# **Lumbar Microdiscectomy**

# **CONSENT**

This document outlines the risks and potential complication rates associated with **lumbar microdiscectomy** for lumbar disc herniation.

- **Any complication:** 10–16% overall, with higher rates in elderly or those with comorbidities.[1][2][3]

- **Dural tear (incidental durotomy):** 3% (range 2–9%).[1][2][4][5]

- **Wound complications (infection, dehiscence, seroma):** 1–2.1%.[1][2][4]

- **Hematoma/hemorrhage:** 0.5–1.2%.[1][2]

- **New or worsening neurological deficit:** 1–3%.[1][4][5]

- **Direct nerve root injury:** 1–2.6%.[1][4]

- **Cerebrospinal fluid leak:** 2.2%.[2]

- **Urinary retention or micturition problems:** up to 5% (usually transient).[5]

- **Recurrent disc herniation:** 4.4–6.9%.[1][2][5][6]

- **Reoperation (within 2 years):** 4.3–7.1% for microdiscectomy, with 5.5% requiring revision microdiscectomy and 6.6% requiring fusion within 2 years.[1][2][6]

- **Readmission (within 90 days):** 2.4%.[7]

- **Deep infection:** 0.37%.[2]

- **Wrong level surgery:** 0.74%.[2]

- **Death:** 0.06% (0.6 per 1000 procedures).[4]

- **Thromboembolism (DVT/PE):** 0.047–0.138%.[4]

The American Society of Pain and Neuroscience guideline emphasizes that approximately 10% of patients undergoing microdiscectomy will experience reherniation, and up to 20% may require revision surgery. Complication and mortality rates increase with age and comorbidities.[5] Minimally invasive and endoscopic techniques may reduce infection risk and blood loss, but have similar or slightly higher rates of dural tear and reherniation compared to open procedures.[1][2][3][5][8]

| **Complication** | **Estimated Incidence (%)** | **Notes/Details** | **References** |
| --- | --- | --- | --- |
| Any complication | 10–16 | Higher in elderly/comorbidities | [1][4][5] |
| Dural tear/incidental durotomy | 3 (2–9) | Higher in endoscopic/minimally invasive | [1][2][4][6] |
| Wound complications | 1–2.1 | Infection, dehiscence, seroma | [1][2][4] |
| Hematoma/hemorrhage | 0.5–1.2 |   | [1][4] |
| Neurological deficit | 1–3 | New or worsening | [1][2][6] |
| Direct nerve root injury | 1–2.6 |   | [1][2] |
| CSF leak | 2.2 |   | [4] |
| Urinary retention/micturition | up to 5 | Usually transient | [6] |
| Recurrent disc herniation | 4.4–6.9 |   | [1][4][6][7] |
| Reoperation (2 years) | 4.3–7.1 | Includes revision microdiscectomy, fusion | [1][4][7] |
| Readmission (90 days) | 2.4 |   | [3] |
| Deep infection | 0.37 |   | [4] |
| Wrong level surgery | 0.74 |   | [4] |
| Death | 0.06 | 0.6 per 1000 procedures | [2] |
| Thromboembolism (DVT/PE) | 0.047–0.138 | Per 1000 cases | [2] |

By signing below, the patient acknowledges understanding of the above risks, their estimated incidence, and the potential for both common and rare complications associated with lumbar microdiscectomy. All questions have been answered to the patient's satisfaction.

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_**

**Patient Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DOB:\_\_\_\_\_\_\_\_\_**

# **References**

1. [Lumbar Microdiscectomy Complication Rates: A Systematic Review and Meta-Analysis.](https://pubmed.ncbi.nlm.nih.gov/26424346) Shriver MF, Xie JJ, Tye EY, et al. Neurosurgical Focus. 2015;39(4):E6. doi:10.3171/2015.7.FOCUS15281.

2. [A 2-Year Outcomes and Complications of Various Techniques of Lumbar Discectomy: A Multicentric Retrospective Study.](https://pubmed.ncbi.nlm.nih.gov/34555576) Rajamani PA, Goparaju P, Kulkarni AG, et al. World Neurosurgery. 2021;156:e319-e328. doi:10.1016/j.wneu.2021.09.062.

3. [Complication Rates of Different Discectomy Techniques for Symptomatic Lumbar Disc Herniation: A Systematic Review and Meta-Analysis.](https://pubmed.ncbi.nlm.nih.gov/32274586) Chen X, Chamoli U, Vargas Castillo J, Ramakrishna VAS, Diwan AD. European Spine Journal : Official Publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society. 2020;29(7):1752-1770. doi:10.1007/s00586-020-06389-5.

4. [Herniated Lumbar Intervertebral Disk.](https://www.nejm.org/doi/full/10.1056/NEJMcp1512658) Deyo RA, Mirza SK. The New England Journal of Medicine. 2016;374(18):1763-72. doi:10.1056/NEJMcp1512658.

5. [The American Society of Pain and Neuroscience (ASPN) Evidence-Based Clinical Guideline of Interventional Treatments for Low Back Pain.](https://pubmed.ncbi.nlm.nih.gov/36510616) Sayed D, Grider J, Strand N, et al. Journal of Pain Research. 2022;15:3729-3832. doi:10.2147/JPR.S386879.

6. [Risk Factors Associated With Revision Microdiscectomy or Subsequent Spinal Fusion Within 2 Years of Index Lumbar Microdiscectomy.](https://pubmed.ncbi.nlm.nih.gov/40257171) Kramer DE, Barrett TS, Drury-Gworek C, et al. Spine. 2025;:00007632-990000000-00995. doi:10.1097/BRS.0000000000005302.

7. [Informed Consent for Spine Procedures: Best Practice Guideline From the American Society of Pain and Neuroscience (ASPN).](https://pubmed.ncbi.nlm.nih.gov/37908778) Deer T, Patel AA, Sayed D, et al. Journal of Pain Research. 2023;16:3559-3568. doi:10.2147/JPR.S418261.

8. [Complication Rates of Different Discectomy Techniques for the Treatment of Lumbar Disc Herniation: A Network Meta-Analysis.](https://pubmed.ncbi.nlm.nih.gov/31529215) Chen X, Chamoli U, Lapkin S, Castillo JV, Diwan AD. European Spine Journal : Official Publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society. 2019;28(11):2588-2601. doi:10.1007/s00586-019-06142-7.