

Spino Pelvic Fixation Surgery - Bombay Spine Clinic

- Spino-Pelvic Fixation Surgery
- Advanced Stabilization Surgery for Severe Spinal Instability, Sacral Fractures & Complex Spinal Disorders

What Is This Surgery?

- Spino-Pelvic Fixation Surgery is an advanced spinal stabilization procedure performed when standard spinal fixation is insufficient to provide adequate stability.
- The surgery involves extending spinal fixation into the pelvis using specialized pelvic fixation techniques such as iliac screws or S2-Alar-Iliac (S2AI) screws. This creates a strong foundation for the spinal construct and helps support the spine during healing and long-term recovery.
- The goals of the surgery are to:
 - Restore spinal stability
 - Correct spinal deformity
 - Protect neurological structures
 - Improve posture and balance
 - Relieve pain
 - Enable early mobilization
 - Prevent implant failure
- This procedure is commonly performed for severe spinal deformities, sacral fractures, spino-pelvic dissociation, high-grade spondylolisthesis, long-segment spinal reconstructions and revision spine surgeries.
- Why Is This Surgery Performed?
 - This surgery may be recommended for:
 - Sacral Fractures
 - Spino-Pelvic Dissociation
 - U-Type Sacral Fractures
 - Severe Spinal Instability
 - High-Grade Spondylolisthesis
 - Adult Spinal Deformity
 - Long-Segment Spinal Fusion
 - Revision Spine Surgery
 - Failed Previous Spinal Instrumentation
 - Pelvic Obliquity and Complex Deformities
 - Common symptoms that may lead to surgery include:

- Severe back pain
- Pelvic pain
- Difficulty standing
- Difficulty walking
- Progressive spinal deformity
- Neurological weakness
- Loss of balance
- Functional disability
- Instability-related pain
- Who Is A Suitable Candidate?
- You may be a suitable candidate if:
 - ✓ Significant spinal instability is present
 - ✓ A sacral fracture has resulted in instability
 - ✓ Long spinal constructs require pelvic support
 - ✓ Severe deformity correction is planned
 - ✓ Previous spinal surgery has failed
 - ✓ Progressive neurological symptoms are present
 - ✓ Walking and daily activities are significantly affected
 - ✓ Conservative treatment is unlikely to provide adequate stability
- How Is The Surgery Performed?
- Step 1
 - The procedure is performed under general anesthesia.
- Step 2
 - The patient is positioned appropriately on a specialized operating table.
- Step 3
 - Advanced imaging guidance is used to accurately identify spinal and pelvic anatomy.
- Step 4
 - Pedicle screws are inserted into the vertebrae at the planned spinal levels.
- Step 5
 - Specialized pelvic fixation screws (such as iliac screws or S2Al screws) are inserted into the pelvis.
- Step 6
 - Rods are connected between the spinal and pelvic screws to create a stable construct.
- Step 7
 - If required, decompression of nerves or correction of spinal deformity is performed.
- Step 8
 - Bone grafting and fusion procedures are carried out when indicated.
- Step 9

- The wounds are closed and sterile dressings are applied.
- The duration of surgery depends on the complexity of the condition, extent of fixation and associated procedures.
- What Are The Advantages?
- Potential benefits include:
 - Powerful spinal stabilization
 - Improved spinal alignment
 - Better deformity correction
 - Protection against implant failure
 - Improved balance and posture
 - Enhanced walking ability
 - Reduced pain
 - Improved quality of life
 - Long-term construct durability
 - Facilitation of successful spinal fusion
- Spino-pelvic fixation provides the strongest foundation for complex spinal reconstructions when standard spinal fixation alone may not be sufficient.
- 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™, Spino-Pelvic Fixation Surgery is performed using advanced spinal navigation systems, modern instrumentation, intraoperative imaging guidance and contemporary spinal reconstruction techniques. These technologies help improve the accuracy of implant placement and overall surgical safety.
- In addition, every patient undergoes a detailed 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
 - Implant-related complications
 - Screw loosening or breakage
 - Failure of fusion
 - Persistent pain
 - Adjacent segment degeneration
 - Medical complications related to major surgery

- Rare need for revision surgery
- Fortunately, careful patient selection, modern surgical techniques and comprehensive perioperative care help minimise these risks.
- Preparing For Surgery
- Before surgery:
 - Clinical evaluation
 - MRI review
 - CT scan review
 - Standing X-rays
 - Blood investigations
 - Medical fitness assessment
 - Medication review
 - Anaesthesia assessment
- Patients should inform their doctor regarding:
 - Blood thinning medications
 - Osteoporosis
 - Diabetes
 - Heart disease
 - Previous spinal surgeries
 - Allergies
 - Smoking history
- Smoking cessation is strongly encouraged as it improves bone healing and fusion rates.
- What Happens During Hospital Stay?
 - Day of Surgery
 - Hospital admission
 - Surgery

Recovery room observation

- Pain management
- Neurological monitoring
- First 24–72 Hours
- Assisted mobilization
- Physiotherapy guidance
- Breathing exercises
- Wound care
- Functional rehabilitation
- Discharge
- Most patients are discharged within:

- 4–7 days
- depending on the complexity of surgery and overall recovery.

Recovery After Surgery

- Week 1
- Expected symptoms:
- Surgical site discomfort
- Improvement in stability-related pain
- Assisted walking
- Gradual increase in mobility
- Weeks 2–6
- Progressive walking programme
- Physiotherapy
- Improvement in functional independence
- Follow-up consultations
- 6 Weeks–3 Months
- Progressive strengthening exercises
- Improvement in balance and endurance
- Return to routine daily activities
- Long-Term Recovery
- Fusion and recovery continue over several months. Most patients experience substantial improvement in pain, posture, mobility and quality of life.
- Maintaining good bone health, spinal fitness and adherence to rehabilitation protocols contributes to long-term success.

Frequently Asked Questions

- 1. Why do I need this surgery?
- Because your spinal condition requires stronger stabilization than standard spinal fixation alone can provide.
- 2. Are there alternatives to surgery?
- The alternatives depend on the underlying condition. However, severe instability, deformity or complex fractures often require surgical stabilization to achieve satisfactory outcomes.
- 3. Will I have a large scar?
- The size of the incision depends on the complexity of surgery and the number of spinal levels being treated. Your surgeon will discuss the planned approach with you.
- 4. How long will I stay in hospital?
- Most patients remain in hospital for approximately 4–7 days.
- 5. When can I start walking after surgery?
- Most patients begin assisted walking within 24–48 hours under supervision.

- 6. When can I start outdoor walking?
- Outdoor walking is generally started after approximately 1–2 weeks depending on 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 4 weeks
 - Office-Based Work: Approximately 6–8 weeks
 - Light Physical Work: Approximately 8–12 weeks
 - Heavy Manual Labour: Approximately 4–6 months
- 9. When can I drive, exercise, dance or resume sports?
- Driving is generally permitted after 6 weeks.
- Sports, gym workouts, dancing and high-impact activities are typically resumed after 4–6 months depending on recovery, fusion progress and your surgeon's advice.
- 10. What is the success rate of Spino-Pelvic Fixation Surgery?
- When performed for appropriate indications, Spino-Pelvic Fixation Surgery has a high success rate in restoring stability, correcting deformity and improving function.
- Most patients experience significant improvement in pain, mobility and overall quality of life.
- 11. Will the screws and rods remain permanently?
- Yes. In most patients, the implants remain permanently and do not require removal unless a specific problem develops.
- Myth vs Fact
- Myth:
 - Pelvic fixation means I will not be able to walk normally again.
- Fact:
 - The purpose of pelvic fixation is to restore stability and improve mobility. Most patients are encouraged to begin walking early during recovery.
- Myth:
 - If fixation extends into the pelvis, daily activities become impossible.
- Fact:
 - Following recovery and rehabilitation, most patients are able to return to independent daily activities and enjoy significant improvements in function and quality of life.
- When Should I Contact My Surgeon After Surgery?
- Contact your surgeon if you experience:
 - Fever
 - Increasing wound discharge
 - Severe back or pelvic pain
 - Progressive weakness

- Difficulty passing urine
- New numbness
- Significant wound swelling
- Sudden worsening of symptoms
- Related Conditions
- Sacral Fracture
- Spino-Pelvic Dissociation
- High-Grade Spondylolisthesis
- Adult Spinal Deformity
- Failed Back Surgery Syndrome
- Related Procedures
- Fracture Fixation Surgery
- Multilevel Laminectomy Decompression & Fixation (MLDF)
- Scoliosis Surgery
- Kyphosis Surgery
- Need Expert Advice?
- If you have been advised complex spinal reconstruction, pelvic fixation surgery or would like a second opinion regarding your MRI, CT scan or X-rays, you may schedule a consultation or upload your imaging studies 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.