



**MedStar Family
Choice**

ADMINISTRATIVE POLICY AND PROCEDURE

Policy #:	1431	
Subject:	Pediatric Cranial Orthotic Devices for Positional Plagiocephaly or Brachycephaly	
Section:	Medical Non-Pharmacy Protocols	
Initial Effective Date:	07/23	
Revision Effective Date(s):	07/24, 07/25	
Review Effective Date(s):		
Responsible Parties:	Medical Director	
Responsible Department(s):	Clinical Operations	
Regulatory References:	Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines for the Management of Patients with Positional Plagiocephaly: Executive Summary. Neurosurgery. 2016 Nov;79(5):623-624.	
Approved:	Vice President, Clinical Care and Quality	Chief Medical Officer

Purpose: To define the criteria and conditions under which MedStar Family Choice (MFC) Medical Directors will authorize cranial orthotics.

Scope: MedStar Family Choice, Maryland

Policy: It is the policy of MedStar Family Choice to provide a cranial orthotic when a medical director determines medically necessary as outlined in the criteria below.

Background:

Positional nonsynostotic plagiocephaly (also deformational plagiocephaly or positional cranial deformity) results from external pressure (molding) that can misshape the skull. It is described as unilateral occipital flattening and may be accompanied by forward displacement of the ipsilateral ear and forehead and by orbital asymmetry. Brachycephaly is another type of cranial deformity in which the posterior aspect of the head is flattened. This also may be related to positioning. Positional skull deformities are treated conservatively. In many cases, the condition may resolve spontaneously when the infant begins to put less pressure on the back of the head. This happens when the infant can roll over and, later, sit up.

In 2011, the American Academy of Pediatrics (AAP) published a report on the prevention and management of positional skull deformities in infants. The report recommends positional

therapies for mild to moderate skull deformities and cranial orthoses for severe deformities. Cranial orthotic therapy is diminished in efficacy if instituted when head growth has stabilized, generally around age 1 year. Individual cases and postsurgical treatment may vary.

Definitions:

1. Craniosynostosis (synostotic deformity): non-positional cause of head shape deformity that occurs when one or more cranial sutures fuse prematurely. Treatment is surgery.
2. Positional plagiocephaly/brachycephaly (nonsynostotic deformity): Abnormal head shape caused by external pressure that causes the skull to become misshapen. Treatment can be observation, positioning, physical therapy, and application of a cranial orthotic (helmet, band).

Procedure: MFC will require PA for cranial orthotics. Requests for cranial orthotics should be forwarded along with the supporting clinical information in accordance with the MFC PA Policy.

A. Coverage

1. For synostotic deformity: A cranial orthotic may be medically necessary when medical documentation is provided that the orthotic will be used post-operatively as directed by a pediatric neurosurgeon or craniofacial surgeon.
2. For positional deformity (nonsynostotic) including plagiocephaly and brachycephaly, the initial use of a cranial orthosis will be determined to be medical necessity when the provided medical documentation demonstrates that ALL (if applicable) of the below criteria are met:
 - a. Medical record documentation that a medical practitioner has instructed caregiver in repositioning therapy and the member has failed to show any improvements after 2 months of that repositioning therapy (not required if older than 6 months)
 - i. Positional therapy between for ages 2-6 months includes increased “tummy time,” keeping objects of interest to the side opposite the posterior cranial flattening, and regular alternation of feeding sides and positions for nursing or bottle feeding; AND
 - b. Medical record documentation that the 2-month-trial of positioning therapy has failed to improve the deformity and is judged unlikely to do so; AND
 - c. Medical record documentation that a medical practitioner has recommended a cranial orthotic; AND
 - d. Physical therapy is being provided if torticollis is present; AND
 - e. Initiation of cranial orthotic therapy is between 3-12 months (corrected age for prematurity); AND
 - f. Cranial measurements by orthotics provider confirming moderate to severe head shape deformity as evidenced by one of the following criteria:
 - i. Asymmetry discrepancy of at least 10 mm in one of the following measurements: cranial vault, skull base, or orbitotragal depth;
 - ii. Cranial Vault Asymmetry Index of >8.75 ;
 - iii. Cephalic Index 2 or more standard deviations above or below mean for age and gender:

Sex	Age	-2SD	-1SD	Mean	+1SD	+2SD
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Male	Under 6 mo	63.7	68.7	73.7	78.7	83.7
	6-12 months	64.8	71.4	78.0	84.6	91.2
Female	Under 6 mo	63.9	68.6	73.3	78.0	82.7
	6-12 months	69.5	74.0	78.5	83.0	87.5

3. Coverage for an additional (continuation) cranial orthosis may be considered medically appropriate when all of the following criteria are met:
 - a. Cranial measurements continue to meet the thresholds for initial approval of a cranial orthosis.
 - b. Clinical documentation that the initial cranial orthosis was worn as directed.
 - c. The member is under 1 year of age.

B. Noncoverage

1. Cranial orthotics are cosmetic in nature and not medically necessary in infants who do not meet the above criteria.
2. Cranial orthotics are not medically necessary if they are initiated when head growth has stabilized, around 1 year of age.

References:

James Laughlin, Thomas G. Luerssen, Mark S. Dias, the Committee on Practice and Ambulatory Medicine, Section on Neurological Surgery; Prevention and Management of Positional Skull Deformities in Infants. *Pediatrics* December 2011; 128 (6): 1236–1241.

Rogers, Gary F. MD, JD, MBA, MPH. Deformational Plagiocephaly, Brachycephaly, and Scaphocephaly. Part I: Terminology, Diagnosis, and Etiopathogenesis. *Journal of Craniofacial Surgery* 22(1):p 9-16, January 2011.

Flannery AM, Tamber MS, Mazzola C, Klimo P Jr, Baird LC, Tyagi R, Bauer DF, Beier A, Durham S, Lin AY, McClung-Smith C, Mitchell L, Nikas D. Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines for the Management of Patients With Positional Plagiocephaly: Executive Summary. *Neurosurgery*. 2016 Nov;79(5):623-624.

Klimo P Jr, Lingo PR, Baird LC, et al. Congress of Neurological Surgeons systematic review and evidence-based guideline on the management of patients with positional plagiocephaly: the role of repositioning. *Neurosurgery*. 2016;79(5):e627–e629.

Baird LC, Klimo P Jr, Flannery AM, et al. Congress of Neurological Surgeons systematic review and evidence-based guideline for the management of patients with positional plagiocephaly: the role of physical therapy. *Neurosurgery*. 2016;79(5):e630–e631.

Tamber MS, Nikas D, Beier A, et al. Congress of Neurological Surgeons systematic review and evidence-based guideline on the role of cranial molding orthosis (helmet) therapy for patients with positional plagiocephaly. *Neurosurgery*. 2016;79(5):e632–e633.

Holowka, Mark A. MSPO, CPO*; Reisner, Andrew MD*,†; Giavedoni, Brian MBA*; Lombardo, Janet R. MBA, CPO*; Coulter, Colleen DPT, PhD*,‡. Plagiocephaly Severity Scale to Aid in Clinical Treatment Recommendations. *Journal of Craniofacial Surgery* 28(3):p 717-722, May 2017.

Graham T, Millay K, Wang J, Adams-Huet B, O'Briant E, Oldham M, Smith S. Significant Factors in Cranial Remolding Orthotic Treatment of Asymmetrical Brachycephaly. *J Clin Med*. 2020 Apr 5;9(4):1027.

Summary of Changes:	07/25: • Text edits 07/24: • Changed Names to Titles in Responsible Parties and Approved section • Added criteria for coverage for continuation orthosis 07/23: • New Policy
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