

Torticollis/Plagiocephaly

FAST FACTS

earlier intervention

promotes faster results and better chance of complete resolution

98%

of infants with CMT achieve normal range of motion within 1.5 months of PT intervention when started before 1 month of age

3–9 months

ideal referral age range for helmeting due to plagiocephaly

WHEN TO REFER

Refer to Cincinnati Children's Physical Therapy immediately once infant shows any signs of CMT or noticeable flat spot on the head (plagiocephaly). Same-day appointments available.

Refer to Cincinnati Children's Plastic Surgery for assessment of plagiocephaly and potential helmeting when infant is 3–9 months of age. Appointments usually scheduled within 2 weeks of referral.

If you have questions about a patient of any age with CMT and/or plagiocephaly, email OTPT@cchmc.org, or call the Physician Priority Link® at 513-636-7997.

Congenital muscular torticollis (CMT) is postural asymmetry in the neck caused by a muscle imbalance, characterized by head tilting to one side and cervical rotation to the other. Plagiocephaly is a flattening on the side of the posterior skull caused by external forces. **CMT and plagiocephaly are time-sensitive diagnoses**, where outcomes are improved by early referral to physical therapy. Plagiocephaly may resolve with positioning therapy without additional intervention (i.e., helmeting).

ASSESSMENT

Perform a standard health history and physical exam, with special attention to:

- Postural asymmetry in neck/trunk
- Limited cervical range of motion (compare left/right sides)
- Craniofacial asymmetry
- Difficulty nursing or feeding on one side
- Hand preference (reaching with/placing one hand in mouth more frequently)
- Mass or tight muscle fibers in the SCM, scalenes, or upper trapezius musculature

HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS

Situational History

- Birth trauma, including instrument delivery
- Primiparity
- Birth body length >51.3 cm (20.2 in)
- Multiple birth
- Breech positioning
- History of neonatal abstinence syndrome (NAS) requiring medication
- Difficulty nursing or feeding from one side

Physical Exam

- Cervical range of motion limitation (rotation or lateral flexion)
- Presence of SCM mass
- Persistent head tilt
- Preference to look to one side more than the other
- Facial or skull asymmetry

Note: Flattening of the skull NOT corresponding to infant's postural preference is a red flag for craniosynostosis (see also Craniosynostosis/Plagiocephaly practice tool).

MANAGEMENT/TREATMENT

Early intervention is key for successful outcomes for CMT and plagiocephaly. It is NOT advisable to 'wait and see' if an infant will outgrow postural preference or asymmetry.

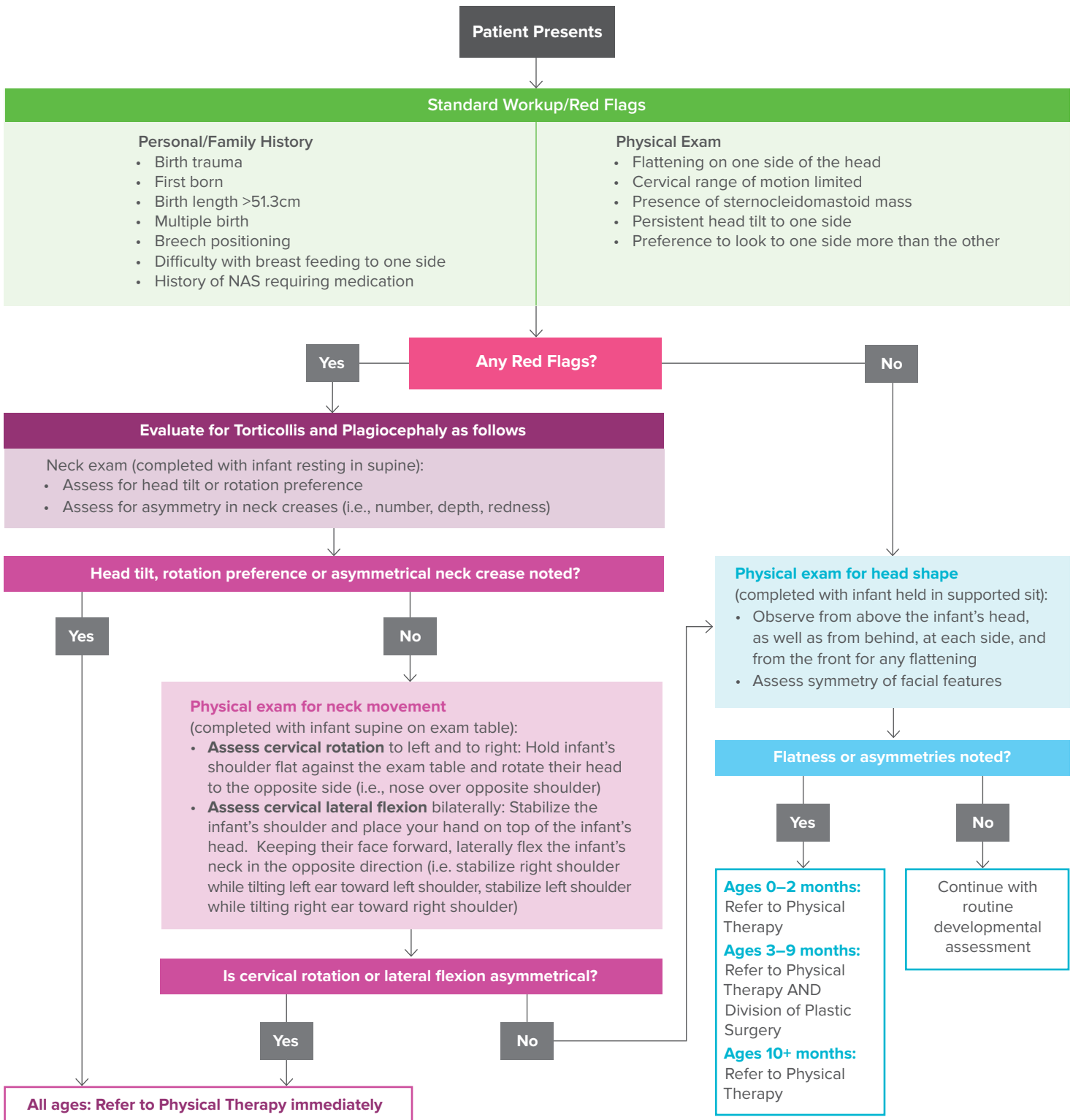
Manage CMT conservatively with PT; focus is on stretching, strengthening, positioning, environmental adaptations and caregiver education and support.

Manage plagiocephaly conservatively with PT; focus is on positioning techniques, environmental modifications, and early caregiver education (skull is most deformable during first 2–4 weeks of life)

If conservative treatment for plagiocephaly is not sufficient, refer the patient to Cincinnati Children's Plastic Surgery. An orthotist may recommend a cranial molding device—these devices are not recommended to patients <4 months of age or over 9 months. Younger infants lack sufficient head control to manage a helmet. Beyond 9 months of age, helmets are ineffective in improving head shape.

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children's.

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For urgent issues, or to speak with the specialist on call 24/7, call the Physician Priority Link® at 1-888-987-7997.