

Infantile Torticollis: A Practical Guide

John E. Handelsman*

Hassenfeld Children's Hospital at NYU Langone, New York, USA

***Corresponding Author:** John E. Handelsman, MD, FRCS, MCh Orth, Pediatric Orthopedic Surgery, 28 Blossom Terrace, Larchmont, New York, 10538, USA.

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The paediatrician will quite frequently see a two- or three-month-old infant with the head held rotated to one side and tilted to the other.

When examined closely, there is invariably some flattening of the face unilaterally and a similar flattening of the occiput on the opposite side.

This is commonly labelled "congenital" torticollis, but in the absence of any obvious bony anomaly, the condition is in fact entirely secondary to a significant muscle imbalance.

At the time of birth, the face is normal, but facial and occipital flattening gradually develops and the tilt and rotation becomes obvious as the infant develops head control.

It is thought that facial flattening occurs to enable equal eye distances for binocular vision when the head is constantly rotated to one side. The occipital flattening simply balances the baby's soft spherical skull.

The out of balance muscles are the sternocleidomastoids, two oblique muscles in the neck that attach to the mastoid processes behind the ear above, and the proximal sternum below.

During a difficult delivery, and occasionally following intra-uterine crowding, one of these long, oblique muscles may be stretched and some muscle fibres torn.

Healing produces fibrous scar tissue. As this matures, it contracts, and the muscle shortens. When palpated, the affected muscle feels thin and firm. A lump is sometimes present.

The shortened sternocleidomastoid muscle pulls the mastoid and ear on that side towards the sternum, thus rotating the head to the opposite side. The head tilts towards the affected side.

Treatment must be aimed at eliminating the cause. The use of a helmet to correct facial asymmetry may help temporarily, but the deformity will recur if muscle imbalance remains.

During the first year of life, stretching the shortened sternocleidomastoid muscle is effective.

Stretching cannot be left to the physical therapist, who will only see the infant, at best, two or three times a week.

The parents must assume this role and be taught how to stretch the tight muscle.

Stretching is performed 20 times at each sitting and held to a count of 5. This must be done at least three times a day and preferably more. Stretching the neck at each diaper change may be convenient if this is sufficiently frequent.

When both parents are present, stretching is most easily performed by placing the baby on his or her back on a flat surface, such as a bed, with the head near the edge. One parent stabilizes the shoulders. The other holds the head with both hands and gradually rotates it towards the side of the tilt. The head is held in this position for five seconds. The stretch is repeated 20 times at each session.

When only one parent is present, the infant is sat on the parent's lap, also facing forwards.

One hand then stabilizes the shoulders and the other is placed around the baby's face and head, so that the hand grips the occipital area. The head is then rotated towards the tilted side, so that the distance between the ear and the sternum is increased, thus stretching the tight sternocleidomastoid muscle.

For example, if the infant's head is tilted towards the right and rotated to the left, the parent's left hand would be used to stabilise the shoulder. The right hand would be placed around the head, which is then rotated towards the right.

This simple stretching technique is very effective if done consistently and correctly. The facial and occipital flattening gradually corrects, and the infant holds the head correctly aligned.

Correction may take up to six months. The parents must understand that stretching is to continue until correction is full. Follow up visits at two monthly intervals are recommended.

When infantile torticollis is first diagnosed after one year of age, stretching is less effective. Minor surgical intervention, performing a "Z" type elongation of the shortened sternocleidomastoid muscle, may then be necessary.

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