



# Plagiocephaly Severity Scale

---

Level	Clinical Presentation	Recommendation*	CVAI
1	All symmetry within normal limits	No treatment required	< 3.5
2	<ul style="list-style-type: none"><li>• Minimal asymmetry in one posterior quadrant</li><li>• No secondary changes</li></ul>	Repositioning program	3.5 to 6.25
3	<ul style="list-style-type: none"><li>• Two quadrant involvement</li><li>• Moderate to severe posterior quadrant flattening</li><li>• Minimal ear shift and/or anterior involvement</li></ul>	Conservative treatment: <ul style="list-style-type: none"><li>• Repositioning</li><li>• Cranial remolding orthosis (based on age and history)</li></ul>	6.25 to 8.75
4	<ul style="list-style-type: none"><li>• Two or three quadrant involvement</li><li>• Severe posterior quadrant flattening</li><li>• Moderate ear shift</li><li>• Anterior involvement including noticeable orbit asymmetry</li></ul>	Conservative treatment: <ul style="list-style-type: none"><li>• Cranial remolding orthosis</li></ul>	8.75 to 11.0
5	<ul style="list-style-type: none"><li>• Three or four quadrant involvement</li><li>• Severe posterior quadrant flattening</li><li>• Severe ear shift</li><li>• Anterior involvement including orbit and cheek asymmetry</li></ul>	Conservative treatment: <ul style="list-style-type: none"><li>• Cranial remolding orthosis</li></ul>	> 11.0

\*This evaluation tool is provided to assist medical professionals in determining the appropriate course of treatment for their patients. Individual cases may vary. Recommendations are included as examples and should not be considered a substitute for individual evaluation, diagnosis and treatment decisions made by a medical professional.

## Age: Birth to 4 months

- A documented **two-month period of repositioning** is highly recommended prior to referring a patient for cranial remolding orthosis evaluation. **This conservative step is typically required by third-party payors before authorizing a cranial remolding orthosis.**
- *Tummy Time Tools* is a parent handout that provides repositioning activities.
  - Visit [choa.org/tummytimetools](http://choa.org/tummytimetools) to download.
- If torticollis is suspected, early referral to physical therapy is recommended.

## Age: 4+ months

Assess for further treatment when any of these secondary skull characteristics are observed:

### PLAGIOCEPHALY

#### Clinical presentation

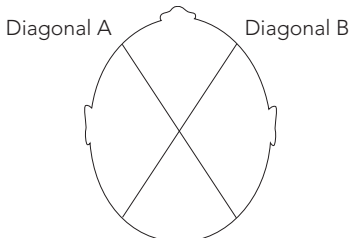
- Ipsilateral ear shift
- Ipsilateral frontal bossing
- Contralateral frontal flattening

#### Clinical documentation

- Measure the longest and shortest diagonal from the forehead to the posterior skull using calipers
- Calculate CVAI

#### Cranial Vault Asymmetry Index (CVAI)

- Measure in millimeters (mm) at 30° from center of nose (outer edge of eyebrow).



$$\text{CVAI} = \frac{|A-B| \times 100}{A \text{ or } B}$$

(whichever is greater)

### BRACHYCEPHALY

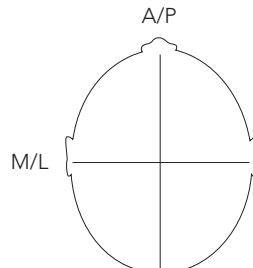
#### Clinical presentation

- Bilateral forehead bossing
- Increased posterior vault
- Bilateral protrusion of parietal bone above ears

#### Clinical documentation

- Measure the M/L and A/P lengths of the skull using calipers
- Calculate Cephalic Ratio (CR)
- If CR > 90, orthotic evaluation recommended

#### Cephalic Ratio (CR)



$$\text{CR} = \frac{\text{M/L}}{\text{A/P}} \times 100$$



Visit [choa.org/cranialremolding](http://choa.org/cranialremolding) or call 404-785-3229 for more information about our services for plagiocephaly.

Some physicians and affiliated healthcare professionals on the Children's Healthcare of Atlanta team are independent providers and are not our employees.

*Dedicated to All Better*<sup>SM</sup>