Torticollis ("Head tilt")

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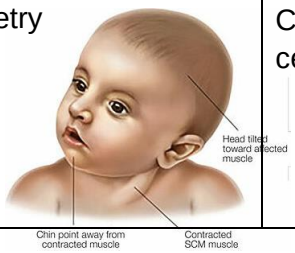
See also: *Cervical spine injury*

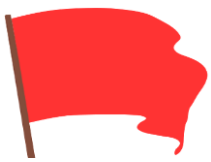
Background

Torticollis = persistent tilting of the head to one side.
Not a diagnosis – clinical sign of an underlying pathology

Causes / classification:

Congenital	Acquired
The **most common cause** is congenital muscular torticollis (CMT): - Caused by shortening and fibrosis of the sternocleidomastoid muscle - Rarer causes include cervical spine malformations, Chiari malformations and spina bifida - Associated with birth trauma or antenatal complications - Often have facial asymmetry Present from birth but can become more noticeable after several weeks. 	Acquired torticollis typically occurs after 4-6 months Typically results from SCM or trapezius muscle injury or inflammation. – Usually causes chin pointing towards the opposite side and ear / head tilted to the affected shoulder (as per CMT). Can also be caused by cervical muscle spasm or cervical nerve irritation – Other causes e.g. C1-C2 (atlantoaxial) rotary subluxation can present with SCM spasm on the side to which the chin is tilted

Red flag symptoms



- Neck stiffness / inability to extend neck
- Fever or drooling or vomiting
- Pain increasing, unremitting or disturbs sleep
- Recent trauma
- Repeated hospital attendances with persistence of symptoms
- Gait disturbance
- History of headaches or change in behaviour

Life threatening causes:

- **Retropharyngeal abscess** – fever, irritability, drooling, limitation of neck extension and using eyes only for upward gaze.
- **C-spine injury** – history of trauma, findings not typical of SCM spasm
- **CNS tumours** – posterior fossa, spinal
- Spinal epidural haematoma / suppurative jugular thrombophlebits

Common causes:

- Muscle injury or inflammation causing spasm – contusion, spontaneous torticollis 'wry neck', myositis. Usually minor trauma, viral illness or no history (typically occurs on waking).
- Acute infections with muscle spasm – pharyngitis, cervical lymphadenitis, quinsy, URTI.
- Atlantoaxial rotary subluxation (AARS) – rotational displacement of C1 on C2 due to retropharyngeal oedema → ligamentous laxity. Non traumatic cause aka Grisel syndrome: 6-12 years. Minor trauma, pharyngeal surgery, secondary SCM spasm, URTI.

Assessment

Questions to ask:

- Onset of symptoms and duration.
- History of awkward head or neck posture for prolonged period of time e.g. playing on console game, sleep position
- Recent trauma
- Fever, drooling, sore throat, difficulty swallowing
- Symptoms associated with brain or spinal tumour e.g. headache, vomiting, ataxia, seizures, nocturnal or early morning waking, gait disturbance, back or neck pain
- Visual symptoms e.g. diplopia, photophobia,
- Birth history: birth trauma, oligohydramnios, breech presentation
- Medication history including drugs with dystonia risk profile e.g. metoclopramide

What to look for:

- Head and chin position
- CMT can be associated with a palpable mass in the sternocleidomastoid muscle, plagiocephaly, gross motor delay or hip dysplasia
- Tenderness of muscles or midline C-spine
- Range of ACTIVE neck movement – never force neck movements in children with torticollis
- Look for signs of a space occupying lesion, lymphadenopathy, or tonsillitis / otitis media
- Eye movements

Imaging to consider – discuss with CED senior and Paediatric Radiologist

- **Cervical spine X-ray** – persistent symptoms > 1 week, severe pain, limited range of movement after analgesia, underlying condition causing ligamentous laxity e.g. T21
- **CT neck** for retropharyngeal abscess / bony injuries
- **MRI brain** for concerns re: posterior fossa tumours / spinal malignancy / ligamentous injury
- **USS neck** in infants

Management

Typical age and presentation for CMT

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Reassure parents and provide education

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Refer to paediatric physiotherapy on L5

Use blue physiotherapy referral form and email completed form to: **bsu-tr.paediatricphysio@nhs.net**

Typical age and presentation for simple muscle spasm or injury

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- Provide adequate analgesia (often requires paracetamol / ibuprofen +/- morphine +/- diazepam
- Able to move neck + no concerning features or red flags
- Manage any underlying causes

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- ✓ Provide leaflet e.g. **Spasmodic Torticollis (Twisted Neck) | Symptoms, Causes and Treatment | Patient**
- ✓ Advise regular analgesia
- ✓ Provide safety advice e.g. bicycle riding
- ✓ Return if symptoms have not resolved after 7-10 days or any red flags

Routine physiotherapy referral not indicated

Red flags or concerning features e.g. trauma / head tilt not typical for simple muscle spasm

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Urgent discussion with CED senior

- Do not attempt to move neck – allow child to maintain position of comfort
- Provide analgesia

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Consider

- Appropriate imaging e.g. X-ray, CT, MRI
- Formal ophthalmology review at SEH
- IV antibiotics and urgent ENT review if suspecting retropharyngeal abscess
- If imaging suggestive of atlantoaxial rotary subluxation – discuss with paediatric neurosurgery at Southampton General Hospital (see C-spine injury guideline for further details)

The Paediatric Physiotherapy department have produced leaflets for exercises in CMT. Please check the Trust's leaflet website

Notes

Causes of acquired torticollis

There are many aetiologies, including:

- *Musculoskeletal:* muscular spasm ("wry neck")
- *Infection:* meningitis, cervical osteomyelitis, discitis, pneumonia, otitis media, tonsilitis, cervical adenitis, mumps, dental infection
- *Inflammation:* intradiscal calcification, enthesopathy, juvenile arthritis, spondyloarthropathies
- *Malignant:* posterior fossa and cervical spine tumours
- *Other:* trauma, post head/neck surgery, ophthalmological squint, Sandifer's syndrome, adverse drug reactions (antipsychotics, metoclopramide, amphetamines, cocaine)

Acute torticollis has a duration **<6 weeks**

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