ACADEMY OF PEDIATRIC PHYSICAL THERAPY

Evidence-based Roles in the Management of Congenital Muscular Torticollis (CMT)

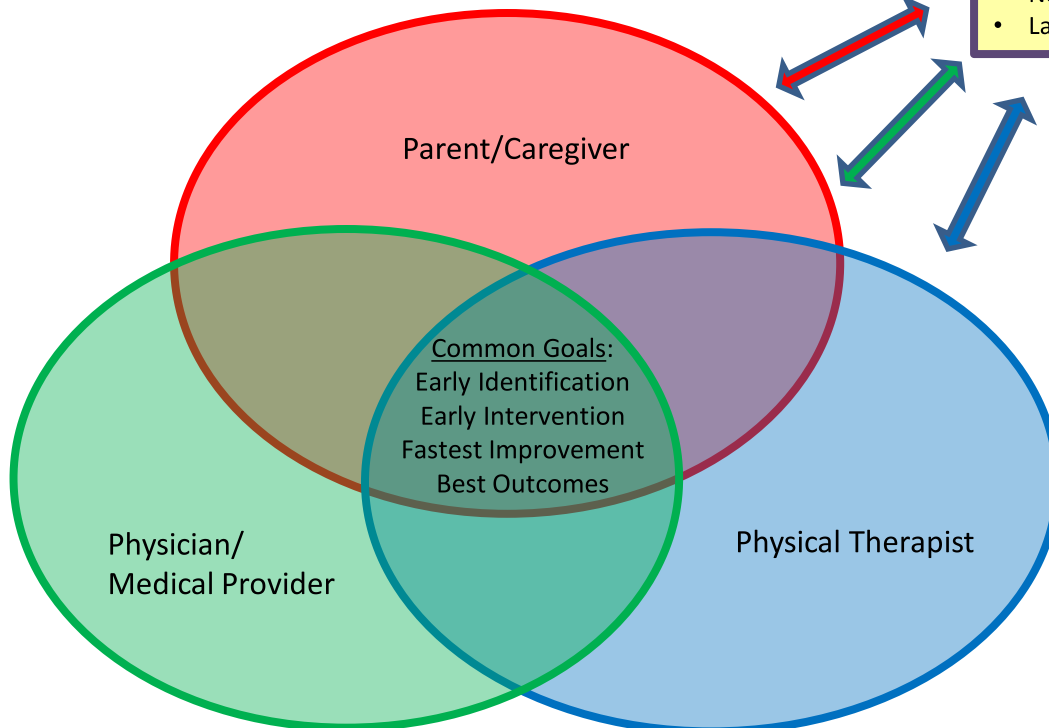
Based on: Kaplan SL, Coulter C, Sargent B. Physical therapy management of congenital muscular torticollis: a 2018 evidence-based clinical practice guideline from the APTA academy of pediatric physical therapy. *Pediatr Phys Ther*. 2018;30:240–290.

The roles of the Parent/Caregiver are to:

- Share concerns with physician and physical therapist
- Collaborate with medical team and report success and difficulties with carrying out recommendations
- Partner with physical therapist to create and modify home program
- Carry out daily home program
- Provide "tummy time" and limit use of carrier devices
- Assist therapist with measurement-taking and monitoring progress
- Monitor head shape and motor development along with therapist
- Participate actively in physical therapy sessions

Other possible consultants for an infant diagnosed with CMT:

- Radiologist
- Orthotist
- Ophthalmologist
- Optometrist
- Orthopedist
- Neurologist
- Lactation specialist



The roles of the Physician/ Health Care Provider are to:

- Educate expectant parents about optimal positioning
- Educate parents of newborns about optimal positioning
- Screen newborns for cervical asymmetries
- Screen infants for CMT at well-checks
- Refer children with asymmetries to physical therapy
- Refer children for additional consultations or diagnostic testing when indicated
- Consult with physical therapist and other specialists

The roles of the Physical Therapist are to:

- Document infant history
- Screen infants for non-muscular causes of CMT
- Screen infants for conditions other than CMT
- Examine body structures
- Classify level of severity
- Examine activity and developmental status
- Examine participation status
- Determine prognosis
- Initiate first choice intervention
- Provide supplemental interventions if appropriate
- Monitor and document progress
- Consult with physician and other specialists
- Discontinue direct intervention when criteria is met
- Reassess infant after 3-12 months or when walking

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Knowledge Broker Network
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Users of this document are strongly encouraged to read the full text 2018 CMT CPG available at: https://journals.lww.com/pedpt/Fulltext/2018/10000/Physical_Therapy_Management_of_Congenital_Muscular.2.aspx.
This document along with other 2018 CMT CPG implementation resources are available at: https://pediatricapta.org/clinical-practice-guidelines/

ACADEMY OF PEDIATRIC PHYSICAL THERAPY

CONGENITAL MUSCULAR TORTICOLLIS
KEY POINTS FOR PARENTS AND CAREGIVERS

WHAT IS CONGENITAL MUSCULAR TORTICOLLIS (CMT)?

- A postural difference of the neck caused by muscle imbalance: an imbalance in range of motion (flexibility) and/or muscle strength
- Typically characterized by head *tilt* to one side and head *turn* to the opposite side
- Usually involves one of the muscles on the side of the neck—the sternocleidomastoid muscle (SCM)

Photograph used with permission

5 SIGNS OF CONGENITAL MUSCULAR TORTICOLLIS

- Baby may hold head tilted or turned to one side
- Baby may avoid turning head to one side
- Baby may struggle more with nursing or feeding on one side
- Baby may prefer to use one hand more when reaching or putting hand to mouth
- Baby's head may be flat on one side

WHEN IS CMT DIAGNOSED? WHAT CAUSES CMT?

- CMT may be present at birth or shortly after.
- While there are a range of causes of CMT, repetitive use of an infant's preferred position for prolonged periods of time may delay resolution.
- Early identification and treatment is important for better outcome.

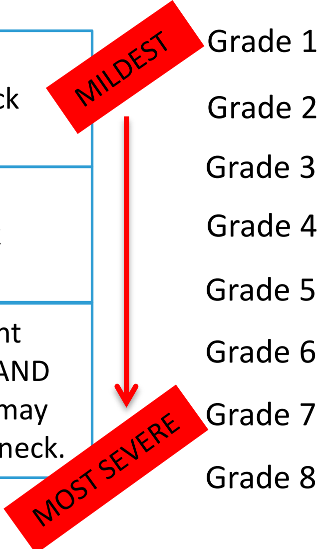
HOW IS CMT CLASSIFIED?

TYPE

POSTURAL CMT: Infant holds his/her head tilted and/or turned. Muscle length and flexibility of neck movement is *not* limited.

MUSCULAR CMT: Infant holds his/her head tilted and/or turned AND has tightness of the SCM neck muscle. There is reduced flexibility of the neck.

STERNOCLEIDOMASTOID (SCM) MASS: The infant prefers to hold his/her head tilted and/or turned AND the SCM muscle has a mass (or small bump) that may be seen or felt. There is reduced flexibility of the neck.



SEVERITY

Your PT will assign a severity grade at the time of examination. Factors affecting the grade include:

- Your baby's age at the time of the initial evaluation
- The presence of an SCM mass or nodule in the neck muscle
- The difference in passive neck turning between the left and right sides during the physical therapy examination

The severity grade is important to guide treatment, assist with predicting how quickly progress could occur, and influence referral to other medical professionals.

Source: Source: Kaplan SL, Coulter C, Sargent B. Physical therapy management of congenital muscular torticollis: a 2018 evidence-based clinical practice guideline from the APTA academy of pediatric physical therapy. *Pediatr Phys Ther.* 2018;30:240–290. The full text 2018 CMT CPG is available to read at: https://journals.lww.com/pedpt/Fulltext/2018/10000/Physical_Therapy_Management_of_Congenital_Muscular.2.aspx.

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TOGETHER IS BETTER: Talk to your medical provider about Physical Therapy

- Infants with CMT should be referred to physical therapy as soon as postural or movement differences are identified.
- Evidence suggests that PT **in combination** with home exercises is more efficient than home exercises alone.

REFERRAL TO PHYSICAL THERAPY What to expect?

Your physical therapist (PT) will do a comprehensive initial evaluation including history, assessment of neck muscle strength, range of motion, and developmental skills.

Together, you and your child's PT will establish a plan of care and determine the need for and frequency of additional follow-up visits.

You and your child will carry over activities at home to assist with improving head position with the guidance and direct intervention from your PT.

- Beginning activities will include:
  - Specific neck, arm, and body active and passive **range of movement**. Your PT will teach you different techniques to help stretch and strengthen your child's muscles.
  - Develop **activity recommendations** to promote muscle balance and progress with motor development. Your PT will also review techniques to support overall development.
  - **Environmental adaptations** such as carrying, handling, and positioning for play and for feeding throughout the day. Your PT will provide tips to make the activities more enjoyable for you and your child.
  - **Parent/caregiver education**. Your PT will also provide additional recommendations for assistance with head shape and address other concerns if they arise.

Your PT will monitor progress along with developmental milestones, posture and muscle balance. Other interventions will be added as needed.

POWER OF EARLY SCREENING AND REFERRAL FOR PHYSICAL THERAPY :

Early intervention:
When intervention is started before 1 month of age, **98%** achieve normal range of movement within 1.5 months.

Early identification and treatment of CMT including physical therapy is critical:

- For early correction
- For early identification of other asymmetry throughout the body
- For early identification of developmental delay
- For prevention of future complications

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ADDITIONAL INFORMATION:

Plagiocephaly: http://pediatricapta.org/includes/fact-sheets/pdfs/Plagiocephaly.pdf
Tummy Time Tools: https://www.choa.org/medical-services/orthopaedics/orthotics-and-prosthetics/tummy-time-tools
Safe to Sleep: https://www.nichd.nih.gov/sts/Pages/default.aspx

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