

Lumbar Selective Nerve Root Block (SNRB) Understanding Your Risks

This document outlines the risks and potential complication rates associated with lumbar selective nerve root block (SNRB). The following information is based on recent evidence from prospective and retrospective cohort studies, systematic reviews, and society guidelines.

Common Risks and Estimated Incidence:

- Any complication: 5–17% (includes both minor and major complications)[\[1\]\[2\]](#)
- Increased pain at the injection site: 17.1%[\[1\]](#)
- Increased radicular pain: 8.8%[\[1\]](#)
- Lightheadedness or vasovagal reaction: 6.5%[\[1\]](#)
- Increased spine pain: 5.1%[\[1\]](#)
- Nausea: 3.7%[\[1\]](#)
- Nonspecific headache: 1.4%[\[1\]](#)
- Vomiting: 0.5%[\[1\]](#)
- Minor complications (e.g., transient sensory symptoms, soreness, dizziness): 0–6%[\[3\]\[2\]\[4\]](#)
- Minor bleeding or hematoma at the injection site: rare (<1%)[\[5\]\[2\]](#)
- All minor complications are transient and self-limited, with no lasting harm reported in large series.[\[1\]\[2\]\[4\]](#)

Serious or Rare Risks:

- Infection (epidural abscess, meningitis): exceedingly rare[\[1\]\[5\]\[3\]\[6\]](#)
- Allergic reaction to injectate: rare[\[1\]\[5\]](#)
- Neurological injury (nerve root irritation, transient or persistent deficit): extremely rare, with

nerve root irritation reported in 0.1% of cases and no long-term deficits in large series[5]

- Vascular injury or inadvertent intravascular injection: risk of vascular penetration varies from 3.6% to 20% depending on technique; major vascular complications are rare[5]

- Catastrophic complications (spinal cord infarction, paraplegia): extremely rare, typically related to inadvertent intra-arterial injection of particulate steroid; no such events reported in large prospective series[1][5][3][2][6][7]

- Hematoma requiring evacuation: rare (<1%)[5][2]

- Permanent neurological deficit: not reported in large series[1][5][2][6][4][7]

Risk Factors for Increased Complications:

- Advanced age, higher BMI, diabetes, tobacco use, coagulopathy, and multilevel injections are associated with higher complication rates and poorer outcomes.[5][3][6]

Additional Considerations:

- The majority of complications are minor and resolve without long-term sequelae; permanent deficits are exceedingly rare.[1][5][3][2][6][4][7]

- The overall safety profile of lumbar SNRB is favorable, with a low risk of clinically significant complications.[1][5][3][2][6][4][7]

Patient Acknowledgment:

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 Selective Nerve Root Block. All questions have been answered to the patient's satisfaction.

Patient Signature: _____ **Date:** _____

Patient Name: _____ **DOB:** _____

References

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2. [Influence of Needle-Tip Position on the Incidence of Immediate Complications in 2.217 Selective Lumbar Nerve Root Blocks](#). Stalcup ST, Crall TS, Gilula L, Riew KD. The Spine Journal : Official Journal of the North American Spine Society. 2006 Mar-Apr;6(2):170-6. doi:10.1016/j.spinee.2005.08.009.
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5. [The American Society of Pain and Neuroscience \(ASPN\) Evidence-Based Clinical Guideline of Interventional Treatments for Low Back Pain](#). Sayed D, Grider J, Strand N, et al. Journal of Pain Research. 2022;15:3729-3832. doi:10.2147/JPR.S386879.
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7. [A Critical Appraisal of the Evidence for Selective Nerve Root Injection in the Treatment of Lumbosacral Radiculopathy](#). DePalma MJ, Bhargava A, Slipman CW. Archives of Physical Medicine and Rehabilitation. 2005;86(7):1477-83. doi:10.1016/j.apmr.2005.01.006.