BOMBAY SPINE CLINIC

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Understanding Your Mri - Bombay Spine Clinic

- Understanding Your MRI & Spine Reports
- Your MRI Report Is Only One Part of the Diagnosis
- Many patients become worried after reading words such as "disc bulge," "slip disc," "canal stenosis," "nerve compression," or "degeneration" in their MRI report.
- It is important to understand that an MRI is a diagnostic tool—it is not the diagnosis itself.
- Many MRI findings are a normal part of ageing and may be seen even in people who have no pain at all. Similarly, some patients with severe pain may have only mild MRI changes.
- This is why your spine specialist always correlates:
- Your symptoms
- Physical examination findings
- MRI findings
- X-rays or CT scans (when required)
- Only after putting all these pieces together can the correct diagnosis and treatment plan be made.

What Is MRI?

- MRI (Magnetic Resonance Imaging)
- MRI is an advanced imaging test that uses a powerful magnetic field and radio waves to produce detailed images of your spine.
- Unlike X-rays, MRI can clearly show:
- Intervertebral discs
- Spinal cord
- Nerves
- Ligaments
- Muscles
- Infections
- Tumors
- Swelling and inflammation
- MRI does not use harmful radiation.
- When Is MRI Recommended?
- Your doctor may advise an MRI if you have:
- Pain radiating into the arm or leg (Sciatica)
- Tingling or numbness

- Weakness in the arms or legs
- Difficulty walking or loss of balance
- Persistent neck or back pain not improving with treatment
- Suspected spinal infection or tumor
- A history of spinal injury

Symptoms before planning surgery

- Not every patient with back or neck pain requires an MRI.

What Is a Slip Disc?

- Understanding a Slip Disc
- Despite its name, a "slip disc" does not mean that the disc has actually slipped out of place.
- Between each pair of spinal bones is a soft cushion called an intervertebral disc. It acts like a shock absorber and allows the spine to move smoothly.
- Sometimes the outer layer of the disc weakens or tears, allowing part of the inner material to bulge or protrude. This is commonly referred to as a slip disc, disc prolapse, or disc herniation.
- A slipped disc may:
- Cause no symptoms at all
- Cause back or neck pain
- Press on a nearby nerve and cause pain, numbness or weakness
- Many patients recover without surgery through medications, physiotherapy and activity modification.

What Is Nerve Compression?

- Your spinal cord gives rise to nerves that travel into your arms and legs.
- If a disc, bone spur, thickened ligament or other structure presses on a nerve, it is called nerve compression.
- Common symptoms include:
- Shooting pain down the arm or leg
- Tingling
- Numbness
- Weakness
- Burning sensation
- Reduced reflexes
- The severity of symptoms depends on how much pressure is present and how long the nerve has been compressed.

What Is Canal Stenosis?

- The spinal canal is a tunnel through which the spinal cord and nerves travel.
- When this tunnel becomes narrow, it is called spinal canal stenosis.

- This usually develops gradually with age due to:
- Disc bulges
- Thickened ligaments
- Enlarged joints (facet joints)
- Bone spurs
- Common symptoms include:
- Pain while standing or walking
- Leg heaviness
- Numbness
- Walking shorter distances
- Relief while sitting or bending forward
- Many patients improve with physiotherapy and appropriate treatment. Surgery is considered only when symptoms significantly affect quality of life or neurological function.

What Is Cord Compression?

- The spinal cord is the main communication pathway between your brain and the rest of your body.
- If the spinal cord becomes compressed, it is called cord compression.
- Unlike simple nerve compression, cord compression can be more serious and may require early specialist evaluation.

Symptoms may include:

- Difficulty using the hands
- Frequent dropping of objects
- Balance problems
- Difficulty walking
- Stiffness in the legs
- Weakness
- Bladder or bowel disturbances (in severe cases)
- Early diagnosis often leads to better outcomes.
- Common MRI Terms Explained
- Disc Bulge
- The disc extends slightly beyond its normal boundary. This is common with ageing and does not always cause pain.
- Disc Protrusion
- A larger bulge where part of the disc pushes outward but remains attached.
- Disc Extrusion
- The inner part of the disc has broken through the outer layer and extends further into the spinal canal.
- Disc Sequestration

- A fragment of the disc has completely separated from the main disc.
- Degenerative Disc Disease
- Age-related wear and tear of the spinal discs. It is common and does not necessarily mean severe disease.
- Facet Arthropathy
- Wear and tear of the small joints at the back of the spine, which can contribute to neck or back pain.
- Foraminal Stenosis
- Narrowing of the openings through which spinal nerves exit, which may compress a nerve.
- Central Canal Stenosis
- Narrowing of the central spinal canal that may compress the spinal cord or nerve roots.
- Osteophytes (Bone Spurs)
- Small bony projections that develop as part of the natural ageing process.
- Modic Changes
- Changes in the bone adjacent to the discs that may indicate inflammation or degeneration.
- Cord Signal Changes
- Changes seen within the spinal cord itself. These may suggest long-standing cord compression or injury and require specialist evaluation.
- Spondylolisthesis
- One vertebra slips forward over the vertebra below it, which may lead to back pain or nerve compression.
- Spondylosis
- Age-related wear and tear affecting the discs, joints and bones of the spine.
- Important Message
- Treat the Patient, Not the MRI
- MRI findings should always be interpreted together with:
- Your symptoms
- Physical examination
- X-rays or CT scans (when required)
- Your daily functional limitations
- An MRI report alone cannot determine whether surgery is needed.
- Many people with significant MRI abnormalities never require surgery, while some patients with only mild MRI changes may need treatment because their symptoms and examination findings indicate significant nerve or spinal cord compression.
- When Should You Consult a Spine Specialist?
- Seek a spine consultation if you experience:
- Persistent neck or back pain lasting more than 4–6 weeks
- Pain radiating into the arms or legs
- Tingling or numbness
- Progressive weakness
- Difficulty walking or loss of balance

- Problems with bladder or bowel control
- Fever, unexplained weight loss or severe night pain associated with spine pain
- Uncertainty about whether your MRI findings are responsible for your symptoms
- A spine specialist can explain your MRI findings in the context of your overall clinical picture and help you choose the most appropriate treatment, whether surgical or non-surgical.
- Top of Form
- Bottom of Form

> **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.
