

SYSTEMATIC REVIEW:

Epidural steroids for cervical and lumbar radicular pain and spinal stenosis

Summary for clinicians

This is a summary of the American Academy of Neurology (AAN) systematic review, "Epidural Steroids for Cervical and Lumbar Radicular Pain and Spinal Stenosis," which was published in *Neurology*® online on February 12, 2025.

Please refer to the full systematic review at [AAN.com/guidelines](https://www.aan.com/guidelines) for more information, including a detailed review of the evidence as well as descriptions of the processes for classifying evidence and deriving conclusions.

Systematic review scope

This systematic review evaluates evidence for the use of epidural steroid injections (ESIs) in cervical and lumbar spinal stenosis and radiculopathies, assessing short-term (≤ 3 months) and long-term (≥ 6 months) improvements in pain and disability. This review updates the AAN's 2007 "Assessment: Use of epidural steroid injections to treat radicular lumbosacral pain."

Summary of conclusions

Affirming the conclusions of the 2007 assessment, this systematic review found that there is limited efficacy of ESIs in reducing pain and disability in cervical and lumbar radiculopathies, largely in the short term. For people with lumbar spinal stenosis, the review found that ESIs might modestly reduce short- and long-term disability, but not short-term pain. There is insufficient evidence to determine whether ESIs reduce long-term pain in patients with lumbar stenosis. There is also insufficient evidence to determine the effectiveness of ESIs in patients with cervical spinal stenosis. The following table summarizes the conclusions of the reviewed evidence.

	Short-term disability	Long-term disability	Short-term pain	Long-term pain
Radiculopathy cervical and lumbar*	ESIs probably reduce	ESIs possibly reduce	ESIs probably reduce	Insufficient evidence
Spinal stenosis lumbar**	ESIs possibly reduce	ESIs possibly reduce	ESIs probably do not reduce	Insufficient evidence

*Driven by lumbar data

**Driven by lumbar data, no studies for cervical spinal stenosis

Suggestions for future research

There is controversy regarding the appropriate choice of inactive comparator treatments as a true placebo in clinical trials of ESIs. The panel recommends that future trials of ESIs use minimal meaningful clinical difference as the measure of efficacy and paraspinal muscle injection of saline as an inactive placebo.

The full systematic review discusses additional areas where further research may be valuable to clinical practice.



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