

Transforaminal Epidural Steroid Injection (TFESI)

Understanding Your Risks

This document outlines the risks and potential complication rates associated with Lumbar Transforaminal Epidural Steroid Injection (TFESI). The following information is based on recent evidence from prospective and retrospective cohort studies, systematic reviews, and society guidelines.

Purpose of the Procedure:

TFESI is performed to deliver corticosteroid medication and local anesthetic near the affected nerve root in the lumbar spine to reduce inflammation and alleviate radicular (nerve root) pain. The procedure is most effective for patients with radicular pain due to disc herniation, with less robust benefit for spinal stenosis or axial low back pain.[1][2][3]

Expected Benefits:

- Short-term pain relief (typically up to 3 months) and improved function in patients with lumbar radicular pain, especially from disc herniation.[1][2][3]
- Some patients may experience only modest or temporary benefit; the number needed to treat for one patient to benefit is estimated at 4–15.[3]
- TFESI is not shown to reduce the need for surgery or provide long-term benefit in most cases.[3]

Common Risks and Estimated Incidence:

- Any complication: 2.4–16.8% (most are minor and transient).[3][4][5][6]
- Increased pain at the injection site: 3.9–5%.[4][6]
- Increased radicular pain: 2.1–5%.[4][6]
- Vasovagal reaction (lightheadedness/fainting): 1.2–4.2%.[4][6]
- Headache: 1.4–3.9%.[4][6]
- Facial flushing, sweating, or insomnia: 1.6–2.6%.[4][6]
- Nausea: 0.5–3.7%.[4]
- Minor bleeding or hematoma at the injection site: rare (<1%).[5][6]

- Most minor complications resolve without lasting effects.[4][5][6]

Serious or Rare Risks:

- Infection (epidural abscess, meningitis): exceedingly rare.[5][6]

- Allergic reaction to injectate: rare.[5]

- Neurological injury (nerve root irritation, transient or persistent deficit): extremely rare, with no long-term deficits reported in large series.[3][4][5][6]

- Vascular injury or inadvertent intravascular injection: risk of vascular penetration varies (3.6–20%), but major vascular complications are rare.[2][5][7]

- Catastrophic complications (spinal cord infarction, paralysis, stroke, loss of vision, death): extremely rare, most often associated with inadvertent intra-arterial injection of particulate steroid. The use of nonparticulate steroids is recommended to reduce this risk.[2][3][5][7][8][9]

- Hematoma requiring evacuation: rare (<1%).[5][6]

- Permanent neurological deficit: not reported in large series.[3][5][6]

Risk Factors for Increased Complications:

- Advanced age, higher BMI, diabetes, tobacco use, coagulopathy, and multilevel injections may increase risk.[5]

Additional Considerations:

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

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 Transforaminal Epidural Steroid Injection. All questions have been answered to the patient's satisfaction.

Patient Signature: _____ **Date:** _____

Patient Name: _____ **DOB:** _____

References

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