

Updated guidelines covering fusion procedures for degenerative disease of the lumbar spine

July 1 2014

Experts in the spine surgery community—neurosurgeons and orthopedic surgeons—banded together to evaluate the recent literature on lumbar spine fusion procedures and to publish up-to-date evidence-based recommendations on their use.

The Journal of Neurosurgery: Spine is pleased to announce today's publication of the American Association of Neurological Surgeons/Congress of Neurological Surgeons Joint Section on Disorders of the Spine and Peripheral Nerves' updated guidelines for the performance of fusion procedures for degenerative disease of the [lumbar spine](#). This update replaces the first set of guidelines published in the same journal in 2005.

Spinal fusion procedures constitute an established and successful therapy for patients with pain and/or neurological deficits due to degenerative diseases of the lumbar spine. It has been nine years since the original guidelines were published, and both knowledge and clinical practices change over time. The authors acknowledge, "all [clinical practice guidelines](#) are evolving documents that require periodic updating."

Similar to the first publication, the updated guidelines document is separated into parts focusing on the following topics:

1. Introduction and methodology

2. Assessment of functional outcome following lumbar surgery
3. Assessment of economic outcome
4. Radiographic assessment of the fusion status
5. Correlation between radiographic outcome and function
6. Discography for patient selection
7. Lumbar fusion for intractable low-back without stenosis or spondylolisthesis
8. Lumbar fusion for disc herniation and radiculopathy
9. Lumbar fusion for stenosis with spondylolisthesis
10. Lumbar fusion for stenosis without spondylolisthesis
11. Interbody techniques for lumbar fusion
12. Pedicle screw fixation as an adjunct to posterolateral fusion
13. Injection therapies, low-back pain, and lumbar fusion
14. Brace therapy as an adjunct to or substitute for lumbar fusion
15. Electrophysiological monitoring and lumbar fusion
16. Bone graft extenders and substitutes as an adjunct for lumbar fusion
17. Bone growth stimulators as an adjunct for lumbar fusion

The methodology used to formulate the updated guidelines differs slightly from that used in the 2005 publication. The authors state that the change was made to provide a more objective evaluation and to ease communication between subspecialty organizations. In brief, relevant papers were examined and classified according to the strength of evidence they provide. Recommendations for clinical practice were then made according to the levels of evidence on which they rest.

The topic chapters in the updated guidelines provide graded recommendations, a rationale for the procedure, the search criteria used to identify relevant literature, and a section on the scientific foundations for the recommendation. Tables summarizing salient papers in the literature and specifying the levels of evidence they provide are also included. Issues that may warrant further investigation are also listed.

In summarizing their aims, the authors state, "These guidelines are not intended to provide rigid treatment algorithms. Instead, it is hoped that this update will serve as a comprehensive review of the current state of the literature and provide the reader with a foundation to formulate an appropriate individualized treatment plan for a given patient. Furthermore it is the intent of any guideline to identify current limitations of the literature and stimulate further investigational research."

Provided by Journal of Neurosurgery Publishing Group

Citation: Updated guidelines covering fusion procedures for degenerative disease of the lumbar spine (2014, July 1) retrieved 4 May 2024 from <https://medicalxpress.com/news/2014-07-guidelines-fusion-procedures-degenerative-disease.html>

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