BOMBAY SPINE CLINIC

Dr. Siddharth Katkade • Consultant Spine Surgeon

MBBS, MS, DNB, FASSI (Germany, UK – AO Spine)

Appointments & Helpline: +91 88507 73095
Email: siddharthkatkade@gmail.com
Clinics: Masina Hospital, Byculla (E) & Khar (W), Mumbai
Website: bombayspineclinic.com

Disc Replacement - Bombay Spine Clinic

- Cervical Disc Replacement (Artificial Cervical Disc Replacement)
- Motion-Preserving Surgery for Cervical Slip Disc, Cervical Radiculopathy & Selected Patients with Cervical Disc Disease

What Is This Surgery?

- Cervical Disc Replacement (CDR), also known as Artificial Cervical Disc Replacement (ACDR), is an advanced motion-preserving cervical spine surgery performed to treat a damaged cervical disc that is compressing a spinal nerve or the spinal cord.
- Unlike Anterior Cervical Discectomy and Fusion (ACDF), where the affected spinal segment is fused, Cervical Disc Replacement removes the diseased disc and replaces it with a specially designed artificial disc that preserves movement at the operated level.
- The goals of the surgery are to:
- Remove the damaged cervical disc
- Relieve pressure on the spinal cord and nerve roots
- Reduce neck pain and arm pain
- Improve numbness and weakness
- Preserve normal neck movement
- Maintain spinal alignment
- Reduce stress on adjacent spinal levels
- Enable faster recovery while maintaining natural motion
- The surgery is performed through a small incision at the front of the neck using microsurgical techniques and specialised instruments.
- For carefully selected patients, Cervical Disc Replacement offers an excellent alternative to fusion surgery by maintaining movement while effectively relieving nerve compression.
- Why Is This Surgery Performed?
- This surgery may be recommended for:
- Cervical Slip Disc (Cervical Disc Herniation)
- Cervical Radiculopathy
- Soft Disc Herniation
- Single-Level or Selected Two-Level Cervical Disc Disease
- Cervical Foraminal Stenosis
- Persistent Cervical Nerve Compression
- Degenerative Cervical Disc Disease (selected patients)

- Common symptoms that may lead to surgery include:
- Persistent neck pain
- Pain radiating into one or both arms
- Tingling or numbness in the fingers
- Weakness in the shoulder, arm or hand
- Difficulty lifting objects
- Burning or electric shock-like arm pain

Symptoms affecting work, sleep and daily activities

- Failure of conservative treatment
- This procedure is best suited for patients with nerve root compression who wish to preserve neck mobility and meet the appropriate selection criteria.
- Who Is A Suitable Candidate?
- You may be a suitable candidate if:
- ✓ Symptoms persist despite medications and physiotherapy.
- ✓ MRI confirms cervical disc herniation compressing a nerve.
- ✓ Neck movement is well preserved.
- ✓ Significant cervical instability is absent.
- ✓ Severe facet joint arthritis is not present.
- ✓ Progressive neurological weakness develops.
- ✓ Quality of life is significantly affected.
- ✓ You are medically fit for surgery.
- Not every patient is suitable for Cervical Disc Replacement. Your spine surgeon will determine whether Disc Replacement or ACDF is the better option based on your MRI findings, spinal alignment and overall cervical spine health.
- How Is The Surgery Performed?
- Step 1
- The procedure is performed under general anesthesia. The patient lies comfortably on the operating table with the neck positioned appropriately.
- Step 2
- A small horizontal skin incision (approximately 3–5 cm) is made along a natural skin crease on the front of the neck.
- Step 3
- The muscles, windpipe (trachea), food pipe (oesophagus) and major blood vessels are gently separated—not cut—to safely access the cervical spine. The affected disc level is confirmed using intraoperative imaging.
- Step 4
- The damaged cervical disc is completely removed. Bone spurs and structures compressing the spinal cord or nerves are carefully excised to achieve complete decompression.

- A specially designed artificial cervical disc is then inserted into the disc space. The implant is carefully positioned to restore normal disc height, maintain spinal alignment and preserve movement at the operated level.
- Step 5
- After confirming satisfactory implant position and adequate decompression, the wound is closed with cosmetic sutures.
- Most Cervical Disc Replacement procedures are completed within 1–2 hours, depending on the number of spinal levels treated.
- What Are The Advantages?
- Potential benefits include:
- Small cosmetically placed incision
- Preservation of normal neck movement
- No spinal fusion required
- Reduced stress on adjacent spinal levels
- Excellent relief of arm pain
- Improvement in numbness and weakness
- Faster functional recovery
- Less postoperative neck stiffness
- Early mobilisation
- Shorter hospital stay
- Quicker return to work
- Maintenance of natural spinal biomechanics
- Improved quality of life
- For appropriately selected patients, Cervical Disc Replacement combines effective nerve decompression with preservation of spinal motion.
- 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™, Cervical Disc Replacement is performed using modern microsurgical techniques, premium artificial disc implants and advanced imaging guidance. These technologies allow accurate implant placement while preserving normal spinal movement and ensuring optimal decompression of the spinal cord and nerve roots.
- Every patient undergoes a comprehensive pre-operative assessment. Depending on individual health requirements, optimisation may involve physicians, cardiologists, anaesthetists and other specialists. This multidisciplinary approach improves surgical safety, facilitates recovery and enhances long-term outcomes.
- Potential risks discussed with patients include:
- Infection
- Bleeding
- Temporary swallowing discomfort

- Temporary voice hoarseness
- Dural tear (rare)
- Nerve injury
- Implant malposition
- Implant wear or loosening (rare)
- Persistent symptoms
- Heterotopic ossification (bone formation around the artificial disc)
- Rare need for revision surgery
- Fortunately, significant complications are uncommon when surgery is performed for appropriate indications using modern surgical techniques.
- Preparing For Surgery
- Before surgery:
- Clinical evaluation
- MRI review
- Dynamic cervical X-rays
- CT scan (if required)
- Blood investigations
- Medical fitness assessment
- Medication review
- Anaesthesia assessment
- Patients should inform their doctor regarding:
- Blood thinning medications
- Diabetes
- Heart disease
- Previous neck surgeries
- Allergies
- Smoking history
- Smoking cessation is strongly encouraged to optimise healing and long-term implant performance.
- What Happens During Hospital Stay?
- Day of Surgery
- Hospital admission
- Surgery

Recovery room observation

- Pain management
- Early neurological assessment
- First 24 Hours
- Assisted walking

- Soft diet as tolerated
- Physiotherapy guidance
- Wound care instructions
- Discharge
- Most patients are discharged within:
- 24–48 hours
- depending on recovery and the number of spinal levels operated.

Recovery After Surgery

- Week 1
- Expected symptoms:
- Mild neck discomfort
- Temporary swallowing difficulty in some patients
- Walking encouraged
- Light daily activities permitted
- Weeks 2–6
- Progressive neck mobility exercises
- Gradual increase in daily activities
- Follow-up consultation
- Physiotherapy if advised
- 6 Weeks–3 Months
- Progressive strengthening exercises
- Return to routine activities
- Restoration of normal neck function
- Long-Term Recovery
- Most patients experience excellent relief of arm pain while maintaining normal neck movement. Regular neck exercises, good posture and ergonomic habits help maintain long-term spinal health.
- When Can I Return To Work?
- Occupation
- Approximate Timeline
- Work From Home
- 2 weeks
- Desk Job
- 2–4 weeks
- Light Physical Work
- 4–6 weeks
- Heavy Manual Labour
- 8–12 weeks

- Driving
- 2–3 weeks
- Sports & High-Impact Activities
- 10–12 weeks

Frequently Asked Questions

- 1. Why do I need this surgery?
- Because your cervical disc is compressing a nerve and causing persistent arm pain, numbness or weakness. Cervical Disc Replacement relieves nerve compression while preserving movement at the operated level.
- 2. Are there alternatives to surgery?
- Yes. Many patients improve with medications, physiotherapy and activity modification. If surgery is required, ACDF may also be an alternative depending on your spinal condition.
- 3. Will I have a large scar?
- No. The incision is usually 3–5 cm and is placed within a natural skin crease for an excellent cosmetic appearance.
- 4. How long will I stay in hospital?
- Most patients remain in hospital for approximately 24–48 hours.
- 5. When can I start walking?
- Walking usually begins within a few hours after surgery under supervision.
- 6. When can I climb stairs?
- Most patients can safely climb stairs before discharge.
- 7. When can I drive?
- Driving is generally permitted after approximately 2–3 weeks, once neck movements are comfortable and you are no longer taking strong pain medications.
- 8. When can I return to work?
- Most office workers return within 2–4 weeks, while physically demanding occupations generally require approximately 8–12 weeks.
- 9. What is the success rate?
- When performed for appropriate indications, Cervical Disc Replacement has an excellent success rate in relieving arm pain and preserving neck motion. Most patients experience significant improvement in pain, neurological function and overall quality of life.
- 10. Will the artificial disc need to be replaced?
- Modern cervical disc implants are designed for long-term durability. In most patients, the implant remains functional for many years and does not require replacement unless a specific problem develops.
- Myth vs Fact
- Myth:
- Artificial discs are experimental.
- Fact:

- Cervical Disc Replacement is a well-established procedure with excellent long-term clinical outcomes in carefully selected patients.
- Myth:
- Every patient with a cervical slipped disc is suitable for Disc Replacement.
- Fact:
- Not every patient is a candidate. Factors such as spinal instability, severe arthritis, osteoporosis, multilevel disease and spinal alignment influence whether Disc Replacement or ACDF is the most appropriate treatment.
- When Should I Contact My Surgeon After Surgery?
- Contact your surgeon if you experience:
- Fever
- Increasing wound discharge
- Difficulty breathing or swallowing
- Progressive weakness
- Severe neck or arm pain
- Difficulty passing urine
- New numbness
- Sudden worsening of neurological symptoms
- Related Conditions
- Cervical Slip Disc
- Cervical Radiculopathy
- Cervical Foraminal Stenosis
- Degenerative Cervical Disc Disease
- Related Procedures
- Anterior Cervical Discectomy & Fusion (ACDF)
- Microscopic Cervical Foraminotomy
- Posterior Cervical Decompression
- Need Expert Advice?
- If you have persistent neck pain, arm pain, numbness or weakness due to cervical disc disease, or have been advised cervical spine surgery, you may schedule a consultation or upload your MRI 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.