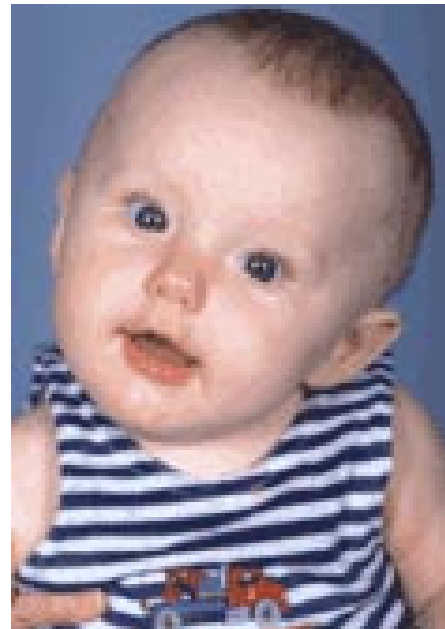


Muscular Torticollis

OVERVIEW

Muscular torticollis is a condition that causes a child to hold the head turned to one side. Some times this is referred to as "wry neck". There are numerous causes for limited neck motion, but the most common reason in infants and young children relates to a tight muscle on one side of the neck. Most of the time, this tight muscle can be stretched out with a simple home stretching program.



CAUSES

It is traditionally thought that a tight intrauterine space or the trauma of the birthing process causes bleeding into the muscles of the neck, especially the sternocleidomastoid muscle. The muscle heals with time, but scar tissue causes the muscle to shorten, thus pulling the head to a characteristic rotated and tilted position, as seen in the photo. Sometimes, there is an associated mass that can be seen or felt within the sternocleidomastoid muscle. This is believed to be due to the blood that collects in the muscle. This mass usually disappears by 3 months of age.

Other doctors have suggested that the sternocleidomastoid muscle shortens as a result of scarring due to an intrauterine vascular disturbance. Still others think that it is due to intrauterine position of the head causing fibrosis or shortening of the muscle. Other conditions associated with a tight intrauterine space are also more common in children with congenital muscular torticollis. These conditions are referred to as "packaging" problems and include hip dysplasia and metatarsus adductus. There is a 20% incidence of hip dysplasia in children with muscular torticollis. It is important that your doctor does a careful evaluation to check for these other "packaging" problems.



DIAGNOSIS

Congenital muscular torticollis does not cause pain. It is usually recognized in the first few months of life by the parents, as the child persists in holding the head in a rotated and tilted position. The right side is involved in 75% of cases, and the child holds his head tilted to the right, with his face and chin rotated to the left. There may or may not be an associated sternocleidomastoid muscle mass. This mass, however, tends to resolve spontaneously after about 3 months.

Often the skull will become asymmetric with some flattening on the opposite side in the back. This skull asymmetry is called plagiocephaly. If uncorrected, as the child grows, the face on the side affected may stay "flattened", so that facial asymmetry is common. This is reversible if the torticollis is corrected before age 1. Beyond that, some facial asymmetry may remain permanent.



After a thorough history and examination, your doctor should be able to tell if the torticollis is muscular. Xrays and other imaging studies are not needed. There are other causes of torticollis. If the torticollis is due to vertebral abnormalities, then the deformity is quite rigid, and resists any attempt at correcting it passively. Muscular torticollis, even in the more severe cases, can be corrected passively to some extent. In cases where the torticollis is due to spinal cord abnormalities, there are usually other symptoms or signs that suggest the underlying problem. In these cases, other imaging studies may be recommended.

TREATMENT

The mainstay of treatment is a home stretching program to lengthen the contracted sternocleidomastoid muscle for 5-10 minutes, 4 to 6 times a day. In a child with right torticollis, the head is tilted to the right and the face is rotated to the left. You will want to tilt his head to the left (left ear towards left shoulder), and rotate his face to the right (chin to right shoulder). In a child with left torticollis, the stretching is the opposite. The stretches can be difficult to master, but with practice and good teaching from a physical therapist, the family will get the hang of it quickly. Stretching should be consistent and gentle. It will not work if the child is upset or uncomfortable. Some times you need to time the stretching for after naps or with meals to get good cooperation. The stretching is generally continued until the child is one year of age. Your doctor or therapist will advise you as to the frequency and duration of the exercises.



In addition to the stretching, it is valuable to position the child's high chair, car seat, etc so that most noise and activity encourage them to turn there head to the tight side. The therapist will review options for doing this.

If there is asymmetry to the skull. This primarily comes from laying flat while sleeping. The best means to let the head grow rounder is to stretch out the sternocleidomastoid tightness and stimulate active motion to the tight side as described above. However, it is also advisable to reposition the child at night with a soft roll behind the back to unload the flat part of the skull.

There are braces and helmets which can hold and stretch the neck. Some also protect the head, but these braces are uncomfortable, difficult to use, and expensive. If progress is not made with therapy, sometimes the bracing can help.

PROGNOSIS

Prognosis is good. When discovered early, and stretching exercises and positioning followed consistently, 80% recover completely with no long-term effects. In some cases that do not respond to the stretching by age one, surgical release of the sternocleidomastoid muscle may be required.

MORE INFORMATION

Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and the Pediatric Orthopedic Society of North America at www.orthokids.org.