

## Congenital Muscular Torticollis

By Christina Anderson, MPT

Congenital Muscular Torticollis (CMT) is a tightening and shortening of muscles on one side of an infant's neck, particularly the Sternocleidomastoid (SCM) muscle. CMT may be caused by intrauterine crowding, abnormal positioning in the uterus such as being in a breeched position, or muscle trauma during a difficult delivery. Extra pressure on one side of the SCM can cause fibrosis or shortening of the muscle. Muscle banding or a mass or lump can sometimes be felt on the side of the infants neck. Some babies with CMT may also have developmental dysplasia of the hip caused by abnormal positioning in the womb or a difficult childbirth. A customized treatment approach by a pediatric physical therapist is often the most beneficial form of treatment for an infant who has congenital muscular torticollis.

CMT may be visible at birth or it may not become evident until several weeks later when an infant gains more control over the head and neck. Signs and symptoms of torticollis include: the infants head is tilted to one side and their chin points to the opposite shoulder. In 75% of infants with torticollis, the right SCM is affected. In this case, the infants head would tilt to the right and the chin would point to the left. CMT can often be detected when looking at an infant's posture in an infant carrier, the head is consistently tilted to the same side and the chin is pointed to the opposite shoulder. CMT may also be evident by the infants sleep position. The infant typically sleeps with their head always turned to the same side. You may notice that the infant prefers to look at you over one shoulder but not the other because of limited range of motion in their neck. Oro-motor functions including swallowing can also be affected. If breastfed, the infant may have difficulty latching on noted by leaking of milk out of their mouth or inability to successfully breastfeed on one or both sides.

Infants with CMT may also develop asymmetrical head shape or positional plagiocephaly. Plagiocephaly is reported as a coexisting impairment in 80% to 90% of children with CMT. Constant pressure on one side of the back of the head leads to flattening which may also be accompanied by frontal bulging. Facial asymmetries may also be noted with one eye appearing smaller than the other eye, eye and eyebrow level may be uneven, one ear may appear more forward than the opposite ear, and one side of the chin may be more indented than the opposite side. Plagiocephaly has increased in frequency since the initiation of the "back to sleep" program. It is important to limit the amount of time the infant spends in infant carriers, infant swings, and bouncy seats which apply constant pressure to the back of the head leading to flattening and plagiocephaly.

Early detection and treatment of CMT is imperative for a full recovery. Physical therapy is the primary intervention for CMT. Infants who go untreated are at risk for progressive muscle and soft tissue tightness, decreased head and neck control, delayed achievement of developmental milestones, impaired trunk rotation and rib cage mobility, impaired balance and coordination, positional deformation of the skull, and inability to interact and play symmetrically. An evaluation by a pediatric physical therapist is recommended for treatment of congenital muscular torticollis. A pediatric physical therapist will teach parents gentle side bend and rotation stretches for elongation of the tight SCM

muscle which should be performed frequently during the day preferably at every diaper change. The physical therapist will instruct parents on proper positioning techniques and play activities that incorporate active stretching and strengthening to be performed as part of the home program. Some treatment strategies to try at home include: encourage the infant to turn their head to both directions to look over their right and left shoulder during play and feeding, practice tummy time while the infant is awake and supervised many times throughout the day, alternate the end of the crib and changing table in which you place the infants head so that they are not always looking to the same side to see you, and do not always use the same hip and arm to carry the infant. An infant with CMT normally prefers to only roll to the direction that is easier for them to turn their head to. It is important for the infant to roll from their back to their stomach to both directions over their right and left shoulders to promote symmetry. Plagiocephaly is often corrected with physical therapy. With more severe cases, the combination of physical therapy and a cranial remodeling orthosis may be needed. It is imperative for CMT and plagiocephaly to be detected and treated as early as possible. The earlier treatment is started the faster the recovery and the greater the success rate. Early detection, treatment, and parent education is pivotal for successful intervention for the child with CMT. If you believe your infant may have CMT please contact your pediatrician for a referral to a pediatric physical therapist that specializes in treating CMT.

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