# MANAGEMENT STRATEGIES FOR INTERVERTEBRAL DISC HERNIATION: CONSERVATIVE AND SURGICAL APPROACHES

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**Abstract**

Management of intervertebral disc herniation ranges from conservative therapy to advanced surgical interventions. This article summarizes evidence-based treatment approaches, indications for surgery, and outcomes associated with various techniques.

**Keywords:** disc herniation treatment; microdiscectomy; conservative therapy; epidural injections; ACDF; minimally invasive spine surgery.

**Introduction.** Treatment of intervertebral disc herniation aims to alleviate pain, restore function, and prevent neurological deterioration. While many patients respond well to conservative therapy, others require surgical intervention depending on symptom severity and progression.

**Conservative Management**

*1. Pharmacological Therapy*

- NSAIDs for pain and inflammation
- Muscle relaxants for spasm reduction
- Short-term corticosteroids in selected cases
- Neuropathic pain medications (gabapentin, pregabalin)

*2. Physical Therapy*

- Structured exercise programs
- Core strengthening
- McKenzie method
- Manual therapy and mobilization
- Ergonomic training

3. *Interventional Procedures*

- Epidural steroid injections
- Selective nerve root blocks

These may provide temporary symptom relief and facilitate functional recovery.

**Surgical Management**

*Indications*

- Progressive neurological deficits
- Cauda equina syndrome
- Persistent radiculopathy unresponsive to 6–12 weeks of conservative therapy
- Severe pain reducing quality of life

## Procedures

1. Microdiscectomy — gold standard for lumbar herniation.
2. Endoscopic discectomy — minimally invasive, reduced recovery time.
3. Laminectomy — for cases with coexisting stenosis.
4. Cervical anterior discectomy and fusion (ACDF) — common for cervical herniation.
5. Artificial disc replacement — preserves motion; indicated in selected patients.

## Prognosis

Most patients demonstrate significant improvement within months. Surgical outcomes are generally favorable, especially in cases of nerve root compression. Recurrence rates vary from 5% to 15%.

## Conclusion

Management of intervertebral disc herniation requires an individualized approach. Conservative therapy remains the first line, while surgical options are reserved for refractory or severe cases. Ongoing advancements in minimally invasive techniques continue to improve patient outcomes.

## References

1. Gugliotta, Marinella, et al. "Surgical versus conservative treatment for lumbar disc herniation: a prospective cohort study." *BMJ open* 6.12 (2016): e012938.
2. Hahne, Andrew J., Jon J. Ford, and Joan M. McMeeken. "Conservative management of lumbar disc herniation with associated radiculopathy: a systematic review." Spine 35.11 (2010): E488-E504.
3. Peul WC et al. Herniated lumbar disc surgery randomized trial. *NEJM*. 2007.
4. Ruetten S. Endoscopic discectomy outcomes. *Spine*. 2008.
5. Weinstein JN et al. Surgical vs. nonsurgical treatment for lumbar disc herniation. *JAMA*. 2006.