

# Cervical Myelopathy

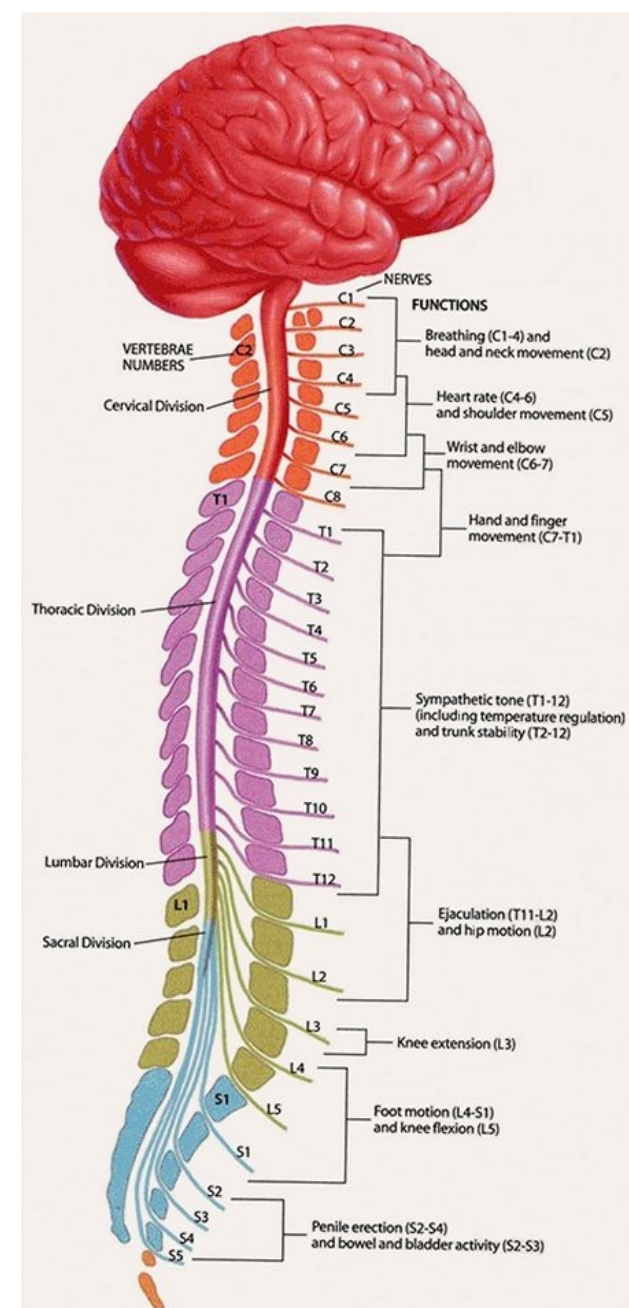
## Evaluation

When evaluating for cervical myelopathy, 8 specific tests should be evaluated.

- Gait should be evaluated by examining any **balance issues**
- **Reflexes** should be examined for hyperreflexia by testing the patellar tendon, Achilles, and biceps
- The Hoffman sign should be evaluated by extending the distal phalanx of the long finger and then release – patient should have a flexion reflex of the thumb or index finger.
- Crossed radial reflex- extension of both biceps and wrists after a biceps reflex test
- Inverted radial reflex- extension of both wrist extension and finger flexion after tapping the brachioradialis
- Finger escape sign- evaluate if the patient can hold ulnar digits in extension and adduction
- **Grip** test- evaluate the ability to repeatedly make a tight fist.

X-ray flexion and extension views, CT myelogram, or an MRI can also be used to evaluate cord and disk views (Donnally, Hanna A., 2022).

## Spinal cord Anatomy



- The cervical vertebrae are the top 7 vertebrae closest to the brain.
- The vertebrae contain the spinal canal, which contains the nerves and spinal cord. This situation provides protection for the spinal cord (Danny, 2020).

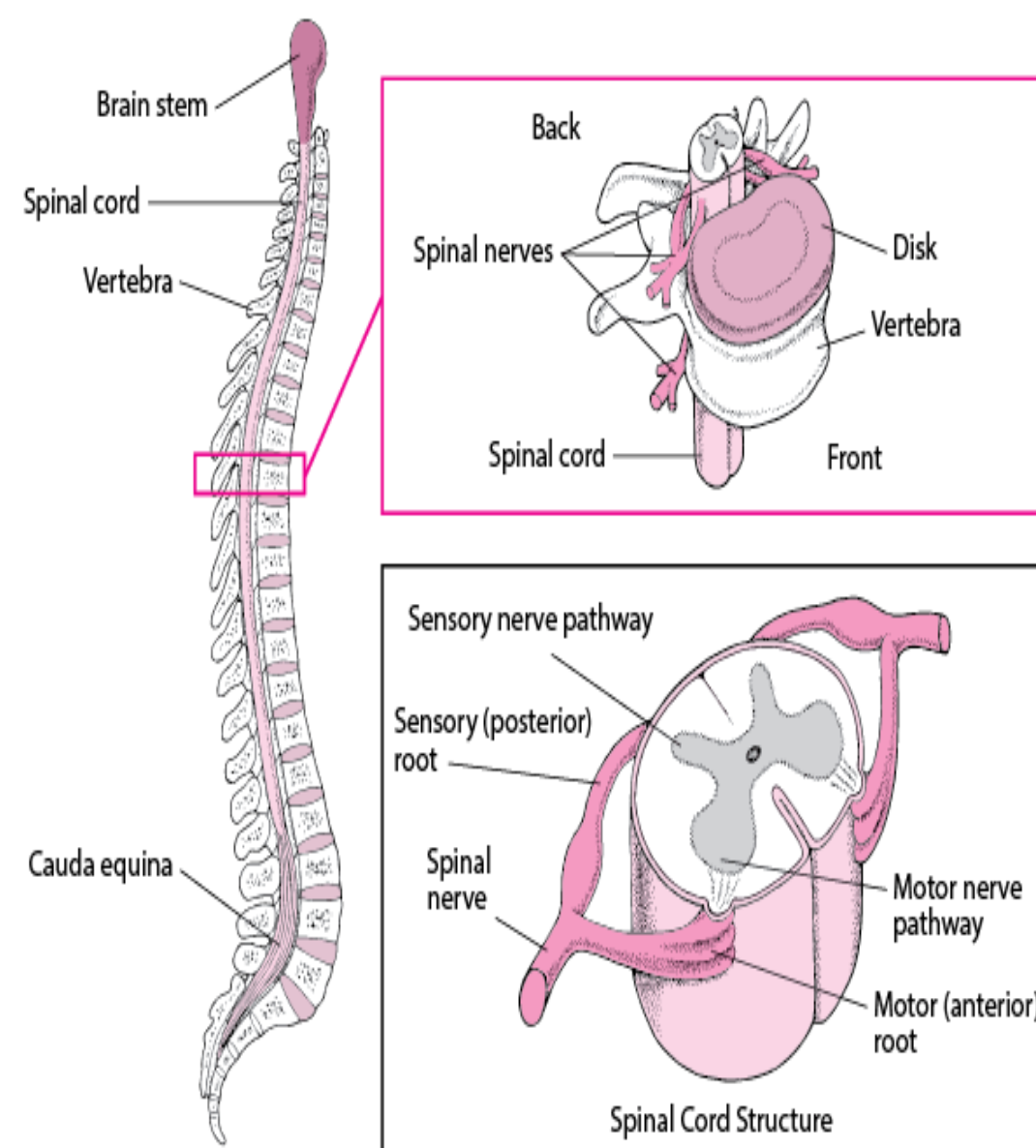
## What is Cervical Myelopathy and what causes it?

Cervical myelopathy is when the spinal cord is compressed at the cervical level. Pain in the neck, tingling, numbness, weakness, balance issues, and reflex changes are symptoms that patients can experience.

Cervical myelopathy can be caused by the hardening of the ligaments surrounding the spinal cord. The soft tissue that connects the vertebrae becomes less flexible and eventually turns into bone. More pressure gets placed on the spinal cord as the ligaments become thicker.

Cervical myelopathy can also be caused by degeneration of the spine. This can be congenital or not. Bulging or herniated disks and bone spurs in the neck can also compress the spinal cord.

Other causes include rheumatoid arthritis of the neck, cervical spine trauma, spinal infections, or spinal tumors or cancers (Johns Hopkins Medicine, 2022).



## Treatment and Prevention

Nonsurgical treatments include anti-inflammatories, physical therapy, ultrasound modalities, and corticosteroid injections. These treatments are only meant to give temporary pain relief.

Surgical treatments include a laminectomy or anterior cervical discectomy and fusion (ACDF). These procedures are meant to increase the spinal cord canal space, so the compression is decreased. Laminectomies are a posterior approach while ACDF's are a anterior approach.

Prevention methods include lifting heavy objects safely, maintain a healthy weight, stop smoking, and work to strengthen muscles in your back and neck (Cleveland Clinic, 2022).

## References

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