

Spinal Tuberculosis - Bombay Spine Clinic

- Spinal Tuberculosis (TB Spine / Koch's Spine / Pott's Spine)

What Is It?

- Spinal Tuberculosis (TB Spine), also known as Koch's Spine or Pott's Spine, is a form of tuberculosis that affects the bones and joints of the spine. It occurs when tuberculosis bacteria spread from another part of the body, usually the lungs, to the vertebrae through the bloodstream.
- TB Spine is one of the most common forms of skeletal tuberculosis and remains an important cause of back pain, spinal deformity and neurological complications in developing countries.
- If left untreated, spinal tuberculosis can cause destruction of vertebral bones, spinal instability, deformity (kyphosis) and compression of nerves or the spinal cord.
- Early diagnosis and treatment are crucial for preventing permanent disability.
- Common Symptoms

Symptoms often develop gradually over weeks or months.

- Pain Symptoms
- Persistent back pain
- Neck pain (when the cervical spine is involved)
- Pain that progressively worsens
- Pain that may be present even at rest
- Night pain
- Constitutional Symptoms
- Low-grade fever
- Night sweats
- Loss of appetite
- Unexplained weight loss
- Fatigue
- Spine-Related Symptoms
- Localized spinal tenderness
- Muscle spasm
- Difficulty walking
- Progressive spinal deformity
- Development of a hump (Kyphosis)

- Neurological Symptoms
- If nerve or spinal cord compression develops:
- Tingling or numbness
- Weakness in the legs
- Difficulty walking
- Gait imbalance
- Bladder or bowel dysfunction

Causes & Risk Factors

- Spinal tuberculosis is caused by infection with *Mycobacterium tuberculosis*.
- The infection usually reaches the spine through the bloodstream from another site in the body.
- Risk Factors
- Previous tuberculosis infection
- Close contact with TB patients
- Weakened immune system
- Diabetes mellitus
- Malnutrition
- HIV infection
- Chronic kidney disease
- Long-term immunosuppressive therapy
- TB Spine can occasionally occur even in individuals without active lung disease.
- When Should You Seek Medical Advice?
- Medical evaluation is recommended if:
- Back pain persists for several weeks
- Pain progressively worsens
- Fever accompanies back pain
- Unexplained weight loss occurs
- Night sweats develop
- Walking becomes difficult
- Spinal deformity develops
- Seek Immediate Medical Attention If:
- Weakness develops in the legs
- Difficulty walking occurs
- Bladder or bowel symptoms develop
- Progressive neurological symptoms appear
- These may indicate spinal cord compression requiring urgent treatment.
- How Is It Diagnosed?

- Clinical Examination
- Your doctor will assess:
 - Spinal tenderness
 - Neurological status
 - Presence of deformity
 - Signs of systemic infection
- X-Ray
- May demonstrate:
 - Vertebral destruction
 - Disc space narrowing
 - Spinal deformity
 - Collapse of vertebral bodies
- However, early disease may not always be visible on X-rays.
- MRI
- MRI is the most important imaging investigation.
- It helps identify:
 - Vertebral infection
 - Abscess formation
 - Nerve compression
 - Spinal cord involvement
 - Extent of disease
- CT Scan
- Useful for evaluating bone destruction and planning biopsy procedures.
- Blood Tests
- May include:
 - ESR
 - CRP
 - Complete blood count
 - Tuberculosis-related investigations
- Biopsy
- A biopsy may be performed to confirm the diagnosis and identify the causative organism.
- Tests on biopsy samples may include:
 - Histopathology
 - TB PCR / GeneXpert
 - Culture studies

Treatment Options

- Non-Surgical Treatment
- The cornerstone of treatment is Anti-Tubercular Therapy (ATT).

Treatment typically includes:

- Anti-tubercular medications
- Nutritional support
- Physiotherapy
- Activity modification
- Regular clinical and radiological monitoring
- Most patients respond well when diagnosed early and treated appropriately.
- Surgical Treatment
- Surgery may be required when:
 - Significant spinal cord compression is present
 - Progressive neurological deficits develop
 - Severe spinal instability occurs
 - Significant deformity develops
 - Large abscesses are present

Diagnosis remains uncertain

- Common surgical procedures include:
 - Decompression Surgery
 - Abscess Drainage
 - Spinal Stabilization Surgery
 - Deformity Correction Surgery
- The goal is to remove pressure on neural structures, restore stability and correct deformity when necessary.

Frequently Asked Questions

- 1. What is TB Spine?
- TB Spine is a tuberculosis infection affecting the vertebrae and spinal structures.
- 2. Is TB Spine contagious?
- The spinal infection itself is not directly contagious. However, patients may have associated pulmonary tuberculosis, which can be infectious.
- 3. Can TB Spine cause paralysis?
- Yes. Untreated spinal tuberculosis may compress the spinal cord and cause weakness or paralysis.
- 4. Is surgery always necessary?
- No. Many patients recover successfully with anti-tubercular medications alone.
- 5. How long does treatment take?

Treatment duration varies depending on the severity and response to therapy, often requiring several months of medication.

- 6. Can TB Spine cause a spinal deformity?
- Yes. Vertebral destruction may lead to kyphosis and spinal deformity.
- 7. Is MRI necessary?
- MRI is extremely useful because it helps assess the extent of infection and detect spinal cord compression.
- 8. What is a spinal abscess?
- An abscess is a collection of infected material that may form around the spine and occasionally require drainage.
- 9. Can TB Spine recur?
- Recurrence is uncommon when treatment is completed appropriately, but regular follow-up is important.
- 10. When should I suspect TB Spine?
- Persistent back pain associated with fever, weight loss, night sweats or neurological symptoms should raise suspicion.
- Related Conditions
 - Spinal Infection
 - Spinal Tumor
 - Spinal Fracture
 - Kyphosis
 - Myelopathy
 - Osteoporosis
- When Should You Consult a Spine Specialist?
- If you have persistent back pain, unexplained weight loss, fever, night sweats, spinal deformity or neurological symptoms, early evaluation is strongly recommended.
- Prompt diagnosis and treatment can prevent spinal deformity, neurological complications and long-term disability.
- Need Expert Advice?
- Book a consultation with Dr. Siddharth Katkade or upload your MRI, CT scan or reports 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.