

Spinal Infection Surgery - Bombay Spine Clinic

- Spinal Infection Surgery
- Surgery for Spondylodiscitis, Vertebral Osteomyelitis & Epidural Abscess

What Is This Surgery?

- Spinal Infection Surgery is performed to treat infections affecting the vertebrae, intervertebral discs, spinal canal or surrounding soft tissues when non-surgical treatment alone is insufficient.
- Spinal infections can occur due to bacterial, fungal or, less commonly, other infectious organisms. These infections may involve the disc space (Discitis), vertebrae (Osteomyelitis), epidural space (Epidural Abscess) or a combination of these structures.
- The goals of surgery are to:
 - Remove infected tissue
 - Relieve pressure on the spinal cord and nerves
 - Obtain tissue samples for diagnosis
 - Stabilize the spine if instability is present
 - Correct deformity
 - Facilitate recovery alongside appropriate antibiotic treatment
- Depending on the location and severity of infection, surgery may be performed using minimally invasive techniques (MIS), tubular surgery or conventional open surgery.
- Why Is This Surgery Performed?
 - This surgery may be recommended for:
 - Spondylodiscitis
 - Vertebral Osteomyelitis
 - Epidural Abscess
 - Persistent Spinal Infection despite antibiotics
 - Neurological Deficits due to infection
 - Spinal Instability caused by infection
 - Progressive Vertebral Destruction
 - Severe Mechanical Back Pain
 - Diagnostic Uncertainty requiring biopsy
 - Common symptoms that may lead to surgery include:
 - Persistent severe back pain
 - Fever

- Night sweats
- Unexplained weight loss
- Difficulty walking
- Leg weakness
- Numbness
- Progressive spinal deformity
- Failure to improve with medical treatment
- Who Is A Suitable Candidate?
- You may be a suitable candidate if:
 - ✓ Infection is causing spinal instability
 - ✓ Neurological symptoms have developed
 - ✓ Significant vertebral destruction is present
 - ✓ MRI shows spinal cord or nerve compression
 - ✓ Antibiotic treatment alone has failed
 - ✓ Severe pain is limiting mobility
 - ✓ A tissue diagnosis (biopsy) is required
 - ✓ Progressive deformity is developing
- How Is The Surgery Performed?
- Step 1
 - The procedure is performed under general anesthesia.
- Step 2
 - The affected spinal level is identified using advanced imaging guidance.
- Step 3
 - The infected tissue, pus collection or abscess is carefully accessed.
- Step 4
 - Samples are collected and sent for microbiological and pathological analysis to identify the infecting organism.
- Step 5
 - The infected and damaged tissue is thoroughly cleaned and removed (debridement).
- Step 6
 - If the spinal cord or nerves are compressed, decompression is performed.
- Step 7
 - If spinal instability is present, fixation using screws and rods may be required.
- Step 8
 - The wound is irrigated, cleaned and closed.
 - The exact surgical approach depends on the location, severity and extent of infection.
- What Are The Advantages?
- Potential benefits include:

- Removal of infected tissue
- Relief of spinal cord or nerve compression
- Accurate diagnosis through tissue sampling
- Reduction in pain
- Improved mobility
- Restoration of spinal stability
- Prevention of progressive deformity
- Facilitation of targeted antibiotic treatment
- Improved quality of life
- Surgery often complements antibiotic therapy and helps achieve infection control in complex cases.
- 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 planning, advanced technology and comprehensive patient optimisation.
- At Bombay Spine Clinic™, Spinal Infection Surgery is performed using modern imaging guidance, microsurgical techniques and minimally invasive approaches whenever appropriate. These techniques allow effective infection clearance while minimizing tissue disruption.
- In addition, every patient undergoes a multidisciplinary assessment involving infectious disease specialists, physicians, cardiologists, anaesthetists and other specialists when required. This collaborative approach helps optimise patient safety and improve outcomes.
- Potential risks that are discussed with patients include:
 - Infection recurrence
 - Bleeding
 - Dural tear (CSF leak)
 - Nerve injury
 - Persistent pain
 - Persistent neurological symptoms
 - Implant-related complications (if fixation is performed)
 - Delayed healing
 - Failure to completely eradicate infection
 - Rare need for additional surgery
- Fortunately, the incidence of major complications is reduced through careful patient selection, targeted antimicrobial therapy and meticulous surgical technique.
- Preparing For Surgery
 - Before surgery:
 - Clinical evaluation
 - MRI review
 - CT scan review
 - Blood investigations

- Infection markers (ESR, CRP)
- Blood cultures (if required)
- Medical fitness assessment
- Medication review
- Anaesthesia assessment
- Patients should inform their doctor regarding:
 - Diabetes
 - Heart disease
 - Kidney disease
 - Previous infections
 - Current antibiotic treatment
 - Previous surgeries
 - Allergies
- What Happens During Hospital Stay?
- Day of Surgery
- Hospital admission
- Surgery

Recovery room observation

- Pain management
- Monitoring of neurological function
- First 24–72 Hours
- Assisted mobilization
- Physiotherapy guidance
- Wound care
- Monitoring of infection markers
- Review of culture reports
- Discharge
- Most patients are discharged within:
 - 3–7 days
 - depending on the severity of infection, overall medical condition and recovery.
 - Some patients may require prolonged antibiotic therapy after discharge.

Recovery After Surgery

- Week 1
- Expected symptoms:
 - Surgical site discomfort

- Improvement in infection-related pain
- Walking encouraged under supervision
- Continued antibiotic therapy
- Weeks 2–6
- Follow-up consultations
- Review of culture results
- Monitoring of ESR and CRP
- Gradual increase in activity
- 6 Weeks–3 Months
- Continued recovery
- Progressive strengthening exercises
- Improvement in mobility and function
- Long-Term Recovery

Recovery depends on the severity of infection, overall health and response to antibiotic therapy.

- Most patients experience significant improvement in pain, function and quality of life following successful infection control.

Frequently Asked Questions

- 1. Why do I need this surgery?
- Because the infection is causing nerve compression, spinal instability, severe pain or is not responding adequately to medical treatment alone.
- 2. Can spinal infections be treated without surgery?
- Many spinal infections can be treated with antibiotics alone. Surgery is generally recommended when there is instability, neurological compromise, abscess formation or failure of conservative treatment.
- 3. Will tissue samples be taken during surgery?
- Yes. Tissue samples are usually collected during surgery to identify the infecting organism and guide targeted antibiotic treatment.
- 4. How long will I stay in hospital?
- Most patients remain in hospital for approximately 3–7 days, although this may vary depending on the severity of infection and medical condition.
- 5. When can I start walking after surgery?
- Most patients are encouraged to begin walking within 24–48 hours under supervision, depending on the extent of surgery and overall condition.
- 6. When can I start outdoor walking?
- Outdoor walking is generally started after approximately 1–2 weeks depending on comfort and recovery.
- 7. When can I travel after surgery?

- Short local travel is usually possible after approximately 2–3 weeks. Long-distance travel is generally recommended after 6–8 weeks.
- 8. When can I return to work?
- Typical timelines are:
 - Work From Home (WFH): Approximately 3–4 weeks
 - Office-Based Work: Approximately 6–8 weeks
 - Light Physical Work: Approximately 8–12 weeks
 - Heavy Manual Labour: Individualized based on recovery and infection control
- 9. When can I drive, exercise, dance or resume sports?
- Driving is generally permitted after 4–6 weeks.
- Sports, gym workouts and high-impact activities are usually resumed after 3–6 months depending on recovery and spinal stability.
- 10. What is the success rate of Spinal Infection Surgery?
- When performed for appropriate indications and combined with targeted antibiotic therapy, Spinal Infection Surgery has a high success rate in controlling infection, relieving pain and improving function.
- The outcome depends on factors such as the type of infection, severity of disease, neurological status and overall health.
- 11. Can the infection come back?
- Recurrence is uncommon but can occur in certain situations. Careful follow-up, completion of antibiotic treatment and regular monitoring help reduce this risk.
- Myth vs Fact
- Myth:
 - A spinal infection always causes permanent disability.
- Fact:
 - Early diagnosis and appropriate treatment can successfully control infection and allow many patients to return to normal activities.
- Myth:
 - Antibiotics alone can treat every spinal infection.
- Fact:
 - While many infections respond to antibiotics, some patients require surgery to remove infected tissue, decompress nerves or stabilize the spine.
- When Should I Contact My Surgeon After Surgery?
- Contact your surgeon if you experience:
 - Fever
 - Increasing wound discharge
 - Severe back pain
 - Progressive weakness
 - Difficulty walking
 - New numbness

- Persistent wound redness
- Any worsening of symptoms
- Related Conditions
- Spinal Infection
- Spondylodiscitis
- Vertebral Osteomyelitis
- Epidural Abscess
- Spinal Tuberculosis (TB Spine)
- Related Procedures
- Fracture Fixation Surgery
- Multilevel Laminectomy Decompression & Fixation (MLDF)
- Spino-Pelvic Fixation Surgery
- Need Expert Advice?
- If you have been diagnosed with a spinal infection, persistent unexplained back pain, or have been advised spine surgery for infection, you may schedule a consultation or upload your MRI, CT scan and blood reports for specialist review.
- Dr. Siddharth KatkadeConsultant 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.