

Mis Decompression Tubular - Bombay Spine Clinic

- MIS Decompression (Tubular)

What Is This Surgery?

- MIS Decompression (Tubular) is a minimally invasive spine surgery performed to relieve pressure on the spinal nerves caused by narrowing of the spinal canal (Lumbar Canal Stenosis) or other degenerative conditions affecting the spine.
- The goal of the surgery is to create more space for the nerves by removing the structures causing compression while preserving as much of the normal spinal anatomy as possible.
- The procedure is performed through a small incision using specialized tubular retractors and an operating microscope. By gently separating rather than cutting the muscles, the surgery minimizes tissue damage and promotes faster recovery.
- This is a minimally invasive microscopic spine surgery commonly performed for patients suffering from nerve compression, leg pain and walking difficulty due to spinal stenosis.
- Why Is This Surgery Performed?
- This surgery may be recommended for:
 - Lumbar Canal Stenosis
 - Lateral Recess Stenosis
 - Foraminal Stenosis
 - Degenerative Facet Joint Hypertrophy
 - Ligamentum Flavum Hypertrophy
 - Nerve Compression Syndromes
- Common symptoms that may lead to surgery include:
 - Pain in the legs while walking
 - Neurogenic Claudication
 - Leg numbness
 - Tingling sensations
 - Weakness in the legs
 - Difficulty standing for long periods
 - Walking intolerance
 - Relief on sitting or bending forward
- Who Is A Suitable Candidate?
- You may be a suitable candidate if:

- ✓ Symptoms persist despite medications and physiotherapy
- ✓ Walking distance is progressively reducing
- ✓ MRI confirms nerve compression due to spinal stenosis
- ✓ Leg symptoms are affecting daily activities
- ✓ Conservative treatment has failed
- ✓ Quality of life is significantly affected
- ✓ Progressive neurological weakness develops
- How Is The Surgery Performed?
- Step 1
- The procedure is performed under general anesthesia. The patient is positioned face down on a specialized operating table.
- Step 2
- A small skin incision, typically around 18–25 mm, is made over the affected spinal level.
- Step 3
- Specialized tubular retractors are inserted through the muscles, creating a muscle-sparing pathway to the spine.
- Step 4
- Using an operating microscope, the compressed nerves are identified.
- Step 5
- The structures causing nerve compression, such as thickened ligaments, enlarged facet joints or bony overgrowths, are carefully removed.
- Step 6
- Once the nerves are adequately decompressed, the instruments are removed and the incision is closed.
- Most procedures are completed within 60–120 minutes depending on the number of levels involved.
- What Are The Advantages?
- Potential benefits include:
- Small incision
- Less blood loss
- Reduced muscle injury
- Less postoperative pain
- Faster recovery
- Shorter hospital stay
- Earlier mobilization
- Preservation of spinal stability
- Reduced need for pain medications
- Improved walking capacity
- Better quality of life

- Compared to traditional open laminectomy, tubular decompression preserves more normal anatomy and reduces soft tissue disruption.
- What Are The Risks?
- Every surgical procedure carries certain theoretical risks and potential complications. However, every effort is made to minimise these risks through meticulous surgical planning, advanced technology and comprehensive patient optimisation.
- At Bombay Spine Clinic™, MIS Decompression is performed using a high-definition operating microscope, specialised minimally invasive tubular retractors and modern microsurgical instruments. These technologies allow precise decompression of the affected nerves through a small incision while minimising disruption to surrounding muscles and tissues.
- In addition, every patient undergoes a thorough pre-operative assessment. Depending on individual health requirements, this may involve evaluation and optimisation by physicians, cardiologists, anaesthetists and other medical specialists. This multidisciplinary approach helps improve surgical safety, recovery and overall outcomes.
- Potential risks that are discussed with patients include:
 - Infection
 - Bleeding
 - Dural tear (CSF leak)
 - Nerve injury
 - Persistent numbness
 - Persistent weakness
 - Incomplete symptom relief
 - Recurrent symptoms
 - Rare need for revision surgery
- Fortunately, the incidence of significant complications is low when surgery is performed for appropriate indications, following careful patient selection, optimisation and modern minimally invasive surgical principles.
- Preparing For Surgery
 - Before surgery:
 - Clinical evaluation
 - MRI review
 - Blood investigations
 - Medical fitness assessment
 - Medication review
 - Anaesthesia assessment
 - Patients should inform their doctor regarding:
 - Blood thinning medications
 - Diabetes
 - Heart disease
 - Previous surgeries
 - Allergies

- Smoking history
- Smoking cessation is strongly encouraged as it improves healing and recovery.
- What Happens During Hospital Stay?
- Day of Surgery
- Hospital admission
- Surgery

Recovery room observation

- Early mobilization under supervision
- First 24 Hours
- Pain management
- Walking with assistance
- Physiotherapy instructions
- Wound care guidance
- Discharge
- Most patients are discharged within:
- 24–72 hours
- Selected patients may even be discharged earlier depending on recovery.

Recovery After Surgery

- Week 1
- Expected symptoms:
- Mild wound discomfort
- Improvement in leg symptoms
- Walking encouraged
- Light daily activities permitted
- Weeks 2–6
- Progressive increase in walking distance
- Gradual return to daily activities
- Physiotherapy if advised
- Follow-up consultation
- 6 Weeks–3 Months
- Progressive strengthening exercises
- Significant improvement in walking capacity
- Improved function and independence
- Long-Term Recovery
- Most patients experience substantial improvement in walking ability, leg pain and overall quality of life. Maintaining spinal fitness and regular exercise helps sustain long-term benefits.

Frequently Asked Questions

- 1. Why do I need this surgery?
- Because narrowing of the spinal canal is compressing your nerves and causing symptoms such as leg pain, numbness or difficulty walking.
- 2. Are there alternatives to surgery?
- Yes. Many patients improve with medications, physiotherapy, activity modification and epidural injections. Surgery is considered when symptoms persist despite adequate conservative treatment.
- 3. Will I have a large scar?
- No. MIS Tubular Decompression is performed through a small incision, typically around 18–25 mm.
- 4. How long will I stay in hospital?
- Most patients stay in hospital for 1–3 days depending on the extent of surgery and recovery.
- 5. When can I start walking after surgery?
- Most patients are encouraged to start walking within a few hours after surgery under supervision.
- 6. When can I start outdoor walking?
- Indoor walking is encouraged immediately after surgery. Outdoor walking can usually begin after approximately 1 week.
- 7. When can I travel after surgery?
- Short local travel is usually possible after about 2 weeks. Longer journeys and air travel are generally recommended after 6–8 weeks.
- 8. When can I return to work?
- Typical timelines are:
- Work From Home (WFH): Approximately 2 weeks
- Office-Based Work: Approximately 3–4 weeks
- Light Physical Work: Approximately 4–6 weeks
- Heavy Manual Labour: Approximately 8–12 weeks
- 9. When can I drive, exercise, dance or resume sports?
- Driving is usually permitted after approximately 3–4 weeks. Sports, gym workouts, dancing and high-impact activities are generally resumed after 10–12 weeks depending on recovery.
- 10. What is the success rate of MIS Decompression?
- When performed for appropriate indications, MIS Decompression has a high success rate in relieving nerve compression symptoms and improving walking ability. Most patients experience significant improvement in leg pain and quality of life.
- 11. Can the symptoms return?
- While most patients experience long-term relief, degenerative changes in the spine may continue with aging. Maintaining a healthy lifestyle and regular exercise can help reduce recurrence of symptoms.
- Myth vs Fact
- Myth:
- Lumbar Canal Stenosis always requires spinal fusion surgery.
- Fact:

- Many patients with spinal stenosis can be effectively treated with decompression surgery alone without the need for spinal fusion.
- Myth:
- Walking should be avoided after spine surgery.
- Fact:
- Early walking is encouraged and forms an important part of the recovery process.
- When Should I Contact My Surgeon After Surgery?
- Contact your surgeon if you experience:
- Fever
- Increasing wound discharge
- Progressive weakness
- Severe leg pain
- Difficulty passing urine
- New numbness
- Persistent headache after surgery
- Related Conditions
- Lumbar Canal Stenosis
- Lateral Recess Stenosis
- Foraminal Stenosis
- Neurogenic Claudication
- Related Procedures
- Microscopic Discectomy (Tubular)
- Biportal Endoscopic Decompression
- MIS TLIF (Tubular)
- Need Expert Advice?
- If you have been advised spine surgery or would like a second opinion regarding your MRI findings, you may schedule a consultation or upload your MRI for specialist review.
- Dr. Siddharth Katkade Consultant Spine Surgeon
- Bombay Spine Clinic™

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.