

Myelopathy Overview - Bombay Spine Clinic

- Myelopathy (Spinal Cord Compression)

What Is It?

- Myelopathy refers to dysfunction of the spinal cord caused by compression or injury. In adults, the most common cause is cervical myelopathy, where age-related degeneration of the cervical spine leads to narrowing of the spinal canal and compression of the spinal cord.
- Unlike a pinched nerve, which typically affects a single arm or leg, spinal cord compression can affect both the upper and lower limbs and may progressively impair balance, coordination, walking and hand function.
- Myelopathy is an important condition because delayed diagnosis and treatment may result in permanent neurological deficits.
- Common Symptoms

Symptoms often develop gradually and may initially be mistaken for normal ageing.

- Patients may experience:
 - Hand Symptoms
 - Hand clumsiness
 - Difficulty buttoning clothes
 - Difficulty writing
 - Difficulty handling coins or keys
 - Frequent dropping of objects
 - Loss of fine motor skills
- Walking & Balance Symptoms
 - Gait imbalance
 - Feeling unsteady while walking
 - Frequent stumbling
 - Difficulty walking in the dark
 - Reduced walking confidence
- Limb Symptoms
 - Tingling or numbness in the hands
 - Weakness in the arms or legs
 - Stiffness in the legs
- Electric shock sensation down the spine on bending the neck (Lhermitte's phenomenon)

- Advanced Symptoms
- Difficulty climbing stairs
- Significant walking difficulty
- Loss of bladder or bowel control

Causes & Risk Factors

- Common causes include:
- Cervical Spondylosis
- The most common cause of myelopathy in adults.
- Cervical Disc Herniation
- A slipped disc in the neck may compress the spinal cord.
- Ossification of the Posterior Longitudinal Ligament (OPLL)
- Abnormal thickening of spinal ligaments causing canal narrowing.
- Congenital Narrow Spinal Canal
- Some individuals are born with a smaller spinal canal.
- Trauma
- Spinal cord compression following injury.
- Tumors & Infections
- Rarely, spinal tumors or infections may compress the spinal cord.
- Risk factors include:
- Increasing age
- Long-standing cervical spondylosis
- Previous neck injuries
- Congenital spinal canal narrowing
- When Should You Seek Medical Advice?
- Medical evaluation is recommended if you experience:
- Hand clumsiness
- Difficulty buttoning clothes
- Frequent dropping of objects
- Tingling in both hands
- Balance problems
- Unsteady walking
- Progressive weakness
- Difficulty with fine motor activities
- Seek Immediate Medical Attention If:
- Walking rapidly worsens
- Significant weakness develops

- Bladder or bowel control is affected
- Sudden neurological deterioration occurs
- These symptoms may indicate severe spinal cord compression requiring urgent evaluation.
- How Is It Diagnosed?
- Clinical Examination
- A detailed neurological examination is crucial.
- Your doctor may assess:
 - Hand function
 - Balance
 - Walking pattern
 - Reflexes
 - Muscle strength
 - Sensory changes
- X-Ray
- May demonstrate:
 - Cervical spondylosis
 - Alignment abnormalities
 - Degenerative changes
- MRI
- MRI is the most important investigation.
- It helps identify:
 - Spinal cord compression
 - Disc prolapse
 - Canal stenosis
 - Cord signal changes
 - Severity of compression
- CT Scan
- May be useful for evaluating bony stenosis and OPLL.
- Blood Tests
- Usually not required unless infection, inflammatory disease or other systemic conditions are suspected.

Treatment Options

- Non-Surgical Treatment
- Non-surgical treatment may be considered in carefully selected patients with mild symptoms.
- This may include:
 - Activity modification
 - Physiotherapy (under supervision)

- Posture correction
- Regular monitoring
- However, conservative treatment does not remove spinal cord compression.
- Surgical Treatment
- Surgery is commonly recommended when:
- Spinal cord compression is significant

Symptoms are progressive

- Balance problems develop
- Weakness develops
- Functional impairment occurs
- The goal of surgery is to:
- Relieve spinal cord compression
- Prevent further neurological deterioration
- Improve function where possible
- Common procedures include:
- Cervical Decompression Surgery
- Cervical Laminectomy
- Cervical Laminoplasty
- Anterior Cervical Discectomy & Fusion (ACDF)
- Cervical Disc Replacement (selected patients)
- The choice of procedure depends on the underlying pathology and spinal alignment.

Frequently Asked Questions

- 1. What is Myelopathy?
- Myelopathy refers to dysfunction of the spinal cord caused by compression or injury.
- 2. How is Myelopathy different from a pinched nerve?
- A pinched nerve usually affects one limb, whereas spinal cord compression may affect both hands, both legs, balance and coordination.
- 3. Is hand clumsiness a warning sign?
- Yes. Difficulty with buttons, handwriting or dropping objects may be early signs of cervical myelopathy.
- 4. Can Myelopathy affect walking?
- Yes. Gait imbalance and difficulty walking are common symptoms.
- 5. Is Myelopathy serious?
- Yes. Untreated spinal cord compression may result in permanent neurological impairment.
- 6. Can physiotherapy cure Myelopathy?
- Physiotherapy cannot remove spinal cord compression but may help selected patients manage symptoms.
- 7. Does every patient need surgery?

- Not necessarily. However, surgery is often recommended when symptoms are progressive or significant spinal cord compression is present.
- 8. Can Myelopathy worsen over time?
- Yes. Many patients experience gradual progression if compression remains untreated.
- 9. Is MRI necessary?
- MRI is usually essential for confirming the diagnosis and determining the severity of spinal cord compression.
- 10. Can recovery occur after surgery?
- Many patients experience improvement or stabilization after surgery, although recovery depends on the severity and duration of compression.
- Related Conditions
- Cervical Spondylosis
- Slip Disc (Cervical Disc Herniation)
- Lumbar Canal Stenosis
- Peripheral Neuropathy
- Spinal Tumor
- Spinal Tuberculosis
- When Should You Consult a Spine Specialist?
- If you experience hand clumsiness, balance problems, difficulty walking, progressive weakness or other symptoms suggestive of spinal cord compression, early evaluation by a spine specialist is strongly recommended.
- Timely diagnosis and treatment can help prevent permanent neurological damage and preserve function.
- Need Expert Advice?
- Book a consultation with Dr. Siddharth Katkade or upload your MRI/report for review through our Patient Resource Centre.

Need Clinical Evaluation or Second Opinion?

This educational document was prepared by **Dr. Siddharth Katkade**. For appointments or to share MRI scan reports for clinical review, call **+91 88507 73095** or consult at Byculla (E) / Khar (W) clinics.