

# Flex Therapist CEUs

## Torticollis

### **Do obstetric risk factors truly influence the etiopathogenesis of congenital muscular torticollis?**

**1. Torticollis is a clinical diagnosis where the \_\_\_\_\_ muscle is shorted on the involved side leading to a lateral tilt toward the affected muscle and contralateral rotation of the face and chin.**

- A. Scalenne
  - B. Mylohyoid
  - C. Sternocleidomastoid
  - D. Thyrohyoid
- 

**2. All of the following obstetric and newborn risk factors have been proposed for the development of congenital muscular torticollis, except for:**

- A. Prolonged labor
  - B. Macrosomia
  - C. Breech or other irregular fetal presentations
  - D. Placenta previa
- 

**3. There were found to be significant differences in which birth characteristic?**

- A. Children with left- vs. right-sided CMT
  - B. Boys vs. girls
  - C. Conservative treated vs. surgery
  - D. There were no differences found in any of the birth characteristics
- 

**4. Previous studies suggest that the side of the torticollis is related to CMT:**

- A. By intrauterine positioning.
  - B. Due to delivering of the first shoulder.
  - C. Previous studies suggest that the side of the torticollis is related to CMT either by intrauterine positioning or due to delivering of the first shoulder.
  - D. Neither intrauterine positioning nor delivery of the first shoulder have been suggested as an influence on the side of the CMT.
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**5. A previous study by Lee et al. found that vaginal births, compared to cesarean sections, had more clinical severity of CMT.**

- A. True
  - B. False
- 

**6. One study found an association between torticollis and the fetus being in the same intrauterine position for more than \_\_\_\_\_ weeks before delivery.**

- A. 4
  - B. 6
  - C. 8
  - D. 10
- 

**7. MRI was used to observe the SCM muscle in infants and found signals similar to those in:**

- A. Compartment syndrome
  - B. Dislocation
  - C. Tendinitis
  - D. Herniation
- 

**8. It has been suggested that stretching of the SCM muscle during delivery may be a direct cause of CMT.**

- A. True
  - B. False
- 

## **Spinal manual therapy in infants, children and adolescents: A systematic review and meta-analysis on treatment indication, technique and outcomes**

**9. Non-musculoskeletal conditions as treatment indication in children differs from manipulative treatment approaches in adults, which are mainly focused on musculoskeletal conditions, such as all of the following, except for:**

- A. Scoliosis
  - B. Headache
  - C. Neck pain
  - D. Low back pain
- 

**10. Gentle, low-velocity mobilization techniques appear to be a safe treatment technique in infants and children.**

- A. True
  - B. False
-

**11. Cervical and full spine HVLA manipulations might be associated with severe harms.**

- A. True
  - B. False
- 

**12. All of the following mild, transient harms were reported in HVLA manipulation studies, except for:**

- A. Stiffness
  - B. Joint dislocation
  - C. Soreness
  - D. Headache
- 

### **Longitudinal follow-up of muscle echotexture in infants with congenital muscular torticollis**

**13. Infants with CMT feature unilateral fibrous contracture of the SCM muscle with all of the following characteristics, except for:**

- A. Smooth philtrum
  - B. Head tilt
  - C. Limited neck rotation
  - D. Palpable mass
- 

**14. Physical examination is sufficient in diagnosing CMT in infants, even those with minimal clinical presentations.**

- A. True
  - B. False
- 

**15. Using ultrasonography, most infants showed type III fibrosis, which was altered during follow-up to become a pseudo-tumor.**

- A. True
  - B. False
- 

**16. Findings in \_\_\_\_\_ measurements may reflect clinical improvement but cannot directly reflect the progress of muscle fibrosis during follow-up.**

- A. Fibrosis type
  - B. Muscle thickness
  - C. Head tilt angle
  - D. Neck rotation
-

**17. Strong correlations were observed between the percentage of \_\_\_\_\_ seen on MRI and muscle echo intensity.**

- A. Fat free mass
  - B. Muscle hydration
  - C. Intramuscular fat
  - D. All of the above
- 

**18. Animal studies showed muscle echo intensity highly correlated with the extent of fibrosis in affected muscles.**

- A. True
  - B. False
- 

**19. The initial K values of the infants with CMT represented a narrow degree of fibrosis in affected SCM muscles indicating only two different types of fibrosis.**

- A. True
  - B. False
- 

**20. After receiving regular physiotherapy, the CMT infants in this study showed a \_\_\_\_\_ in K values during follow-up on serial sonograms of affected SCM muscles.**

- A. Non-significant increase
  - B. Significant increase
  - C. Non-significant decrease
  - D. Significant decrease
- 

**21. An increase in K value indicates that the MEI for involved muscle approaches that for uninvolved muscle, for overall decreased muscle fibrosis.**

- A. True
  - B. False
- 

**22. Muscle biopsy specimens from patients with neuromuscular disease show common histopathologic findings of atrophied muscle fibers and increased perimysial fibrosis.**

- A. True
  - B. False
- 

**23. Muscle echo intensity has been clinically used to quantify severity of muscle fibrosis in patients with:**

- A. Duchenne muscular dystrophy
  - B. Inflammatory myopathy
  - C. Metabolic myopathy
  - D. Muscle echo intensity has been clinically used to quantify severity of muscle fibrosis in patients with Duchenne muscular dystrophy, inflammatory myopathy, metabolic myopathy, and lumbar radiculopathy
- 

**24. The uninvolved muscle thickness did not change along the follow-up period.**

- A. True
  - B. False
- 

**25. Selective activation of \_\_\_\_\_ caused by the release of insulin growth factor-1 from muscle fibers during passive stretch promotes myosatellite cell proliferation and induces skeletal muscle hypertrophy.**

- A. Protein kinase B
  - B. Growth hormone
  - C. Ghrelin
  - D. Mammalian target of rapamycin complex 1
- 

**26. Stretch-induced antifibrotic effects, as much as the well-known antifibrotic agent \_\_\_\_\_, has been reported in injured gastrocnemius muscles of rats.**

- A. Versican
  - B. Brevican
  - C. Decorin
  - D. Aggrecan
- 

**27. Which of the following may affect the improvement of SCM muscle fibrosis as reflected in the change in K value during follow-up?**

- A. Normal growth and development
  - B. Physiotherapy
  - C. Both normal growth and development and physiotherapy
  - D. Neither normal growth and development nor physiotherapy
- 

**28. This study found an increasing trend of uninvolved muscle thickness during follow-up, with a significant increase at about:**

- A. 1 month
  - B. 3 months
  - C. 6 months
  - D. 12 months
-

**29. Results of this study showed that involved SCM muscle thickness was related to treatment period.**

- A. True
  - B. False
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**30. According to the observations in this study, infants with high initial K value will receive a long treatment course and frequent US examinations.**

- A. True
  - B. False
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