

Cervical Medial Branch Block (MBB) and Radiofrequency Ablation (RFA)

Understanding Your Risks

Cervical medial branch block (MBB) and radiofrequency ablation (RFA, also called neurotomy) are minimally invasive procedures for the diagnosis and treatment of chronic neck pain and cervicogenic headache attributed to cervical facet (zygapophysial) joint disease. MBB is primarily diagnostic, confirming facet-mediated pain, while RFA is therapeutic, aiming for longer-term pain relief in patients with a positive response to MBB and failure of conservative management.[\[1\]\[2\]\[3\]\[4\]\[5\]](#)

Procedural Overview

- **MBB:** Injection of local anesthetic under image guidance to the medial branch nerves innervating the cervical facet joints.
- **RFA:** Application of thermal energy via a specialized needle to ablate the medial branch nerves, interrupting pain transmission.[\[1\]\[2\]\[3\]\[6\]](#)

Common Risks and Adverse Effects

- MBB:

- Minor complications are rare (<0.5% in large series), including transient local pain, bleeding, vasovagal reactions, and very rarely, infection.[\[1\]\[7\]](#)
- Intravascular injection occurs in 2–10% of cases but is minimized with image guidance and proper technique.[\[1\]](#)
- Temporary dizziness, ataxia, or mild sensory changes may occur, especially with bilateral or multilevel blocks.[\[1\]](#)

- RFA:

- Minor adverse effects are common (up to 40%), including post-procedural pain, cutaneous numbness, dysesthesias, dizziness, and ataxia, typically resolving within days to weeks.[\[1\]\[2\]\[3\]\[7\]](#)
- Pruritus, vasovagal syncope, and transient neuritis occur in <10% and are self-limited.[\[1\]\[7\]](#)
- Temporary neck stiffness, headache, and injection site soreness may occur.[\[1\]\[7\]](#)
- Koebner's phenomenon (rash at the cannula site) is rare.[\[1\]](#)
- Most minor complications resolve without intervention and do not result in long-term sequelae.[\[1\]\[7\]](#)

Serious or Rare Risks

- Both MBB and RFA:

- Serious complications are exceedingly rare when performed according to published guidelines. [\[1\]\[2\]\[3\]\[4\]\[6\]\[7\]](#)
- Neurological injury (nerve root irritation, persistent deficit) is extremely rare, with no permanent deficits reported in large series. [\[1\]\[2\]\[3\]\[4\]\[7\]](#)
- Vascular injury, including vertebral artery dissection and stroke, is rare but possible, especially with aberrant anatomy or technical error. [\[1\]](#)
- Infection (epidural abscess, meningitis) is exceedingly rare. [\[1\]\[7\]](#)
- Dural puncture and post-dural puncture headache are exceedingly rare. [\[1\]](#)
- Dropped head syndrome (severe cervical muscle weakness) has been reported after extensive, bilateral, multilevel RFA, particularly without use of sensory/motor stimulation. [\[1\]](#)
- No serious complications have been reported in large series when performed according to International Spine Intervention Society or American Academy of Pain Medicine guidelines. [\[1\]\[2\]\[3\]\[4\]\[6\]\[7\]](#)

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 Cervical Medial Branch Block. All questions have been answered to the patient's satisfaction.

Patient Signature: _____ **Date:** _____

Patient Name: _____ **DOB:** _____

References

1. [Consensus Practice Guidelines on Interventions for Cervical Spine \(Facet\) Joint Pain From a Multispecialty International Working Group](#). Hurley RW, Adams MCB, Barad M, et al. Regional Anesthesia and Pain Medicine. 2022;47(1):3-59. doi:10.1136/rapm-2021-103031.
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- [Published Data](#). Engel A, Rappard G, King W, Kennedy DJ. Pain Medicine (Malden, Mass.). 2016;17(4):658-69. doi:10.1111/pme.12928.
3. [Latest Evidence-Based Application for Radiofrequency Neurotomy \(LEARN\): Best Practice Guidelines From the American Society of Pain and Neuroscience \(ASPN\)](#). Lee DW, Pritzlaff S, Jung MJ, et al. Journal of Pain Research. 2021;14:2807-2831. doi:10.2147/JPR.S325665.
 4. [Outcomes of Cervical Therapeutic Medial Branch Blocks and Radiofrequency Neurotomy: Clinical Outcomes and Cost Utility Are Equivalent](#). Manchikanti L, Kosanovic R, Pampati V, Sanapati MR, Hirsch JA. Pain Physician. 2022;25(1):35-47.
 5. [The Effectiveness of Cervical Medial Branch Radiofrequency Ablation for Chronic Facet Joint Syndrome in Patients Selected by a Practical Medial Branch Block Paradigm](#). Burnham T, Conger A, Salazar F, et al. Pain Medicine (Malden, Mass.). 2020;21(10):2071-2076. doi:10.1093/pm/pnz358.
 6. [The American Society of Pain and Neuroscience \(ASPN\) Guidelines for Radiofrequency Ablative Procedures in Patients With Implanted Devices](#). Sowder T, Sayed D, Concannon T, et al. Journal of Pain Research. 2023;16:3693-3706. doi:10.2147/JPR.S419594.
 7. [Twenty-One-Year Experience With Cervical Diagnostic Blocks and Denervation: A Study of 1031 Cases at a Single Institution](#). Mirland T, Yuen LC, Van Cutsem N, et al. Pain Practice : The Official Journal of World Institute of Pain. 2025;25(6):e70054. doi:10.1111/papr.70054.