

## Corporate Medical Policy

### Lumbar Spine Procedures

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**Origination:** 9/2010  
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#### Description of Procedure or Service

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Low back pain is a common affliction affecting over 80% of the general population at some time in the course of life. Although much of low back pain does not have a precisely identifiable cause, low back pain can be caused by a variety of conditions including degenerative disc disease, muscle strain, skeletal trauma, infection and tumor. Most cases of low back pain without an identifiable cause improve with conservative therapy including physical therapy, exercise, and/or analgesics. When the spine becomes unstable, for example, due to spondylolisthesis, trauma, infection or tumor, and for certain other identified causes of chronic, unremitting back pain, a surgical procedure is often recommended to provide stability or pain relief to the affected portion of the spine.

#### **Lumbar Laminotomy, Foraminotomy, and Discectomy**

Extrusion of an intervertebral disc beyond the intervertebral space can compress the spinal nerves and result in symptoms of pain, numbness, and weakness.

The natural history of untreated disc herniations is not well-characterized, but most herniations will decrease in size over time due to shrinking and/or regression of the disc. Clinical symptoms will also tend to improve overtime in conjunction with shrinkage or regression of the herniation.

Because most disc herniations improve over time, initial care is conservative, consisting of analgesics and a prescribed activity program tailored to patient considerations. Epidural steroid injections can also be used as a second-line intervention and are associated with short-term relief of symptoms.

However, some disc herniations will not improve over time with conservative care. A small proportion of patients will have rapidly progressive signs and symptoms, thus putting them at risk for irreversible neurologic deficits.

Other patients will not progress but will have the persistence of symptoms that require further intervention. It is estimated that up to 30% of patients with sciatica will continue to have pain for more than 1 year. For these patients, there is a high degree of morbidity and functional disability associated with chronic back pain, and there is a tendency for recurrent pain despite treatment. Therefore, treatments that have more uniform efficacy for patients with a herniated disc and chronic back pain are needed. In particular, decreased chronic pain and decreased disability are the goals of treatment of chronic low back pain due to a herniated disc.

Discectomy is a surgical procedure in which 1 or more intervertebral discs are removed. Extrusion of an intervertebral disc beyond the intervertebral space can compress the spinal nerves and result in pain, numbness, and weakness. Discectomy is intended to treat symptoms by relieving pressure on the affected nerve root(s). Discectomy can be performed by a variety of surgical approaches, with either open surgery or minimally invasive techniques.

Lumbar discectomy can be performed by a variety of surgical approaches. Open discectomy is the traditional approach. In open discectomy, a 2- to 3-cm incision is made over the area to be repaired. The spinal muscles are dissected, and a portion of the lamina may be removed to allow access to the

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vertebral space. The extruded disc is removed either entirely or partially using direct visualization. Osteophytes that are protruding into the vertebral space can also be removed if deemed necessary. The main alternative to open discectomy is microdiscectomy, which has gained popularity.

Microdiscectomy is a minimally invasive procedure that involves a smaller incision, visualization of the disc through a special camera, and removal of disc fragments using special instruments. Because less resection can be performed in a microdiscectomy, it is usually reserved for smaller herniations, in which a smaller amount of tissue needs to be removed. A few controlled trials comparing open discectomy with microdiscectomy have been published and reported that neither procedure is clearly superior to the other, but that microdiscectomy is associated with more rapid recovery. Systematic reviews and meta-analyses have also concluded that the evidence does not support the superiority of one procedure over another.

A foraminotomy is a surgical procedure in which an opening is made by removing bone around the area of the spinal column where the spinal nerve roots exit from the spinal cord. Thereby, enlarging the area around the vertebrae in the spinal column. A laminotomy involves removing a portion of the lamina, thus, creating an opening on the posterior portion of the vertebral body. Both procedures are thought to remove improve pain and reduce pressure on neural structures.

## **Lumbar Laminectomy**

Laminectomy is a surgical procedure in which a portion of the vertebra (the lamina) is removed to decompress the spinal cord. Removal of the lamina creates greater space for the spinal cord and the nerve roots, thus relieving compression on these structures. Laminectomy is typically performed to alleviate compression due to spinal stenosis or a space-occupying lesion. Decompression surgery may be performed as part of lumbar fusion surgery.

An incision is made in the back over the affected region, and the back muscles are dissected to expose the spinal cord in a laminectomy. The lamina is then removed from the vertebral body, along with any inflamed or thickened ligaments that may be contributing to compression. Following resection, the muscles are reapproximated and the soft tissues sutured back into place.

There are numerous variations on the basic laminectomy procedure. It can be performed by minimally invasive techniques, which minimizes the extent of resection. Laminoplasty is a more limited procedure in which the lamina is cut but not removed, thus allowing expansion of the spinal cord. Foraminotomy and/or foramenectomy, which involve partial or complete removal of the facet joints, may be combined with laminectomy when the spinal nerve roots are compressed at the foramen. Spinal fusion is combined with laminectomy when the instability of the spine is present preoperatively, or if the procedure is sufficiently extensive to expect postoperative spinal instability.

## **Lumbar Spine Fusion**

Arthrodesis (fusion) procedures in the lumbar (lower) spine are surgical procedures that join two or more lumbar vertebrae together into one solid bony structure. These procedures may be used to treat spine instability, cord compression due to severe degenerative disc disease, fractures in the lumbar spine or destruction of the vertebrae by infection or tumor. There are several methods or approaches to this surgery.

The most common approach to arthrodesis (fusion) of the lumbar spine is the posterior approach. After the vertebrae are exposed through the back, pressure on the nerve roots and/or spinal cord is removed (“decompressed”). This usually includes removing part or all of the nearby lamina bone, facet joints, any free disc fragments, or filing down any nearby bone spurs to relieve the nerves inside the spinal canal of tension and pressure. Additional decompression for the nerve roots and spinal cord may be required by cutting a larger opening in the neural foramina, the openings through which the spinal nerves pass out from the spinal cord to the limbs. This procedure is called “foraminotomy” as defined above.

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In preparation for the spinal fusion, a layer of bone off the back surfaces of the affected spinal column is removed. Fusion is performed one of several ways. Interbody devices are placed between the vertebra for spine fusion and preservation of the intervertebral space. Alternatively, small strips of bone called bone grafts are then removed from the top rim of the pelvis and placed over the now exposed bone surfaces of the spinal column. As healing occurs, the bone strips will fuse across the spaces in between the vertebral bodies, such as the disc spaces or the facet joint spaces.

To reinforce the fusion procedure, the bones may be fixated in place using a combination of metal screws, rods, and plates. This instrumentation holds together the vertebrae to be fused, to prevent them from moving during the bone healing process.

Other approaches to the lumbar spinal fusion include: 1) Anterior/anterolateral approach: The decompression of the nerves and intervertebral fusion is similar to the posterior approach, except that the intervertebral space is fused by approaching the spine through the abdomen instead of the lower back. 2) Anterior/ Posterior Lumbar Fusion: The intervertebral space is fused by approaching the spine through both the abdomen and the lower back. 3) Lateral extracavitary approach: The intervertebral space is fused by approaching the spine from the side or laterally.

For conditions such as disc herniation and spinal stenosis, medical literature suggests that back surgery with and without fusion result in similar improvement in symptoms over time. For these same conditions, decompression surgery alone is often equally as effective as decompression with arthrodesis (fusion) surgery.

## **Related Polices**

Artificial Intervertebral Disc  
Automated Percutaneous and Endoscopic Discectomy  
Bone Morphogenetic Protein  
Cervical Spine Procedures  
Decompression of the Intervertebral Disc Using Laser Energy (Laser Discectomy) or Radiofrequency Coblation (Nucleoplasty)  
Electrical Bone Growth Stimulation  
Image-Guided Minimally Invasive Decompression (IG-MLD) for Spinal Stenosis  
Interspinous and Interlaminar Stabilization/Distractor Devices (Spacers)  
Interspinous Fixation (Fusion) Devices  
Percutaneous Intradiscal and Intraosseous Radiofrequency Procedures of the Spine

**This policy addresses specifically the circumstances under which surgery of the lumbar spine is considered medically necessary in adults. Pediatric and adolescent cases will be addressed on an individual consideration basis.**

*\*\*\*Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.*

## **Policy**

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**BCBSNC will provide coverage for Lumbar Spine Procedures when it is determined to be medically necessary because the medical criteria and guidelines shown are met.**

## **Benefits Application**

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This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

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## When Lumbar Spine Procedures are covered

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BCBSNC will provide coverage for Lumbar Spine procedures for any one of the following conditions:

- I. Lumbar Discectomy, Foraminotomy, or Laminotomy** for any one of the following conditions:
1. Cauda equina or spinal cord compression (myelopathy), as indicated and ALL of the following:
    - a. Progressive or severe neurologic deficits consistent with cauda equina or spinal cord compression (eg, bladder or bowel incontinence); **and**
    - b. Imaging findings of compression that correlate with clinical findings
  2. Lumbar radiculopathy and any of the following:
    - a. Rapidly progressive or severe neurologic deficits (eg, weakness, bowel or bladder dysfunction) secondary to nerve root compression confirmed by imaging; **or**
    - b. Patient has unremitting radicular pain and ALL of the following:
      - MRI or other neuroimaging finding correlates with clinical signs and symptoms; **and**
      - Failure of nonoperative treatment that must include participation in 6 weeks of physical therapy (including active exercise)
  3. Lumbar spondylolisthesis, as indicated by any one of the following:
    - a. Rapidly progressive or very severe neurologic deficits (eg, bowel or bladder dysfunction), **or**
    - b. Symptoms requiring treatment, as indicated by ALL of the following:
      - Patient has persistent disabling symptoms, including any of the following:
        1. Low back pain
        2. Neurogenic claudication
        3. Radicular pain
      - Treatment is indicated by ALL of the following:
        1. Listhesis demonstrated on imaging
        2. Symptoms correlate with findings on MRI or other imaging
        3. Failure of nonoperative treatment that must include participation in 6 weeks of physical therapy (including active exercise)
- II. Lumbar Laminectomy** for any one of the following conditions:
1. Spinal cord compression (myelopathy), as indicated by ALL of the following:
    - a. Progressive or severe neurologic deficits consistent with spinal cord compression (eg, bladder or bowel incontinence); **and**
    - b. Imaging findings of lumbar cord compression that correlate with clinical findings
  2. Cauda equina syndrome, as indicated by any of the following:
    - a. Bowel dysfunction
    - b. Bladder dysfunction
    - c. Saddle anesthesia
    - d. Bilateral lower extremity neurologic abnormalities
  3. Lumbar spinal stenosis, as indicated by any of the following:
    - a. Rapidly progressive or very severe symptoms of neurogenic claudication with imaging findings of lumbar spinal stenosis that correlate with clinical findings

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- b. Leg or buttock neurogenic claudication symptoms and ALL of the following:
  - Symptoms that are persistent and disabling
  - Imaging findings of lumbar spinal stenosis that correlate with clinical findings
  - Failure of nonoperative treatment that must include participation in 6 weeks of physical therapy (including active exercise)
4. Lumbar spondylolisthesis, as indicated by 1 or more of the following:
  - a. Rapidly progressive or severe neurologic deficits (eg, bowel or bladder dysfunction)
  - b. Symptoms requiring treatment, as indicated by ALL of the following:
    - Patient has persistent disabling symptoms, including 1 or more of the following:
      1. Low back pain
      2. Neurogenic claudication
      3. Radicular pain
    - Treatment is indicated by ALL of the following:
      1. Listhesis demonstrated on imaging
      2. Symptoms that correlate with findings on MRI or other imaging
      3. Failure of nonoperative treatment that must include participation in 6 weeks of physical therapy (including active exercise)
5. Lumbar disc disease and 1 or more of the following:
  - a. Rapidly progressive or severe neurologic deficits (e.g., weakness, bowel or bladder dysfunction) secondary to nerve root compression that has been confirmed by imaging
  - b. Unrelenting radicular pain and ALL of the following:
    - Nerve root compression is confirmed by imaging; **and**
    - Failure of nonoperative treatment that must include participation in 6 weeks of physical therapy (including active exercise)
6. Dorsal rhizotomy for spasticity (eg, cerebral palsy)
7. Signs or symptoms of lumbar disease (eg, pain, motor weakness, bowel or bladder incontinence) secondary to tumor or neoplasm
8. Signs or symptoms of lumbar disease (eg, pain, motor weakness, bowel or bladder incontinence) secondary to infectious process (eg, epidural abscess)
9. Signs or symptoms of lumbar disease (eg, pain, motor weakness, bowel or bladder incontinence) secondary to acute trauma

### III. Lumbar Spine Fusion procedures for any one of the following conditions:

1. Spinal fracture with instability or neural compression
2. Spinal repair surgery for dislocation, tumor or infection (including abscess, osteomyelitis, discitis, tuberculosis, or fungal infection) when debridement is necessary and the extent of the debridement to help eradicate the infection creates or could create an unstable spine.
3. Spinal stenosis with ALL of the following:
  - a. Associated spondylolisthesis demonstrated on plain x-rays or other imaging; **and**
  - b. Any one of the following:
    - Neurogenic claudication or radicular pain that results in significant functional impairment in an individual who has failed at least 3 months of conservative care and has documentation of central/lateral recess/or foraminal stenosis on MRI or other imaging. **or**

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- Severe or rapidly progressive symptoms of motor loss, neurogenic claudication or cauda equina syndrome.
- 4. Severe, progressive idiopathic scoliosis (i.e., lumbar or thoracolumbar) with Cobb angle > 40 degrees
- 5. Severe degenerative scoliosis with any one of the following:
  - a. Documented progression of deformity with persistent axial (non-radiating) pain and impairment or loss of function unresponsive to at least 3 months of conservative therapy. **or**
  - b. Persistent and significant neurogenic symptoms (claudication or radicular pain) with impairment or loss of function, unresponsive to at least 3 months of conservative care.
- 6. Isthmic spondylolisthesis, either congenital (Wiltse type I) or acquired pars defect (Wiltse II), documented on x-ray, and with persistent back pain (with or without neurogenic symptoms), with impairment or loss of function, unresponsive to at least 6 months of conservative nonsurgical care.
- 7. Recurrent, same level, disc herniation, at least 6 months after previous disc surgery, with recurrent neurogenic symptoms (radicular pain or claudication), with impairment or loss of function, unresponsive to at least 3 months of conservative nonsurgical care, and with neural structure compression documented by appropriate imaging, and in an individual who had experienced significant interval relief of prior symptoms.
- 8. Adjacent Segment Degeneration, at least 6 months after previous fusion, with recurrent neurogenic symptoms (radicular pain or claudication), with impairment or loss of function, unresponsive to at least 3 months of conservative nonsurgical care, and with neural structure compression documented by appropriate imaging, and in an individual who had experienced significant interval relief of prior symptoms.
- 9. Pseudarthrosis, documented radiographically, no less than 6 months after initial fusion, with persistent axial back pain, with or without neurogenic symptoms, with impairment or loss of function, in an individual who had experienced significant interval relief of prior symptoms.
- 10. Iatrogenic or degenerative flatback syndrome with significant sagittal imbalance; when fusion is performed with spinal osteotomy.

**NOTE: For non-emergent procedures that include fusion, it is strongly recommended that the surgical candidate refrain from smoking/nicotine for at least six weeks prior to surgery and during the time of healing.**

#### **IV. Removal of Posterior Spinal Instrumentation** for any of the following conditions:

1. Deformity corrected and solid fusion achieved
2. Spinal infection
3. Neurologic complications (eg, new-onset thoracic radiculopathy)
4. Vascular complication
5. Symptomatic rod, hook, or screw migration, dislodgement, or breakage
6. Interference with growth instrumentation (eg, spontaneous fusion, overcorrection)
7. New pain or protruding mass at operative site after significant spinal trauma (eg, motor vehicle accident)
8. Severe late operative site back pain
9. Metallosis

### **When Lumbar Spine Procedures are not covered**

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BCBSNC will not provide coverage for Lumbar Spine procedures when it is considered **not medically necessary**.

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1. Lumbar discectomy, laminotomy, or foraminotomy is **not medically necessary** unless the above criteria are met.
2. Lumbar laminectomy is **not medically necessary** unless the above criteria are met.
3. Removal of posterior spinal instrumentation is **not medically necessary** unless one of the above conditions is met.
4. Lumbar spine arthrodesis (fusion) surgery is considered **not medically necessary** unless one of the above conditions is met.
5. Lumbar spinal fusion is also considered **not medically necessary** if the sole indication is any one or more of the following conditions:
  - a. Disc Herniation
  - b. Degenerative Disc Disease
  - c. Initial discectomy/laminectomy for neural structure decompression
  - d. Facet Syndrome

## Policy Guidelines

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### **Lumbar Spine Fusion:**

Conservative nonsurgical therapy for the duration specified must include the following:

- Use of prescription strength analgesics (including anti-inflammatory medications if not contraindicated), **and**
- Participation in physical therapy (including active exercise), **and**
- Evaluation and appropriate management of associated cognitive, behavioral or addiction issues when present.

Significant functional impairment or loss of function may include documentation of the following:

Inability or significantly decreased ability to perform normal daily activities of work, school or at-home duties.

Persistent debilitating pain is defined as:

- a. Significant level of pain on a daily basis defined on a Visual Analog Scale (VAS) as greater than 4; **and**
- b. Pain on a daily basis that has a documented impact on activities of daily living in spite of optimal conservative non-surgical therapy as outlined above and appropriate for the individual.

## Billing/Coding/Physician Documentation Information

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This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at [www.bcbsnc.com](http://www.bcbsnc.com). They are listed in the Category Search on the Medical Policy search page.

*Applicable service codes: 20930, 20931, 20936, 20937, 20938, 22533, 22534, 22558, 22585, 22612, 22614, 22630, 22632, 22633, 22634, 22800, 22802, 22804, 22808, 22810, 22812, 22840, 22841, 22842, 22843, 22844, 22845, 22846, 22847, 22849, 22850, 22852, 22853, 22854, 22859, 63005, 63012, 63017, 63030, 63035, 63042, 63044, 63047, 63048, 63056, 63057, 63087, 63088, 63090, 63091, 63102, 63103, and 63170.*

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BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

## Scientific Background and Reference Sources

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## Policy Implementation/Update Information

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### For Policy Titled Lumbar Spine Fusion Surgery

9/28/10 New policy written. BCBSNC will provide coverage for Lumbar Spinal Fusion when it is determined to be medically necessary because the medical criteria and guidelines are met. Notice given 9/28/2010. Policy effective 1/1/2011. (btw)

2/1/11 The following sentence in the “Description” section was revised from “For conditions such as **degenerative disc disease** and spinal stenosis, medical literature suggests that back surgery with and without fusion result in similar improvement in symptoms over time.” To “For conditions such as **disc herniation** and spinal stenosis, medical literature suggests that back surgery with and without fusion result in similar improvement in symptoms over time.” Added verbiage indicating that this policy is specific to **adults** and the following statement; “**Pediatric and adolescent cases will be addressed on an individual consideration basis.**” In the “When Covered” section revised number 2. From; “Spinal repair surgery for dislocation, abscess or tumor” to “Spinal repair surgery for dislocation, tumor or **infection (including abscess, osteomyelitis, discitis, or fungal infection) when debridement is necessary and the extent of the debridement to help eradicate the infection creates or could create an unstable spine.**” In 4.b. second bullet changed the statement from “Severe or rapidly progressive symptoms of neurogenic claudication or cauda equina syndrome.” To “Severe or rapidly progressive symptoms of **motor loss**, neurogenic claudication or cauda equina syndrome.” Number 7 revised from “Spondylolisthesis, isthmic (type II), with documented progression of slippage,” to “Isthmic spondylolisthesis, either congenital (Wiltse type I) or acquired pars defect (Wiltse II), documented on x-ray”. Added number 11. “Iatrogenic or degenerative flatback syndrome with significant sagittal imbalance; when fusion is performed with spinal osteotomy.” Reviewed with Senior Medical Director 1/20/2011. (btw)

6/21/11 Specialty Matched Consultant Advisory Panel review 5/25/2011. No change to policy statement. References added. (btw)

1/1/12 Added new 2012 CPT codes, 22633 and 22634 to “Billing/Coding” section. (btw)

1/24/12 CPT code 22624 corrected to 22634 in Billing/Coding section. (btw)

# Lumbar Spine Procedures

- 9/18/12 Specialty Matched Consultant Advisory Panel review. No change to policy intent. References added. (btw)
- 7/16/13 Specialty Matched Consultant Advisory Panel review 5/15/2013. No change to policy. References added. (btw)
- 6/10/14 Specialty Matched Consultant Advisory Panel review 5/27/2014. No change to policy. (btw)
- 2/24/15 Reference added. Senior Medical Director review. Added tuberculosis to statement 2 under When Covered section. Added “other imaging” to statement 3a under When Covered section. (sk)
- 10/1/15 Specialty Matched Consultant Advisory Panel review 5/26/2015. (sk)
- 7/1/16 Specialty Matched Consultant Advisory Panel review 5/25/2016. Reference added. (sk)
- 12/30/16 Code 22851 deleted from Billing/Coding section. Codes 22853, 22854, and 22859 added to Billing/Coding section. (sk)
- 2/3/17 Codes 22853, 22854, and 22859 removed from Billing/Coding section. (sk)
- 2/24/17 Codes 22853, 22854, and 22859 added to Billing/Coding section. (sk)
- 9/29/17 Reference added. Specialty Matched Consultant Advisory Panel review 5/31/2017. (sk)
- 6/29/18 Specialty Matched Consultant Advisory Panel review 5/23/2018. (sk)
- 10/12/18 Reference added. (sk)
- 6/11/19 Specialty Matched Consultant Advisory Panel review 5/15/2019. (sk)
- 8/27/19 Reference added. (sk)
- 6/9/20 Specialty Matched Consultant Advisory Panel review 5/20/2020. (sk)
- 6/1/21 Reference added. Related Policies updated. Specialty Matched Consultant Advisory Panel review 5/19/2021. (sk)
- 10/19/21 Medical Director review. Reference added. The following note added to the When Covered section: “For non-emergent procedures that include fusion, it is required that the surgical candidate refrain from smoking/nicotine for at least six weeks prior to surgery and during the time of healing. Attestation from the performing provider is required”. Notification given 10/19/2021 for policy effective date 1/1/2022. (sk)
- 6/14/22 Specialty Matched Consultant Advisory Panel review 5/18/2022. (sk)
- 5/30/23 References added. Specialty Matched Consultant Advisory Panel review 5/17/2023. (sk)
- For Policy retitled Lumbar Spine Procedures**
- 7/18/23 Policy updated to include Lumbar Laminotomy, Foraminotomy, and Discectomy, Lumbar Laminectomy, and Removal of Posterior Spinal Instrumentation criteria with Lumbar Spine Fusion Surgery medical policy to form combined medical policy for lumbar spine surgeries. Policy title changed from Lumbar Spine Fusion Surgery to Lumbar Spine Procedures.



# Lumbar Spine Procedures

Revised Description section. Added related policies. References added. Added CPT codes: 22850, 22852, 63005, 63012, 63017, 63030, 63035, 63042, 63044, 63047, 63048, 63056, 63057, 63087, 63088, 63090, 63091, 63102, 63103, and 63170. No changes to policy intent or limits set forth herein. Medical Director review 6/2023. (ldh)

9/29/23 Policy updated for effective date 10/1/2023. Updated the Note under the Lumbar Spine Fusion procedure in the When Covered section. Now reads: “For non-emergent procedures that include fusion, it is strongly recommended that the surgical candidate refrain from smoking/nicotine for at least six weeks prior to surgery and during the time of healing”. Removed requirement of 6 week tobacco cessation and associated provider attestation. (ldh)

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