

<b>National Imaging Associates, Inc. *</b>	
<b>Clinical guidelines:</b> <b>THORACIC SPINE SURGERY</b>	<b>Original Date: July 2015</b>
<b>CPT Codes**:</b> - Thoracic Spine Surgery: 22532, 22534, 22556, 22585, 22610, 22614, 22830, 63003, 63016, 63046, 63048, 63055, 63057, 63064, 63066, 63077, 63078  <i>**See UM Matrix for allowable billed groupings and additional covered codes</i>	<b>Last Revised Date: <del>May June</del> 2021</b>
<b>Guideline Number: NIA_CG_308</b>	<b>Implementation Date: January 2023</b>

## INDICATIONS

All requests for thoracic spine surgery will be reviewed on a **case-by-case** basis. The following criteria **must** be met for consideration.

### DECOMPRESSION SURGERY ONLY

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening spinal cord compression – immediate surgical evaluation is indicated (~~Frymoyer, 2004; Garfin, 2017~~).<sup>1, 2</sup> Symptoms may include any of the following:
  - Lower extremity weakness
  - Unsteady gait related to myelopathy/balance or generalized lower extremity weakness
  - Disturbance with coordination
  - Hyperreflexia
  - Positive Babinski sign
  - Clonus; **OR**
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) or lower extremity weakness or paralysis with corresponding evidence of spinal cord compression on an magnetic resonance imaging (MRI) or computed tomography (CT) scan images – immediate surgical evaluation is indicated; **OR**
- When **All** of the following criteria are met:
  - Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least 6 consecutive weeks in the last 6 months of documented, physician-directed appropriate conservative treatment to include at least 2 of the following:

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- Analgesics, steroids, and/or NSAIDs
- Structured program of physical therapy
- Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician
- Epidural steroid injections and/or selective nerve root block; **AND**
- Imaging studies confirm the presence of spinal cord or spinal nerve root compression at the level corresponding with the clinical findings (MRI or CT)

### **THORACIC DECOMPRESSION WITH FUSION SURGERY**

- Deformity ~~C~~Eases – please refer to our Deformity Spine Surgery (Adult) Guideline; **OR**
- For myelopathy or radiculopathy secondary to cord or root compression (see criteria described above) satisfying the indications for decompressive surgery requiring extensive decompression that results in destabilization of the thoracic spine<sup>1, 2</sup> ([Frymoyer, 2004](#); [Garfin, 2017](#))

**NOTE:** There is no current evidence base to support fusion in the thoracic spine for degenerative disease without significant neurological compression or significant deformity as outlined above.

### **RELATIVE CONTRAINDICATIONS FOR SPINE SURGERY**

- **Medical contraindications to surgery**, e.g., severe osteoporosis; infection of soft tissue adjacent to the spine, whether or not it has spread to the spine; severe cardiopulmonary disease; anemia; malnutrition and systemic infection<sup>3</sup> ([Puvanesarajah, 2016](#))
- **Psychosocial risk factors.** It is imperative to rule out non-physiologic modifiers of pain presentation or non-operative conditions mimicking radiculopathy or instability (e.g., peripheral neuropathy, piriformis syndrome, myofascial pain, sympathetically mediated pain syndromes, sacroiliac dysfunction, psychological conditions, etc.) prior to consideration of elective surgical intervention<sup>4</sup> ([Kreiner, 2014](#))
- **Active nicotine use prior to fusion surgery.** ~~The Individualspatient~~ must refrain from nicotine use for at least six weeks prior to surgery and during the period of fusion healing<sup>5-7</sup> ([Andersen, 2001](#); [Glassman, 2000](#); [Patel, 2013](#))
- **Morbid obesity.** Contraindication to surgery in cases where there is significant risk and concern for improper post-operative healing, post-operative complications related to morbid obesity, and/or an inability to participate in post-operative rehabilitation<sup>8</sup> ([Epstein, 2017](#))

**NOTE:** Cases of severe myelopathy and progressive neurological dysfunction may require surgery despite these general contraindications.

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## BACKGROUND

### Thoracic Decompression with or without fusion

Thoracic disc herniation with or without nerve root compression is usually treated conservatively (non-surgically). A back brace may be worn to provide support and limit back motion. Injection of local anesthetic and steroids around the spinal nerve (spinal nerve blocks) may be effective in relieving radicular pain. As symptoms subside, activity is gradually increased. This may include physical therapy and/or a home exercise program. Preventive and maintenance measures (e.g., exercise, proper body mechanics) should be continued indefinitely. Job modification may be necessary to avoid aggravating activities.

Simple laminectomy is rarely used in the treatment of thoracic disc herniation because of the high risk of neurologic deterioration and paralysis. Excision of the disc (discectomy) may be performed via several different surgical approaches –anteriorly, laterally, or transpedicularly. Fusion should be performed only if surgery causes instability in the spinal column. Many newer techniques do not usually destabilize the thoracic spine.

### POLICY HISTORY

Date	Summary
<a href="#">May <del>June</del> 2022</a>	<a href="#">No changes</a>
June 2021	• No changes
October 2020	• No changes
October 2019	<ul style="list-style-type: none"><li>• Conservative care requirement further defined</li><li>• Modified contraindication section to include ‘relative’</li></ul>
November 2018	• Added and updated references

## REFERENCES

- Andersen T, Christensen FB, Laursen M, et al. Smoking as a predictor of negative outcome in lumbar spinal fusion. *Spine*. 2001; 26(23):2623-28. <http://www.ncbi.nlm.nih.gov/pubmed/11725245>.
- Epstein NE. More risks and complications for elective spine surgery in morbidly obese patients. *Surg Neurol Int*. 2017; 8:153.
- Frymoyer JW, Wiesel SW, An HS, et al. The Adult and Pediatric Spine—Third Edition. Lippincott Williams & Wilkins. 2004.
- Garfin S, Eismont F, Bell G, et al. Rothman-Simeone and Herkowitz's The Spine—Seventh Edition. Saunders/Elsevier. 2017.
- Glassman SD, Anagnost SC, Parker A, et al. The effect of cigarette smoking and smoking cessation on spinal fusion. *Spine*. 2000; 25(20):2608-15. [http://journals.lww.com/spinejournal/Abstract/2000/10150/The\\_Effect\\_of\\_Cigarette\\_Smoking\\_and\\_Smoking.11.aspx](http://journals.lww.com/spinejournal/Abstract/2000/10150/The_Effect_of_Cigarette_Smoking_and_Smoking.11.aspx).
- Kreiner DS, Shaffer WO, Baisden JL, et al. An evidence-based clinical guideline for the diagnosis and treatment of degenerative lumbar spinal stenosis. *Spine J*. 2013; 13(7):734-43.
- Patel RA, Wilson FR, Patel PA, et al. The effect of smoking on bone healing: A systematic review. *Bone Joint Res*. 2013; 2(6):102-11. <http://www.ncbi.nlm.nih.gov/pubmed/23836474>.
- Puvanesarajah V, Shen FH, Cancienne JM, et al. Risk factors for revision surgery following primary adult spinal deformity surgery in patients 65 years and older. *J Neurosurg Spine*. 2016; 25(4):486-493.

~~Reviewed / Approved by NIA Clinical Guideline Committee~~

### ~~GENERAL INFORMATION~~

~~It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.~~

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1. Frymoyer JW, Wiesel SW. *The Adult and Pediatric Spine*. Lippincott Williams & Wilkins; 2004.
2. Garfin SR, Eismont FJ, Bell GR, Bono CM, Fischgrund J. *Rothman-Simeone The Spine E-Book*. Elsevier Health Sciences; 2017.

3. Puvanesarajah V, Shen FH, Cancienne JM, et al. Risk factors for revision surgery following primary adult spinal deformity surgery in patients 65 years and older. *J Neurosurg Spine*. Oct 2016;25(4):486-493. doi:10.3171/2016.2.Spine151345
4. Kreiner DS, Shaffer WO, Baisden JL, et al. An evidence-based clinical guideline for the diagnosis and treatment of degenerative lumbar spinal stenosis (update). *Spine J*. Jul 2013;13(7):734-43. doi:10.1016/j.spinee.2012.11.059
5. Andersen T, Christensen FB, Laursen M, Høy K, Hansen ES, Bünger C. Smoking as a predictor of negative outcome in lumbar spinal fusion. *Spine (Phila Pa 1976)*. Dec 1 2001;26(23):2623-8. doi:10.1097/00007632-200112010-00018
6. Glassman SD, Anagnost SC, Parker A, Burke D, Johnson JR, Dimar JR. The effect of cigarette smoking and smoking cessation on spinal fusion. *Spine (Phila Pa 1976)*. Oct 15 2000;25(20):2608-15. doi:10.1097/00007632-200010150-00011
7. Patel RA, Wilson RF, Patel PA, Palmer RM. The effect of smoking on bone healing: A systematic review. *Bone Joint Res*. 2013;2(6):102-11. doi:10.1302/2046-3758.26.2000142
8. Epstein NE. High lumbar noninstrumented fusion rates using lamina autograft and Nanoss/bone marrow aspirate. *Surg Neurol Int*. 2017;8:153. doi:10.4103/sni.sni\_248\_17

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