

National Imaging Associates, Inc.\*

2022

# Magellan Clinical Guidelines For Medical Necessity Review

## SPINE SURGERY GUIDELINES - HMSA

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of Magellan Healthcare, Inc.

# Guidelines for Clinical Review Determination

## **Preamble**

Magellan is committed to the philosophy of supporting safe and effective treatment for patients. The medical necessity criteria that follow are guidelines for the provision of diagnostic imaging. These criteria are designed to guide both providers and reviewers to the most appropriate diagnostic tests based on a patient's unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice will be used when applying the guidelines. Determinations are made based on both the guideline and clinical information provided at the time of the request. It is expected that medical necessity decisions may change as new evidence-based information is provided or based on unique aspects of the patient's condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient.

# Guideline Development Process

These medical necessity criteria were developed by Magellan Healthcare for the purpose of making clinical review determinations for requests for therapies and diagnostic procedures. The developers of the criteria sets included representatives from the disciplines of radiology, internal medicine, nursing, cardiology, and other specialty groups. Magellan's guidelines are reviewed yearly and modified when necessary following a literature search of pertinent and established clinical guidelines and accepted diagnostic imaging practices.

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# Table of contents

## SPINE SURGERY GUIDELINES

CERVICAL SPINE SURGERY .....	5
LUMBAR SPINAL SURGERY .....	22

## CERVICAL SPINE SURGERY

### CPT Codes\*\*:

- Anterior Cervical Decompression with Fusion (ACDF) - Single Level: 22548, 22551, 22554
- Anterior Cervical Decompression with Fusion (ACDF) – Multiple Levels: +22552, +22585
- Cervical Posterior Decompression with Fusion - Single Level: 22590, 22595, 22600
- Cervical Posterior Decompression with Fusion – Multiple Levels: 22595, +22614
- Cervical Artificial Disc Replacement - Single Level: 22856, 22861, 22864
- Cervical Artificial Disc Replacement – Two Levels: +22858, +0098T, +0095T
- Cervical Posterior Decompression (without fusion): 63001, 63015, 63020, +63035, 63040, +63043, 63045, +63048, 63050, 63051
- Cervical Anterior Decompression (without fusion): 63075, +63076

*\*\*See UM Matrix for allowable billed groupings and additional covered codes*

### INDICATIONS FOR CERVICAL SPINE SURGERY:

#### Anterior Cervical Decompression with Fusion (ACDF) - Single Level

##### The following criteria must be met\*:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with **spinal cord compression** - immediate surgical evaluation is indicated (AAOS, 2013; Bono, 2011; Cunningham, 2010; Holly, 2009; Matz, 2009a; Matz, 2009b; Matz, 2009d; Matz, 2009e; Mummaneni, 2009; Tetreault, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:
  - Upper extremity weakness;
  - Unsteady gait related to myelopathy/balance or generalized lower extremity weakness;
  - Disturbance with coordination;
  - Hyperreflexia;
  - Hoffmann sign;
  - Positive Babinski sign and/or clonus; **OR**
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with evidence of spinal cord or nerve root compression on Magnetic Resonance Imaging (MRI) or Computed

Tomography (CT) imaging - immediate surgical evaluation is indicated (Bono, 2011; Matz, 2009b; Tetreault, 2013); **OR**

**When ALL of the following criteria are met** (Bono, 2011; Nikolaidis, 2010):

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity; **AND**
- Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to **at least 6 weeks** of appropriate conservative treatment; **AND**
- Documented failure of at least 6 consecutive weeks in the last 6 months of **any 2** of the following physician-directed conservative treatments:
  - 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 (disc herniation or foraminal stenosis) at the level **corresponding with the clinical findings** (Bono, 2011). Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue); **OR**
  - CT with or without myelography— indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI).

**\*Cervical spine decompression with fusion as first-line treatment without conservative care measures in the following clinical cases** (Matz, 2009b; Tetreault, 2013; White, 1987; Zhu, 2013);

- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection, or trauma.
- Fracture or instability on radiographic films measuring:
  - Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5mm anterior subluxation in association with radicular/cord dysfunction; **OR**
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

**Not Recommended** (Nikolaidis, 2010; Van Middelkoop, 2012):

- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. *See V. Cervical Fusion for Treatment of Axial Neck Pain Criteria*

### **Anterior Cervical Decompression with Fusion (ACDF) - Multiple Level**

#### **The following criteria must be met\*:**

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated (AAOS, 2013; Bono, 2011; Cunningham, 2010; Holly, 2009; Matz, 2009a; Matz, 2009b; Matz, 2009d; Matz, 2009e; Mummaneni, 2009; Tetreault, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:
  - Upper extremity weakness;
  - Unsteady gait related to myelopathy/balance or generalized lower extremity weakness;
  - Disturbance with coordination;
  - Hyperreflexia;
  - Hoffmann sign;
  - Positive Babinski sign and or clonus; **OR**
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Bono, 2011; Matz, 2009b; Tetreault, 2013); **OR**

#### **When ALL of the following criteria are met** (Bono, 2011; Nikolaidis, 2010):

- Cervical radiculopathy or myelopathy due to ruptured disc, spondylosis, spinal instability, or deformity; **AND**
- Persistent or recurrent pain/symptoms with functional limitations that are unresponsive to at least **6 weeks of conservative treatment**; **AND**
- Documented failure of at least 6 consecutive weeks in the last 6 months of **any 2** of the following physician-directed conservative treatments:
  - 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 (disc herniation or foraminal stenosis) at multiple levels corresponding with the clinical findings. Imaging studies may include any of the following (Bono, 2011):
  - MRI (preferred study for assessing cervical spine soft tissue); **OR**
  - CT with or without myelography - indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

**Cervical spine decompression with fusion performed as first-line treatment without conservative care measures in the following clinical cases** (Matz, 2009b; Tetreault, 2013; White, 1987; Zhu, 2013):

- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection or trauma.
- Fracture or instability on radiographic films measuring:
  - Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5mm anterior subluxation in association with radicular/cord dysfunction; **OR**
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

**Not Recommended** (Nikolaidis, 2010; Van Middelkoop, 2012):

- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. *See V. Cervical Fusion for Treatment of Axial Neck Pain Criteria.*

**Cervical Posterior Decompression with Fusion - Single Level**

**The following criteria must be met\*:**

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated (AAOS, 2013; Cunningham, 2010; Fehlings, 2013; Holly, 2009; Matz, 2009d; Mummaneni, 2009; Tetreault, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:
  - Upper extremity weakness;
  - Unsteady gait related to myelopathy/balance or generalized lower extremity weakness;
  - Disturbance with coordination;
  - Hyperreflexia;
  - Hoffmann sign;
  - Positive Babinski sign and / or clonus; **OR**
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Bono, 2011; Matz, 2009b; Tetreault, 2013); **OR**

When **ALL of the following** criteria are met (Bono, 2011; Nikolaidis, 2010):

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity; **AND**

## TABLE OF CONTENTS

- Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least **6 weeks of conservative treatment; AND**
- Documented failure of at least 6 consecutive weeks in the last 6 months of **any 2** of the following physician-directed conservative treatments:
  - 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 (disc herniation or foraminal stenosis) at single level corresponding with the clinical findings (Bono, 2011). Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue); **OR**
  - CT with or without myelography - indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI); **AND**

### **Cervical spine decompression with fusion performed as first-line treatment without conservative care measures in the following clinical cases (Fehlings, 2013; Tetreault, 2013; White, 1987; Zhu, 2013):**

- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection or trauma.
- Fracture or instability on radiographic films measuring:
  - Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5mm anterior subluxation in association with radicular/cord dysfunction; **OR**
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

### **Not Recommended** (Nikolaidis, 2010; Wang, 2011):

- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. *See V. Cervical Fusion for Treatment of Axial Neck Pain Criteria.*

### **Cervical Posterior Decompression with Fusion - Multiple Levels**

#### **The following criteria must be met\*:**

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated

## TABLE OF CONTENTS

(AAOS, 2013; Cunningham, 2010; Fehlings, 2013; Holly, 2009; Matz, 2009d; Mummaneni, 2009; Tetreault, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:

- Upper extremity weakness;
- Unsteady gait related to myelopathy/balance or generalized lower extremity weakness;
- Disturbance with coordination;
- Hyperreflexia;
- Hoffmann sign;
- Positive Babinski sign and / or clonus; **OR**
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Bono, 2011; Matz, 2009b; Tetreault, 2013); **OR**

**When ALL of the following criteria are met** (Bono, 2011; Nikolaidis, 2010):

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity; **AND**
- Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at **least 6 weeks of conservative treatment; AND**
- Documented failure of at least 6 consecutive weeks in the last 6 months of **any 2** of the following physician-directed conservative treatments:
  - 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 facet injections /selective nerve root block; **AND**
- Imaging studies indicate significant spinal cord or spinal nerve root compression at **multiple levels corresponding with the clinical findings**. Imaging studies may include (Bono, 2011):
  - MRI (preferred study for assessing cervical spine soft tissue); **OR**
  - CT with or without myelography - indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI); **AND**

**\*Cervical spine decompression with fusion performed as first-line treatment without conservative care measures in the following clinical cases** (Fehlings, 2013; Tetreault, 2013; White, 1987; Zhu, 2013):

- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection or trauma.

## TABLE OF CONTENTS

- Fracture or instability on radiographic films measuring:
  - Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5mm anterior subluxation in association with radicular/cord dysfunction; **OR**
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child

### **Not Recommended** (Nikolaidis, 2010; Wang, 2011):

- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. *See: Cervical Fusion for Treatment of Axial Neck Pain Criteria.*

### **Cervical Fusion for Treatment of Axial Neck Pain**

In patients with non-radicular cervical pain for whom fusion is being considered, **ALL of the following criteria must be met** (Riew, 2010):

- Improvement of the symptoms has failed or plateaued, and the residual symptoms of pain and functional disability are unacceptable at the **end of 6 to 12 consecutive months of appropriate, active treatment**, or at the end of longer duration of non-operative programs for debilitated patients with complex problems [NOTE: Mere passage of time with poorly guided treatment is not considered an active treatment program]; **AND**
- All pain generators are adequately defined and treated; **AND**
- All physical medicine and manual therapy interventions are completed; **AND**
- X-ray, MRI, or CT demonstrating disc pathology or spinal instability; **AND**
- Spine pathology limited to one or two levels unless other complicating factors are involved; **AND**
- Psychosocial evaluation for confounding issues addressed

**NOTE:** The effectiveness of three-level or greater cervical fusion for non-radicular pain has not been established (Van Middelkoop, 2012).

### **Cervical Posterior Decompression**

**The following criteria must be met\*:**

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated (AAOS, 2013; Bono, 2011; Heary, 2009; Mummaneni, 2009; Ryken, 2009; Tetreault, 2013; Wang, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:

## [TABLE OF CONTENTS](#)

- Upper extremity weakness;
- Unsteady gait related to myelopathy/balance or generalized lower extremity weakness;
- Disturbance with coordination;
- Hyperreflexia;
- Hoffmann sign;
- Positive Babinski sign and / or clonus; **OR**
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Tetreault, 2013; Wang, 2013); **OR**

When **ALL** of the following criteria are met (Bono, 2011):

- Cervical radiculopathy from ruptured disc, spondylosis, or deformity; **AND**
- Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at **least 6 weeks of appropriate conservative treatment; AND**
- Documented failure of at least 6 consecutive weeks in the last 6 months of **any 2** of the following physician-directed conservative treatments:
  - 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 facet injections /selective nerve root block; **AND**
- Imaging studies confirm the presence of spinal cord or spinal nerve root compression at the level(s) **corresponding with the clinical findings** (Bono, 2011; Sahai, 2019). Imaging studies may include **any** of the following:
  - MRI (preferred study for assessing cervical spine soft tissue); **OR**
  - CT with or without myelography— indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

**Cervical decompression performed as first-line treatment without conservative care in the following clinical cases** (Ryken, 2009; Tetreault, 2013; Wang, 2013; Zhu, 2013):

- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Spinal cord or nerve root compression due to tumor, infection or trauma.

**Not Recommended** (Nikolaidis, 2010; Wang, 2011):

- In asymptomatic or mildly symptomatic cases.

## TABLE OF CONTENTS

- In cases of neck pain alone, without neurological deficits and abnormal imaging findings. *See E. Cervical Fusion for Treatment of Axial Neck Pain Criteria.*
- In patients with kyphosis or at risk for development of postoperative kyphosis.

### **Cervical Artificial Disc Replacement (Single or Two Level)**

Indications for cervical artificial disc replacement are as follows (Bono, 2011; Cheng, 2009; Davis, 2015; Gornet, 2019; Lavelle, 2019; Matz, 2009e):

- Skeletally mature patient; **AND**
- Patient has intractable radiculopathy caused by one or two level disease (either herniated disc or spondylitic osteophyte) located at C3-C7; **AND**
- Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to **at least 6 weeks** of appropriate conservative treatment; **AND**
- Documented failure of at least 6 consecutive weeks in the last 6 months of **any 2** of the following physician-directed conservative treatments:
  - 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 facet injections /selective nerve root block; **AND**
- Imaging studies confirm the presence of compression at the level(s) corresponding with the clinical findings (MRI or CT); **AND**
- Use of an FDA-approved prosthetic intervertebral discs.

Cervical Artificial Disc Replacement is **NOT** indicated when **any of the following** clinical scenarios exists (Davis, 2015):

- Symptomatic multiple level disease affecting 3 or more levels
- Infection (at site of implantation or systemic)
- Osteoporosis or osteopenia
- Instability
  - Translation greater than 3mm difference between lateral flexion-extension views at the symptomatic levels;
  - 11 degrees of angular difference between lateral flexion-extension views at the symptomatic levels
- Sensitivity or allergy to implant materials

## TABLE OF CONTENTS

- Severe spondylosis defined as (Davis, 2015):
  - > 50% disc height loss compared to minimally or non-degenerated levels; **OR**
  - Bridging osteophytes; **OR**
  - Absence of motion on lateral flexion-extension views at the symptomatic site
- Severe facet arthropathy
- Ankylosing spondylitis
- Rheumatoid arthritis
- Previous fracture with anatomical deformity
- Ossification of the posterior longitudinal ligament (OPLL)
- Active cervical spine malignancy

### **Cervical Fusion without Decompression**

Cervical fusion without decompression will be reviewed on a **case-by-case basis**. Atraumatic instability due to Down Syndrome-related spinal deformity, rheumatoid arthritis, or basilar invagination are uncommon, but may require cervical fusion (Trumees, 2017).

### **Cervical Anterior Decompression (without fusion)**

All requests for anterior decompression without fusion will be reviewed on a **case-by-case basis** (Bono, 2011; Botelho, 2012; Gebremariam, 2012; Matz, 2009a; Matz, 2009e).

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## **BACKGROUND:**

This guideline outlines the key surgical treatments and indications for common cervical spinal disorders and is a consensus document based upon the best available evidence. Spine surgery is a complex area of medicine, and this document breaks out the clinical indications by surgical type. Operative treatment is indicated only when the natural history of an operatively treatable problem is better than the natural history of the problem without operative treatment. Choice of surgical approach is based on anatomy, the patient's pathology, and the surgeon's experience and preference. All operative interventions must be based on a positive correlation with clinical findings, the natural history of the disease, the clinical course, and diagnostic tests or imaging results.

### **Overview:**

**\*Conservative Therapy:** (Musculoskeletal) includes primarily physical therapy and /or injections; and a combination of modalities, such as rest, ice, heat, modified activities, medical devices (such as a cervical collar), medications, diathermy, chiropractic treatments, or physician supervised home exercise program.

**\*\*Home Exercise Program (HEP)** – the following two elements are required to meet guidelines for completion of conservative therapy:

- Information provided on exercise prescription/plan; **AND**
- Follow up with member with documentation provided regarding completion of HEP, (after 4 – 6 week period) or inability to complete HEP due to physical reason- i.e. increased pain, inability to physically perform exercises. (Patient inconvenience or noncompliance without explanation does not constitute “inability to complete” HEP).

A comprehensive assimilation of factors should lead to a specific diagnosis with positive identification of the pathologic condition(s).

- Early intervention may be required in acute incapacitating pain or in the presence of progressive neurological deficits.
- Operative treatment is indicated when the natural history of surgically treated lesions is better than the natural history for non-operatively treated lesions.
- Patients may present with localized pain or severe pain in combination with numbness, extremity weakness, loss of coordination, gait issues, or bowel and bladder complaints. Nonoperative treatment continues to play an important role in the care of patients with degenerative cervical spine disorders. If these symptoms progress to neurological deficits, from corresponding spinal cord or nerve root compression, then surgical intervention may be warranted.
- All patients being considered for surgical intervention should first undergo a comprehensive neuromusculoskeletal examination to identify those pain generators that may either respond to non-surgical techniques or may be refractory to surgical intervention.
- If operative intervention is being considered, particularly those procedures that require a fusion, it is required that the person refrain from smoking/nicotine for **at least six weeks** prior to surgery and during the time of healing (Jackson, 2016; Kusin, 2015; Liang, 2017; Olsson, 2015; Rajae, 2014; Tetreault, 2015).
- In situations requiring the possible need for operation, a second opinion may be necessary. Psychological evaluation is strongly encouraged when surgery is being performed for isolated axial pain to determine if the patient will likely benefit from the treatment.
- It is imperative for the clinician to rule out non-physiologic modifiers of pain presentation, or non-operative conditions mimicking radiculopathy, myelopathy or spinal instability (peripheral compressive neuropathy, chronic soft tissue injuries, and psychological conditions), prior to consideration of elective surgical intervention.

Degenerative cervical spine disorders, while often benign and episodic in nature, can become debilitating, resulting in axial pain and neurological damage to the spinal cord or roots. Compression on the nerve root and / or spinal cord may be caused by (1) a herniated disc with or without extrusion of disc fragments and/or (2) degenerative cervical spondylosis.

### **Anterior Approaches:**

Anterior surgical approaches to cervical spine decompression emerged in the 1950s in response to technical limitations experienced with posterior approaches, including restricted access to and exposure of midline bony spurs and disc fragments.

The first reports in the literature describe anterior cervical discectomy combined with a spinal fusion procedure (ACDF). Fusion was added to address concerns about potential for loss of spinal stability and disc space height, leading to late postoperative complications such as kyphosis and radicular pain (Sonntag, 1996; Dowd, 1999; Matz, 2009a; Matz, 2009b; Denaro, 2011; Botelho, 2012; Van Middelkoop, 2012).

Anterior cervical fusion (ACF) accounted for approximately 80% of cervical spine procedures performed in the United States between 2002 and 2009, while posterior cervical fusion (PCF) accounted for 8.5% of these procedures (Oglesby, 2013).

**Anterior Cervical Discectomy and Fusion (ACDF)** – removal of all or part of a herniated or ruptured disc or spondylolytic bony spur to alleviate pressure on the nerve roots or on the spinal cord in patients with symptomatic radiculopathy. Discectomy is most often combined with fusion to stabilize the spine.

**Cervical Artificial Disc Replacement** - This involves the insertion of a prosthetic device into the cervical intervertebral space with the goal of maintaining physiologic motion at the treated cervical segment. The use of artificial discs in motion-preserving technology is based on the surgeon's preference and training. Only FDA-approved artificial discs are appropriate.

### **Posterior Approaches**

**Laminectomy** – removal of the bone between the spinal process and facet pedicle junction to expose the neural elements of the spine. This allows for the inspection of the spinal canal, identification and removal of pathological tissue, and decompression of the cord and roots.

**Laminoplasty** – the opening of the lamina to enlarge the spinal canal. There are several laminoplasty techniques; all aim to alleviate cord compression by reconstructing the spinal canal. Laminoplasty is commonly performed to decompress the spinal cord in patients with multilevel degenerative spinal stenosis and neutral or lordotic alignment.

**Laminoforaminotomy (also known as posterior discectomy)** – the creation of a small window in the lamina to facilitate removal of arthritic bone spurs and herniated disc material pressing on the nerve root as it exits through the foramen. The procedure widens the opening of the foramen so that the nerve exits without being compressed.

### **POLICY HISTORY SUMMARIES:**

November 2018

- “Cervical Artificial Disc Replacement”: Removed “no prior neck surgery” requirement
- Changed smoking/nicotine cessation from ‘recommended’ to ‘required’
- Added and updated references

## [TABLE OF CONTENTS](#)

### September 2019

- Codes 22856, 22861, 22864 added to -Cervical Artificial Disc - Two Levels

### October 2019

- “in the last 6 months” added to further define the conservative care requirement
- New references added

### October 2020

- No significant change

### November 2020

- Added CPT code 22864 to ACDF Single Level and ACDF Multiple Level

### June 2021

- No changes

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## [TABLE OF CONTENTS](#)

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## LUMBAR SPINAL SURGERY

### CPT Codes\*\*:

- Lumbar Fusion (Single level) = 22533, 22558, 22612, 22630, 22633, +63052, +63053 *Plus Decompression*
- Lumbar Fusion (Multiple levels) = +22534, +22585, +22614, +22632, +22634, +63052, +63053 (+indicates multiple levels) *Plus Decompression*
- Lumbar Decompression = 63005, 63012, 63017, 63042, +63044, 63047, +63048, 63056, +63057
- Lumbar Discectomy/Microdiscectomy = 63030, +63035, 62380

\*\*See UM Matrix for allowable billed groupings and additional covered codes

### INDICATIONS FOR LUMBAR SPINE SURGERY:

#### Lumbar Discectomy/Microdiscectomy: Surgical indications for inter-vertebral disc herniation\*:

- When **ALL of the following** are present:
  - Primary radicular symptoms noted upon clinical exam that significantly hinders daily activities (Chou, 2009; Kreiner, 2014; Tosteson, 2011); **AND**
  - Failure to improve with 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 (Delitto, 2015; Kreiner, 2014, 2013):
    - 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 showing evidence of inter-vertebral disc herniation that correlate exactly with the patient's symptoms / signs (Fardon, 2014; Kreiner, 2014); **OR**

**\*Other Indications:** Microdiscectomy may be used as the first line of treatment (*no conservative treatment required*) in the following clinical scenarios (Kreiner, 2014):

- Progressive nerve compression resulting in an acute neurologic deficit (motor) due to herniated disc. The neurological deficits should be significant: 0-2/5 on the motor function scale for L5 or S1 roots; 0-3/5 for L3 or L4 roots. Lesser degrees of motor dysfunction may resolve with conservative treatment and are not considered an indication for early surgery; **OR**
- Cauda equina syndrome (loss of bowel or bladder control).

**NOTE:** Percutaneous lumbar discectomy, radiofrequency disc decompression, and related procedures are deemed investigational procedures and are not approved. Discectomy and microdiscectomy are the gold standards.

**Lumbar Decompression: Laminectomy, Laminotomy, Facetectomy, and Foraminotomy. These procedures allow decompression by partial or total removal of various parts of vertebral bone and ligaments. Surgical Indications for spinal canal decompression due to lumbar spinal stenosis\*:**

- When **ALL of the following** are present:
  - Neurogenic claudication, and/or radicular leg pain that impairs daily activities (Atlas, 2005; Chou, 2009; Genevay, 2010; Kreiner, 2013; Tosteson, 2011, 2008; Weinstein, 2007); **AND**
  - Failure to improve with at least 6 consecutive weeks in the last 6 months of documented, physician directed appropriate conservative therapy to include **at least two (2) of the following** (Delitto, 2015; Kreiner, 2013):
    - 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 findings demonstrating moderate to severe stenosis consistent with clinical signs/symptoms (Genevay, 2010; Kreiner, 2013; Weinstein, 2007); **OR**

**\*Other Indications:** Lumbar decompression may be used as the first line of treatment (*no conservative treatment required*) in any of the following clinical scenarios (Kreiner, 2014, 2013):

- Progressive nerve compression resulting in an acute neurologic (motor) deficit. The neurological deficits should be significant—0-2/5 on the motor function scale for L5 or S1 roots; 0-3/5 for L3 or L4 roots. Lesser degrees of motor dysfunction may resolve with conservative treatment and are not considered an indication for early surgery; **OR**
- Cauda equina syndrome (loss of bowel or bladder control); **OR**
- Spinal stenosis due to tumor, infection, or trauma

**NOTE:** Percutaneous decompressions, endoscopic decompression, and related procedures (laser, etc.) are deemed investigational procedures and are not approved. Open or microdecompressions via laminectomy or laminotomy are the gold standards (Kreiner, 2014).

### **Lumbar Spine Fusion:**

#### **Single Level Fusion with or without Decompression:**

Because of variable outcomes with fusion surgery, patients should be actively involved in the decision-making process and provided appropriate decision-support materials explaining potential risks/benefits/ and treatment alternatives when considering this intervention.

- When **All of the following** are present\*:

## TABLE OF CONTENTS

- Lumbar back pain, neurogenic claudication, and/or radicular leg pain without sensory or motor deficit that impairs daily activities **for at least 6 months** (Bogduk, 2009; Brox, 2010; Carreon, 2008; Chou, 2009; Eck, 2014; Fritzell, 2001; Kreiner, 2013; Mannion, 2016; Matz, 2014, 2016; NASS, 2009; Tosteson, 2011, 2008; Weinstein, 2007); **AND**
- Failure to improve with at least 6 consecutive weeks in the last 6 months of documented, physician directed appropriate conservative therapy (6 months for isolated LBP) to include **at least two (2) of the following** (Brox, 2010; Chou, 2009; Eck, 2014; Delitto, 2015; Kreiner, 2013; Matz, 2014, 2016; NASS, 2009)
  - 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 facet injections /selective nerve root block; **AND**
- Imaging studies corresponding to the clinical findings (Eck, 2014; Genevay, 2010; Kreiner, 2013; Matz, 2014, 2016; NASS, 2009; Weinstein, 2007); **AND**
- At least **one of the following** clinical conditions:
  - Spondylolisthesis [Neural Arch Defect -Spondylolytic spondylolisthesis, degenerative spondylolisthesis, and congenital unilateral neural arch hypoplasia] (Carreon, 2008; Kwon, 2005; Matz, 2014, 2016; NASS, 2009; Weinstein, 2007; Yavin, 2017); **OR**
  - Evidence of segmental instability -Excessive motion, as in degenerative spondylolisthesis, segmental instability, and surgically induced segmental instability (Carreon, 2008; Kwon, 2005; Matz, 2014, 2016; NASS, 2009; Weinstein, 2007; Yavin, 2017); **OR**
  - Revision surgery for failed previous operation(s) for pseudoarthrosis at the same level at least 6-12 months from prior surgery\*\* if significant functional gains are anticipated (Trumees, 2017) ; **OR**
  - Revision surgery for failed previous operation(s) repeat disk herniations if significant functional gains are anticipated (Note: Many recurrent disc herniations can be treated with discectomy alone, so specific indications for the addition of fusion will be required) (Kreiner, 2014); **OR**
  - Fusion for the treatment of spinal tumor, cancer, or infection (Trumees, 2017); **OR**
  - Chronic low back pain or degenerative disc disease (disc degeneration without significant neurological compression presenting with low back pain) must have failed at least 6 months of appropriate active non-operative treatment (**completion of a comprehensive cognitive -behavioral rehabilitation program is mandatory**) and must be evaluated on a case-by-case basis (Bogduk, 2009; Brox, 2010; Chou, 2009; Fardon, 2014; Fritzell, 2001; Mannion, 2016; Yavin, 2017).

**NOTE:** The results of several randomized trials suggests that in many degenerative cases uninstrumented posterolateral intertransverse fusion has similar results to larger instrumented (PLIF, TLIF, etc.) fusion techniques with fewer morbidities and less likelihood of revision surgery. Accordingly, specific findings suggesting more significant instability should be present when larger techniques are used (gaping of facets, gross motion on flexion / extension radiographs, wide disc spaces) (Carreon, 2008; Deyo, 2010; Endler, 2017; Yavin, 2017); **OR**

**\*Other Indications:** Lumbar spinal fusion may be used as the first line of treatment (*no conservative treatment required*) in the following clinical scenarios (Kreiner, 2014):

- Progressive nerve compression resulting in an acute neurologic deficit (motor); **AND**
  - One of the aforementioned clinical conditions, except chronic low back pain or degenerative disc disease. The neurological deficits must be significant: 0-2/5 on the motor function scale for L5 or S1 roots; or 0-3/5 for L3 or L4 roots. Lesser degrees of motor dysfunction may resolve with conservative treatment and are not considered an indication for early surgery.
- Cauda equina syndrome (loss of bowel or bladder control); **AND**
  - One of the aforementioned clinical conditions, except chronic low back pain or degenerative disc disease.

**\*\* REPEAT LUMBAR SPINE FUSION OPERATIONS:** Repeat lumbar fusion operations will be reviewed on a case-by-case basis upon submission of medical records and imaging studies that demonstrate remediable pathology. The below must also be **documented and available for review of repeat** fusion requests (Bogduk, 2009; Chou, 2009; Mannion, 2016; Yavin, 2017):

- Rationale as to why surgery is preferred over other non-invasive or less invasive treatment procedures.
- Signed documentation that the patient has participated in the decision-making process and understands the high rate of failure/complications.

**Multi-level Fusion with or without decompression (all multi-level fusion surgeries will be reviewed on a case-by-case basis):**

Because of variable outcomes with fusion surgery, patients should be actively involved in the decision-making process and provided appropriate decision-support materials explaining potential risks/ benefits/ and treatment alternatives when considering this intervention.

- When **ALL of the following** are present\*:
  - Lumbar back pain, neurogenic claudication, and/or radicular leg pain without sensory or motor deficit that impairs daily activities for **at least 6 months** (Bogduk 2009; Brox 2010; Chou 2009; Fritzell 2001; Mannion 2016; Tosteson 2011, 2008; Weinstein, 2007); **AND**
  - Failure to improve with at least 6 consecutive weeks in the last 6 months of documented, physician directed appropriate conservative therapy to include at least two (2) of the following (Brox, 2010; Delitto, 2015; Matz, 2014, 2016; NASS, 2009):

## TABLE OF CONTENTS

- 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 facet injections /selective nerve root block; **AND**
- Imaging studies corresponding to the clinical findings (Eck, 2014; Genevay, 2010; Kreiner, 2013; Matz, 2014, 2016; NASS, 2009; Weinstein, 2007); **AND**
- At least **one of the following** clinical conditions (Carreon, 2008; Kwon, 2005; Matz, 2014, 2016; NASS, 2009; Yavin, 2017):
  - Multiple level spondylolisthesis (Note: Fusions in cases with single level spondylolisthesis should be limited to the unstable level); **OR**
  - Fusion for the treatment of spinal tumor, trauma, cancer, or infection affecting multiple levels; **OR**
  - Intra-operative segmental instability; **OR**

**\*Other Indications:** Lumbar spinal fusion may be used as the first line of treatment (*no conservative treatment required*) in the following clinical scenarios (Kreiner, 2014):

- Progressive nerve compression resulting in an acute neurologic deficit (motor); **AND**
  - One of the aforementioned clinical conditions except chronic low back pain or degenerative disc disease. The neurological deficits must be significant: 0-2/5 on the motor function scale for L5 or S1 roots; or 0-3/5 for L3 or L4 roots. Lesser degrees of motor dysfunction may resolve with appropriate conservative treatment and are not considered an indication for early surgery; **OR**
- Cauda equina syndrome (loss of bowel or bladder control); **AND**
  - One of the aforementioned clinical conditions, except chronic low back pain or degenerative disc disease.

**NOTE:** Instrumentation, bone formation or grafting materials, including biologics, should be used at the surgeon's discretion; however, use should be limited to FDA approved indications regarding the specific devices or biologics.

**NOTE:** This lumbar surgery guideline does not address spinal deformity surgeries or the clinical indications for spinal deformity surgery.

**NOTE:** Pre-sacral, axial lumbar interbody fusion (AxiaLIF) is not an approved surgical approach due to insufficient evidence.

**RELATIVE CONTRAINDICATIONS FOR SPINE SURGERY (NOTE: Cases may not be approved if the below contraindications exist):**

- **Medical contraindications** to surgery, e.g., severe osteoporosis; infection of soft tissue adjacent to the spine and may be at risk for spreading to the spine; severe cardiopulmonary disease; anemia; malnutrition and systemic infection (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 (Kreiner, 2014). Patients with clinically significant depression or other psychiatric disorders being considered for elective spine surgery will be reviewed on a case-by-case basis and the surgery may be denied for risk of failure.
- **Active Tobacco or Nicotine** use prior to fusion surgery. Patients must be free from smoking and/or nicotine use for at least six weeks prior to surgery and during the entire period of fusion healing (Andersen, 2001; Glassman, 2000; Hermann, 2016; Jackson, 2016; 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 (Epstein, 2017). These cases will be reviewed on a case-by-case basis and may be denied given the risk of failure.

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## **BACKGROUND:**

**Lumbar Discectomy/Microdiscectomy** is a surgical procedure to remove part of the damaged spinal disc. The damaged spinal disc herniates into the spinal canal and compresses the nerve roots. Nerve root compression leads to symptoms like low back pain, radicular pain, numbness and tingling, muscular weakness, and paresthesia. Typical disc herniation pain is exacerbated with any movement that causes the disc to increase pressure on the nerve roots.

### **Lumbar Decompression (Laminectomy, Laminotomy, Facetomy, and Foraminotomy):**

Laminectomy is a common decompression surgery. The American Association of Neurological Surgeons defines laminectomy as a surgery to remove the back part of vertebra, lamina, to create more space for the spinal cord and nerves. The most common indication for laminectomy is spinal stenosis. Spondylolisthesis and herniated disk are also frequent indications for laminectomy. Decompression surgery is usually performed as part of lumbar fusion surgery.

**Lumbar Fusion Surgery:** Lumbar spinal fusion (arthrodesis) is a surgical procedure used to treat spinal conditions of the lumbar, e.g., degenerative disc disease, spinal stenosis, injuries/fractures of the spine, spinal instability, and spondylolisthesis. Spinal fusion is a “welding” process that permanently fuses or joins together two or more adjacent bones in the spine, immobilizing the vertebrae and restricting motion at a painful joint. It is usually performed after other surgical procedures of the spine, such as discectomy or laminectomy. The goal of fusion is to increase spinal stability, reduce irritation of the affected nerve roots, compression on the spinal cord, disability, and pain and/or numbness. Clinical criteria for single level fusion versus multiple level fusions are outlined under the indications section.

## OVERVIEW:

This guideline outlines the key surgical treatments and indications for common lumbar spinal disorders and is a consensus document based upon the best available evidence. Spine surgery is a complex area of medicine and this document breaks out the treatment modalities for lumbar spine disorders into surgical categories: **lumbar discectomy/microdiscectomy, lumbar decompression, and lumbar fusion surgery**. See below for procedures considered not medically necessary.

- **Spinal surgeries should be performed only by those with extensive surgical training (neurosurgery, orthopaedic surgery)**
- **Services Not Covered:** The following procedures are considered either still under investigation or are not recommended based upon the current evidence: Percutaneous lumbar discectomy; Laser discectomy; Percutaneous Radiofrequency Disc Decompression; intradiscal electrothermal annuloplasty (IDEA) or more commonly called IDET (Intradiscal Electrothermal therapy); Nucleus Pulposus Replacement; and Pre-Sacral Fusion.
  - *PERCUTANEOUS DISCECTOMY* is an invasive operative procedure to accomplish partial removal of the disc through a needle which allows aspiration of a portion of the disc under imaging control. Its only indication is to obtain diagnostic tissue, such as, for a biopsy for discitis. Its effectiveness has not been fully established.
  - *LASER DISCECTOMY* is a procedure which involves the delivery of laser energy into the center of the nucleus pulposus using a fluoroscopically guided laser fiber under local anesthesia. The energy denatures protein in the nucleus, causing a structural change which is intended to reduce intradiscal pressure. Its effectiveness has not been fully established.
  - *INTRADISCAL ELECTROTHERMAL ANNULOPLASTY (IDEA) (more commonly called IDET, or Intradiscal Electrothermal therapy)* is an outpatient non-operative procedure in which a wire is guided into the identified painful disc using fluoroscopy. The wire is then heated at the nuclear-annular junction within the disc. It has not been shown to be effective.
  - *NUCLEUS PULPOSUS REPLACEMENT* Involves the introduction of a prosthetic implant into the intervertebral disc, replacing the nucleus pulposus while preserving the annulus fibrosus. It has not been shown to be effective relative to other gold standard interventions.
- **Conservative Therapy:** (Musculoskeletal) includes primarily physical therapy and /or injections; and a combination of modalities, such as rest, ice, heat, modified activities, medical devices (such as braces), medications, diathermy, chiropractic treatments, or physician supervised home exercise program.
- **Home Exercise Program - (HEP)** – the following two elements are required to meet guidelines for completion of conservative therapy:
  - Documentation provided of an exercise prescription/plan; **AND**
  - Follow up with member with information provided regarding completion of HEP (after suitable 4-6 week period), or inability to complete HEP due to physical reason- i.e.

increased pain, inability to physically perform exercises. (Patient inconvenience or noncompliance without explanation does not constitute “inability to complete” HEP).

- **Isolated Low Back Pain** - Pain isolated to the lumbar region of the spine and the surrounding paraspinal musculature. Also referred to ‘mechanical low back pain’ or ‘discogenic pain’. No associated neurogenic claudication or radiculopathy.
- **Claims Billing & Coding:**
  - NIA uses a combination of internally developed edits in addition to an enhanced set of industry standard editing. NIA’s Claims Edit Module is a group of system edits that run multiple times per day. Edits that are part of this module include industry standard edits that apply to spine surgery services and NIA custom edits developed specifically for spine surgery. The following describes each of the edits NIA applies:
- **Outpatient Code Editor (OCE):** This edit performs all functions that require specific reference to HCPCS codes, HCPCS modifiers, and ICD-9-CM diagnosis codes. The OCE only functions on a single claim and does not have any cross claim capabilities. NIA is consistent with CMS.
- **National Correct Coding Initiative (NCCI) editing:** The edit prevents improper payment when incorrect code combinations are reported. The NCCI contains two tables of edits. The Column One/Column Two Correct Coding Edits table and the Mutually Exclusive Edits table include code pairs that should not be reported together for a number of reasons explained in the Coding Policy Manual. NIA is consistent with CMS.
  - Incidental edits: This edit applies if a procedure being billed is a component of another procedure that occurred on the same date of service for the same provider and tax ID and claimant.
  - Mutually exclusive editing: This edit applies if a procedure being billed is mutually exclusive with a procedure that occurred on the same date of service for the same provider tax ID and claimant.
- **Multiple Procedure Discounts (MPD):** This edit applies a reduction to the second and any other subsequent services by the same provider, in the same setting, for the same member. We typically apply a 50% reduction. NIA follows the CMS methodology that began in January 2011 which allows for application of MPD to codes within CMS’s two specific advanced imaging code families. However, NIA differs from CMS in that we apply MPD to all provider types unless health plan contracts prohibit this.
- **Lumbar Fusion** - Fusions can be performed either anteriorly, laterally, or posteriorly, or via a combined approach, although simple posterolateral fusions are indicated in the great majority of cases requiring fusion. Aggressive surgical approaches to fusion may be an indication for denial of cases (when such techniques have not been demonstrated to be superior to less morbid techniques) or recommendation for alternative procedure. These are the surgical approaches:
  - Intertransverse Fusion or Posterolateral Fusion

## TABLE OF CONTENTS

- Anterior Interbody Fusion (ALIF)
- Lateral or Transpsoas Interbody Fusion (XLIF)
- Posterior or Trans-foraminal Interbody Fusion (PLIF or TLIF)
- Anterior/posterior Fusion (360-degree)
- Pre-sacral, axial lumbar interbody fusion (AxiaLIF) is still being investigated and is not recommended.
- Use of bone grafts including autologous or allograft which might be combined with metal or biocompatible devices to produce a rigid, bony connection between two or more adjacent vertebrae are common. Bone formation or grafting materials including biologics should be used at the surgeon's discretion; however, use of biologics should be limited to FDA approved indications in order to limit complications (especially BMP).
- All operative interventions must be based upon positive correlation of clinical findings, clinical course, and diagnostic tests and must be performed by surgeons with appropriate training (neurosurgery, orthopaedic surgery). A comprehensive assimilation of these factors must lead to a specific diagnosis with positive identification of pathologic condition(s). A failure of accurate correlation may be an indication for denial of cases. 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.
- Operative treatment is indicated when the natural history of surgically treated lesions is better than the natural history for non-operatively treated lesions.
  - All patients being considered for surgical intervention should first undergo a comprehensive neuro-musculoskeletal examination to identify mechanical pain generators that may respond to non-surgical techniques or may be refractory to surgical intervention.
  - While sufficient time allowances for non-operative treatment are required to determine the natural cause and response to non-operative treatment of low back pain disorders, timely decision making for operative intervention is critical to avoid de-conditioning and increased disability (exclusive of "emergent" or urgent pathology such as cauda equina syndrome or associated rapidly progressive neurologic loss).
- In general, if the program of non-operative treatment fails, operative treatment is indicated when:
  - Improvement of the symptoms has plateaued or failed to occur and the residual symptoms of pain and functional disability are unacceptable at the end of 6 to 12 weeks of active treatment, or at the end of longer duration of non-operative programs for debilitated patients with complex problems; and/or

## TABLE OF CONTENTS

- Frequent recurrences of symptoms cause serious functional limitations even if a non-operative active treatment program provides satisfactory relief of symptoms, and restoration of function on each recurrence.
- **Lumbar spinal stenosis and associated lumbar spondylolisthesis** - Spinal stenosis is narrowing of the spinal column or of the neural foramina where spinal nerves leave the spinal column. The most common cause is degenerative change in the lumbar spine. Neurogenic claudication is the most common symptom, referring to “leg symptoms encompassing the buttock, groin and anterior thigh, as well as radiation down the posterior part of the leg to the feet.” In addition to pain, leg symptoms can include fatigue, heaviness, weakness and/or paresthesia. Some patients may also suffer from accompanying back pain. Symptoms are worse when standing or walking and are relieved by sitting. Lumbar spinal stenosis is often a disabling condition, and it is the most common reason for lumbar spinal surgery in adults over 65 years.
- **Degenerative lumbar spondylolisthesis** - is the displacement of a vertebra in the lower part of the spine; one lumbar vertebra slips forward on another with an intact neural arch and begins to press on nerves. The slippage occurs at the L4-L5 level most commonly. The most common cause, in adults, is degenerative disease although it may also result from bone diseases and fractures. Spondylolisthesis seldom occurs before the age of 50 years and it disproportionately affects women, especially black women. Degenerative spondylolisthesis is not always symptomatic. *The indications for fusion in this group are evolving and as more evidence emerges, changes to the accepted indications and acceptable techniques used may be made.*
- **Lumbar degenerative disease without stenosis or spondylolisthesis** - Spondylosis is an umbrella term describing age-related degeneration of the spine. Lumbar degenerative disease without stenosis or spondylolisthesis is characterized by disabling low back pain and spondylosis at L4-5, L5-S1, or both levels.

### **POLICY HISTORY SUMMARIES:**

November 2018

- Lumbar Discectomy/Microdiscectomy and Lumbar Decompression: Removed ‘sensory’ from neurological deficit
- Added and updated references

October 2019

- “in the last 6 months” added to further define the conservative care requirement
- Modified contraindication section to include ‘relative’

October 2020

- New reference added

June 2021

- No changes

## [TABLE OF CONTENTS](#)

January 2022

- Added CPT Code +63052, +63053

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