for MEDS items available at:
http://www.huskyhealthct.org/providers/policies_procedures.html#

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NOTE: Labor costs for future visits and future modifications will not be included in the initial cost of the orthosis. All future modifications are to be billed using HCPCS code L4205 – Repair of orthotic device, labor component, per 15 minutes. Providers are allowed to bill 2 units for subsequent follow up visits.

EFFECTIVE DATE
This Policy is effective for prior authorization requests for an orthosis to correct pectus carinatum for individuals covered under the HUSKY Health Program beginning August 1, 2017.

LIMITATIONS
N/A

CODES:

Code	Description
L1320	Thoracic, pectus carinatum orthosis, sternal compression, rigid circumferential frame with anterior and posterior rigid pads, custom fabricated
L4205	Repair of orthotic device, labor component, per 15 minutes

DEFINITIONS

1. **HUSKY A**: Connecticut children and their parents or a relative caregiver; and pregnant women may qualify for HUSKY A (also known as Medicaid). Income limits apply.
2. **HUSKY B**: Uninsured children under the age of 19 in higher income households may be eligible for HUSKY B (also known as the Children's Health Insurance Program) depending on their family income level. Family cost-sharing may apply.
3. **HUSKY C**: Connecticut residents who are age 65 or older or residents who are ages 18-64 and who are blind, or have another disability, may qualify for Medicaid coverage under HUSKY C (this includes Medicaid for Employees with Disabilities (MED-Connect), if working). Income and asset limits apply.
4. **HUSKY D**: Connecticut residents who are ages 19-64 without dependent children and who: (1) do not qualify for HUSKY A; (2) do not receive Medicare; and (3) are not pregnant, may qualify for HUSKY D (also known as Medicaid for the Lowest-Income populations).
5. **HUSKY Health Program**: The HUSKY A, HUSKY B, HUSKY C, HUSKY D and HUSKY Limited Benefit programs, collectively.
6. **HUSKY Limited Benefit Program or HUSKY, LBP**: Connecticut's implementation of limited health insurance coverage under Medicaid for individuals with tuberculosis or for family planning purposes and such coverage is substantially less than the full Medicaid coverage.
7. **Medically Necessary or Medical Necessity**: (as defined in Connecticut General Statutes § 17b-259b) Those health services required to prevent, identify, diagnose, treat, rehabilitate or ameliorate an individual's medical condition, including mental illness, or its effects, in order to attain or maintain the individual's achievable health and independent functioning provided such services are: (1) Consistent with generally-accepted standards of medical practice that are defined as standards that are based on (A) credible scientific evidence published in peer-reviewed medical literature that is generally recognized by the relevant medical community, (B)recommendations of a physician-specialty society, (C) the views of physicians practicing in relevant clinical areas, and (D) any other relevant factors; (2) clinically appropriate in terms of type, frequency, timing, site, extent and duration and considered effective for the individual's illness, injury or disease; (3) not primarily for the

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convenience of the individual, the individual's health care provider or other health care providers; (4) not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of the individual's illness, injury or disease; and (5) based on an assessment of the individual and his or her medical condition.

8. **Prior Authorization**: A process for approving covered services prior to the delivery of the service or initiation of the plan of care based on a determination by CHNCT as to whether the requested service is medically necessary.

RESOURCES AND REFERENCES:

- Egan, JC, Dubois JJ, Morphy M, et al. Compressive orthotics in the treatment of asymmetric pectus carinatum: a preliminary report with an objective radiographic marker. J Pediatr Surg 2000; 35:1183.
- Fonkalsrud EW, Anselmo DM. Less extensive techniques for repair of pectus carinatum: the undertreated chest deformity. J Am Coll Surg 2004; 198:898.
- Frey AS, Garcia VF, Brown RL, et al. Nonoperative management of pectus carinatum. J Pediatr Surg 2006; 41:40.
- Lee RT, Moorman S, Schneider M, Sigalet DL. Bracing is an effective therapy for pectus carinatum: interim results. J Pediatr Surg 2013; 48:184.
- Lee SY, Lee SJ, Jeon CW, et al. Effect of the compressive brace in pectus carinatum. Eur J Cardiothorac Surg 2008; 34:146.
- Nuchtern, J., Mayer, O. (2023). Pectus Carinatum. In G. Redding (Ed.), *UpToDate*. Retrieved from https://www.uptodate.com/contents/search

PUBLICATION HISTORY

Status	Date	Action Taken
Original Publication	June 2017	Approved at the May 10, 2017 Medical Policy Review Committee meeting. Approved at the June 20, 2017 Clinical Quality Subcommittee meeting. Approved by DSS on July 14, 2017.
Update	June 2018	Update to Resources and References Section. Change approved at the June 13, 2018 Medical Policy Review Committee meeting. Change approved by the CHNCT Clinical Quality Subcommittee o June 18, 2018. Approved by DSS on June 20, 2018.
Update	April 2019	Update to *Clinical Guideline* section for both Pectus Carinatum an Excavatum. Modified language regarding scoliosis, further define bracing regimen, provided specific examples of cardiopulmonary compromise. Moved clinical information needed for review to *Procedure* section of policy. Removed language regarding bracing for pectus excavatum being investigational. *Added Correction of mild pectus excavatum is usually cosmetic in nature. Surgery is typically the recommended treatment for individuals with a moderate to severe deformity leading to compression of the heart and lungs. However, requests for a compressive orthosis to correct pectus excavatum will be reviewed and may be considered medically necessary based on an assessment of the individual an their unique clinical needs.* Update to *Procedure* section. Expanded list of information

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		required for medical necessity review to include: A more detailed description of the specific bracing protocol; documentation from the medical record supporting the medical necessity of the orthosis including, but not limited to: current symptoms or complaints related to deformity (i.e. dyspnea, fatigue chest pain, exercise intolerance, wheezing etc.); presence of any associated musculoskeletal abnormalities and/or associated syndromes; findings of a recent physical exam (within 3 months) t include severity of defect and flexibility of costal cartilage; results any testing related to current symptoms or complaints (i.e. electrocardiogram, echocardiogram, chest x-ray, CT scan, pulmonary function tests); and office notes documenting a discussion with patient, where bracing regimen explained and patient verbalized willingness and ability to adhere to regimen. Updates to *Reference* section. Changes approved at the May 8, 2019 CHNCT Medical Reviewer meeting. Changes approved by the CHNCT Clinical Quality Subcommittee on June 19, 2019. Approved by DSS on June 21, 2019.
Update	April 2020	Update to Resources and References section. Changes approved at the March 11, 2020 CHNCT Medical Reviewer meeting. Approved by the CHNCT Clinical Quality Subcommittee on March 16, 2020. Approved by DSS on April 16, 2020.
Review	March 2021	Reviewed and approved without changes at the February 10, 2021 CHNCT Medical Reviewer meeting. Approved by the CHNCT Clinical Quality Subcommittee on March 15, 2021. Approved by DSS on March 22, 2021.
Review	March 2022	Policy reviewed at approved without changes at the January 12, 2022 CHNCT Medical Reviewer meeting. Approved by the CHNCT Clinical Quality Subcommittee on March 21, 2022. Approved by DSS on March 24, 2022.
Review	March 2023	Policy reviewed at approved without changes at the December 14, 2022, CHNCT Medical Reviewer meeting. Approved by the CHNCT Clinical Quality Subcommittee on March 20, 2023. Approved by DSS on March 27, 2023.
Update	October 2023	Updates throughout policy to remove word “compressive” from compressive orthoses. Update to Introduction section to include the two main types of pectus carinatum, specify typical age of diagnosis, and treatment options for the two main types of pectus carinatum. Also modified language to include more clinically-appropriate terms. Update to Procedure section. Removed “presence of any associated musculoskeletal abnormalities and/or associated

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		syndromes" to reflect the current medical documentation necessary for review. Update to Resources and References section. Changes approved at the October 11, 2023 CHNCT Medical Reviewer meeting. Changes approved by the CHNCT Clinical Quality Subcommittee on December 18, 2023. Approved by DSS January 03, 2024.
Update	October 2024	Updates throughout policy to remove pectus excavatum. Policy addresses pectus carinatum only. Separate policy will address orthosis for pectus excavatum. Update to Procedure section to include a signed prescription from a physician, PA, or APRN dated within the past 12 months. Code section updated to include new HCPCS code for thoracic, pectus carinatum orthosis. Resources and References updated to remove reference for pectus excavatum. Changes approved at the October 9, 2024 CHNCT Medical Reviewer meeting. Changes approved by the CHNCT Clinical Quality Subcommittee on December 16, 2024. Approved by DSS on December 27, 2024.

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