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2025 Spine Surgery Procedures

Musculoskeletal Procedures

MSK-SPINE-HH

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Spine Surgery Procedures

Spine Surgery General Contraindications

Spinal surgery are contraindicated due to **ANY** of the following conditions:

- Medical comorbid conditions that increase surgical risks (e.g., systemic infection, infection around operative area of spine, severe cardiovascular or pulmonary diseases, malnutrition, anemia)
- Morbid obesity (body mass index [BMI] is 40 or higher)
- Nicotine/tobacco use within 6 weeks of surgery (Nicotine/tobacco products include cigar, cigarette, e-cigarettes, nicotine patch, smokeless tobacco or vape pen).
- Psychological and behavioral health conditions that modify pain presentation (eg, depression, hypochondriosis) or mimic radiculopathy or instability (eg, peripheral neuropathy, piriformis syndrome, myofascial pain, sacroiliac dysfunction) have NOT been ruled-out.

References: [69] [24] [16] [5] [30]

Cervical Spine Procedures

Cervical Spine Procedures Related National Coverage Determination (NCD)/Local Coverage Determination (LCD)

Please refer to https://www.cms.gov/medicare-coverage-database/search.aspx if applicable to the individual's healthplan membership.

Type/ID Number	Title
LCD 33569	Percutaneous Vertebral Augmentation (PVA) for Osteoporotic Vertebral Compression Fracture (VCF)
LCD 34228	Percutaneous Vertebral Augmentation (PVA) for Osteoporotic Vertebral Compression Fracture (VCF)
LCD 34976	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 35130	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 38033	Cervical Disc Replacement
LCD 38201	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 38737	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 39741	Cervical Fusion
LCD 39758	Cervical Fusion

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Type/ID Number	Title
LCD 39770	Cervical Fusion
LCD 39773	Cervical Fusion
LCD 39788	Cervical Fusion
LCD 39793	Cervical Fusion
LCD 39799	Cervical Fusion

Clinical Judgment

These medical policies are designed to provide clinical guidance and do not supplant a provider's independent professional judgment. Physicians retain full and independent authority to determine appropriate care based on each patient's individual clinical circumstances. Although services may be subject to documentation requirements, medical necessity review, or coverage limitations, nothing in this policy is intended to restrict or interfere with a physician's independent medical judgment.

Contraindications of Cervical Spine Arthrodesis

Contraindications of cervical spine arthrodesis includes **ANY** of the following:

1. Active infection and known malignancy
2. Allergy to the implant and inflammatory spondyloarthropathy
3. Ankylosis
4. Congenital cervical stenosis and segmental cervical instability
5. Metabolic bone disease and osteoporosis
6. Ossification of the posterior longitudinal ligament and systemic disease
7. Severe facet arthropathy
8. Severe kyphotic deformity
9. Substantially collapsed disc space (collapse greater than 50%) and prior surgery at the same level of surgery.

References: [15] [52] [4]

Cervical Spine Arthrodesis Guideline

Cervical spine arthrodesis is considered medically appropriate when documentation demonstrates **ALL** of the following:

1. Clinical condition includes **ANY** of the following:

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a. Cervical disc herniation
b. Cervical instability
c. Cervical spondylosis
d. Cervical stenosis

2. Symptoms includes **ANY TWO** of the following:
   a. Clonus e.g., rhythmic, involuntary muscle contractions in ankles, jaw, knees, or wrists
   b. Myelopathy e.g., upper extremity weakness, hyperreflexia, gait disturbances, and bowel or bladder dysfunction
   c. Neck pain with extension, and limited neck range of motion
   d. Positive Spurling sign
   e. Radiculopathy e.g., radiating upper extremity pain, numbness, or paresthesias
   f. Sensory abnormalities and loss of fine motor dexterity
3. Imaging for presurgical evaluation within 6 months before surgery includes **ANY** of the following:
   a. CT Myelogram of the cervical spine
   b. CT scan of the cervical spine
   c. MRI of the cervical spine
   d. X-rays of the cervical spine
4. Conservative therapy attempted including **ALL** of the following:
   a. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability. (***NOTE:** If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)
   b. Pain management plan includes **EITHER** of the following:
      i. Medication with non-steroidal anti-inflammatory drugs (NSAIDS) for 4 weeks.
      ii. Non-medication pain management interventions attempted for 4 to 12 weeks (eg, ice/heat, exercises, weight-limits, rest periods, splints.)

References: [59] [49] [9] [15] [76]

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Cervical Spine Corpectomy Guideline

A cervical spine corpectomy:
Experimental/Investigational
The role of this therapy is uncertain or not established based on the available evidence. Requests that do not clearly meet established evidence standards for medical necessity, including when clinical benefit, safety effectiveness or broad acceptance in peer-reviewed medical literature is not established, will be referred for review by physician reviewer, medical director and/or individual's health plan in accordance with applicable benefit plan requirements.
References: [26] [72]

Cervical Spine Disc Arthroplasty Contraindications

Contraindications to cervical artificial disc replacement includes **ANY** of the following:

1. Allergy to implant materials (e.g., titanium, polyethylene, cobalt, chromium, molybdenum)
2. Autoimmune disease/spondyloarthropathies, (eg, rheumatoid arthritis, ankylosing spondylitis)
3. Bone disease, metabolic (e.g., Paget disease, osteomalacia)
4. Cervical instability (movement of the vertebra exceeds 3 mm in translation)
5. Facet joint degeneration
6. Infection is active, local and/or systemic
7. Malignancy is active or a history of invasive malignancy (unless treated and asymptomatic for at least 5 years).
8. Medications that interfere with bone/soft-tissue healing (e.g., corticosteroids)
9. Neck or arm pain of unknown etiology
10. Neck pain, axial, is the only presenting symptom.
11. Obesity, morbid (body mass index [BMI] more than 40 or weight more than 100 lb over ideal body weight)
12. Osteoporosis/osteopenia
13. Post-traumatic vertebral body deficiency/deformity
14. Spondylosis is severe (bridging osteophytes, disc height loss more than 50% and absence of motion less than 2 degrees).
15. Systemic disease (acquired immune deficiency syndrome, human immunodeficiency virus, hepatitis B or C and insulin-dependent diabetes)

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16. Vertebral levels requiring treatment are more than 3.

References: [29] [32] [63]

Cervical Spine Disc Arthroplasty Guideline

Cervical artificial disc replacement (arthroplasty) is considered medically appropriate when the documentation demonstrates **ALL** of the following:

1. Conservative therapy attempted including **ALL** of the following:
    a. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability. (*__NOTE:__ If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required,with a reevaluation of pain and functional status prior to considering surgical intervention.)
    b. Pain management plan includes **EITHER** of the following:
        i. Medication with non-steroidal anti-inflammatory drugs (NSAIDS) for at least 4 weeks.
        ii. Non-medication pain management interventions attempted (eg, ice/heat, exercises, weight-limits, rest periods, splints)
2. Imaging studies (computed tomography [CT], magnetic resonance imaging [MRI]) demonstrate compression at levels corresponding to clinical findings.
3. Radiculopathy is intractable due to 1 or 2 level disc disease at C3 to C7, resulting in central, lateral recess or foraminal compression (herniated or spondolytic osteophyte)

References: [29] [46] [17]

Cervical Spine Decompression or Fusion Contraindications

Contraindications for a cervical spine decompression or fusion include **ANY** of the following:

1. Asymptomatic or minimally symptomatic disease without clinically significant functional impairment (e.g., mild radiculopathy without significant motor deficits,minimal symptoms, or incidental imaging findings, mild neck pain without substantial functional impairment, mild myelopathy with minimal clinical signs, mild disc herniation with occasional discomfort, mild facet joint degeneration without severe pain or instability)
2. Kyphosis is known and decompression alone **OR** kyphosis is high risk and is post operatively.

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3. Neck pain with **NO** neurological deficits, e.g., no motor weakness, sensory loss, cognitive dysfunction, coordination issues and **NO** spinal nerve root or cord compression is demonstrated on imaging (X-rays, MRI or CT scan)

References: [71] [45]

Cervical Spine Decompression: Anterior With Fusion (ACDF) or without Fusion • Posterior With or without Fusion Guideline

Laminectomy • Laminoforaminotomy • Laminoplasty

Cervical spine decompression uses anterior approaches (with or without fusion) for conditions like cervical stenosis, foraminal stenosis, disc herniation, instability and cervical spondylosis, and posterior approaches with or without fusion for multilevel disease, foraminal disc herniation and pseudoarthrosis.
An anterior cervical decompression with fusion (ACDF) or posterior cervical decompression with or without fusion (laminectomy, laminoforaminotomy, laminoplasty) is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Cervical myelopathy or radiculopathy from deformity, ruptured disc, spinal instability or spondylosis and **ALL** of the following:(*__NOTE:__ Myelopathy with spinal cord compression symptoms [eg, progressive neurological deficits including extremity weakness, gait/ coordination disturbance, hyperreflexia, clonus, positive Babinski or Hoffman sign] requires immediate surgical evaluation).
    a. Conservative therapy attempted including **ALL** of the following:
        i. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability.(*__NOTE:__ If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)
        ii. Pain management plan includes **EITHER** of the following:
            A. Medication with non-steroidal anti-inflammatory drugs (NSAIDs) for *at least 4 weeks.*
            B. Non-medication pain management interventions attempted (e.g., ice/heat, exercises, weight- lifting, rest periods, splints)
    b. Imaging (computed tomography [CT], magnetic resonance imaging [MRI]) within 6 months before surgery demonstrates spinal cord or nerve root compression at the levels corresponding to clinical findings.

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2. Decompression **WITH** fusion as first-line treatment, **WITHOUT** conservative care and **ALL** of the following
    a. Spinal cord or nerve compression is significant and due to infection, trauma or tumor.**NOTE:** Significant compression is indicated by a spinal canal diameter less than 10 mm. Clinical symptoms such as hand numbness, gait disturbance, and upper extremity weakness are indicative of significant compression
    b. X-rays demonstrate fracture or instability measure of **EITHER** of the following:
        i. C1 level subluxation of the atlantodental interval of more than 3 mm in adult or 5 mm in a child
        ii. Sagittal plane angle with ANY of the following: more than 11 degrees for a single interspace or more than 3.5 mm anterior subluxation associated with cord/radicular dysfunction.
3. Decompression **WITHOUT** fusion as first-line treatment **WITHOUT** conservative care and **ALL** of the following:
    a. Spinal cord or nerve compression is significant and due to infection, trauma or tumor. **NOTE**: Significant compression is indicated by a spinal canal diameter less than 10 mm. Clinical symptoms such as hand numbness, gait disturbance, and upper extremity weakness are indicative of significant compression
    b. **NO** spinal instability demonstrated on X-ray.

References: [68] [43] [21] [59] [45] [76] [25] [8] [72] [34] [36]

Cervical Spine Decompression: Anterior AND Posterior With or without Fusion Guideline

Anterior **AND** posterior cervical spine decompression, with or without fusion, is considered medically appropriate when the documentation demonstrates **ALL** of the following:

1. Comorbidities are well managed (e.g., comorbid behavioral health diagnosis is addressed).
2. Conservative therapy attempted including **ALL** of the following:
    a. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability.(*__NOTE:__ If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)
    b. Pain management plan includes **EITHER** of the following:

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i. Medication with non-steroidal anti-inflammatory drugs (NSAIDs) for *at least 4 weeks.*

ii. Non-medication pain management interventions attempted (e.g., ice/heat, exercises, weight-limits, rest periods, splints)

3. Imaging (X-ray, computed tomography [CT], magnetic resonance imaging [MRI]) demonstrates disc pathology or spinal instability.

4. Neck pain is axial, non-radicular and pain generators (eg, cervical intervertebral discs, cervical zygapophyseal (facet) joints, ligaments, atlantoaxial joints) are defined and treated.

5. Spine pathology affects 2 levels or less.

References: [68] [43] [21] [42] [67]

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Cervical Spine Surgery Procedure Codes

Table 1. Cervical Spine Surgery Associated Procedure Codes

CODE	DESCRIPTION
22210	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; cervical
22220	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; cervical
22510	Percutaneous vertebroplasty (bone biopsy included when performed), 1 vertebral body, unilateral or bilateral injection, inclusive of all imaging guidance; cervicothoracic
22526	Percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; single level
22548	Arthrodesis, anterior transoral or extraoral technique, clivus-C1-C2 (atlas-axis), with or without excision of odontoid process
22551	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2
22554	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2
22590	Arthrodesis, posterior technique, craniocervical (occiput-C2)
22595	Arthrodesis, posterior technique, atlas-axis (C1-C2)
22600	Arthrodesis, posterior or posterolateral technique, single interspace; cervical below C2 segment
22800	Arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments
22802	Arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments
22804	Arthrodesis, posterior, for spinal deformity, with or without cast; 13 or more vertebral segments
22808	Arthrodesis, anterior, for spinal deformity, with or without cast; 2 to 3 vertebral segments
22810	Arthrodesis, anterior, for spinal deformity, with or without cast; 4 to 7 vertebral segments
22812	Arthrodesis, anterior, for spinal deformity, with or without cast; 8 or more vertebral segments
22818	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); single or 2 segments
22819	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); 3 or more segments
22849	Reinsertion of spinal fixation device
22850	Removal of posterior nonsegmental instrumentation (eg, Harrington rod)
22852	Removal of posterior segmental instrumentation
22855	Removal of anterior instrumentation
22856	Total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes osteophytectomy for nerve root or spinal cord decompression and microdissection); single interspace, cervical
22861	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
22864	Removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical
63001	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; cervical

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CODE	DESCRIPTION
63015	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; cervical
63020	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, cervical
63040	Laminotomy (hemilaminectomy), with decompression of nerve root (s), including partial facectomy, foraminotomy and / ot excision or herniated intervertebral disc, reexploration, single interspace; cervical
63045	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; cervical
63050	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments;
63051	Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments; with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices [eg, wire, suture, mini-plates], when performed)
63075	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace
63081	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve root(s); cervical, single segment
63185	Laminectomy with rhizotomy; 1 or 2 segments
63190	Laminectomy with rhizotomy; more than 2 segments
63191	Laminectomy with section of spinal accessory nerve
63250	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; cervical
63300	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, cervical
63304	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, cervical
0219T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; cervical
0274T	Percutaneous laminotomy/laminectomy (interlaminar approach) for decompression of neural elements, (with or without ligamentous resection, discectomy, facetectomy and/or foraminotomy), any method, under indirect image guidance (eg, fluoroscopic, CT), with or without the use of an endoscope, single or multiple levels, unilateral or bilateral; cervical or thoracic

Lumbar-Sacral Spine Procedures

Lumbar Spine Procedures Related National Coverage Determination (NCD)/Local Coverage Determination (LCD)

Please refer to https://www.cms.gov/medicare-coverage-database/search.aspx if applicable to the individual's healthplan membership.

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Type/ID Number	Title
NCD 150.13	Percutaneous Image-Guided Lumbar Decompression for Lumbar Spinal Stenosis
LCD 33569	Percutaneous Vertebral Augmentation (PVA) for Osteoporotic Vertebral Compression Fracture (VCF)
LCD 34228	Percutaneous Vertebral Augmentation (PVA) for Osteoporotic Vertebral Compression Fracture (VCF)
LCD 34976	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 35130	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 37826	Lumbar Artificial Disc Replacement
LCD 37848	Lumbar Spinal Fusion
LCD 38201	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)
LCD 38737	Percutaneous Vertebral Augmentation (PVA) for Vertebral Compression Fracture (VCF)

Clinical Judgment

These medical policies are designed to provide clinical guidance and do not supplant a provider's independent professional judgment. Physicians retain full and independent authority to determine appropriate care based on each patient's individual clinical circumstances. Although services may be subject to documentation requirements, medical necessity review, or coverage limitations, nothing in this policy is intended to restrict or interfere with a physician's independent medical judgment.

Contraindications of Lumbar Spine Arthrodesis

Contraindications to lumbar spine arthrodesis includes **ANY** of the following:

1. Active infection
2. Severe osteoporosis
3. Significant medical comorbidities, eg, severe cardiopulmonary disease,active infection, malignancy, renal failure, active hepatitis, osteomyelitis, neuromuscular disease, ankylosed spine, pregnancy, psychosocial disorders, osteoporosis, endocrine/metabolic disorders, severe hepatic impairment.

References: [27] [24]

Lumbar Spine Arthrodesis Guideline

Lumbar spine arthrodesis is considered medically appropriate when documentation demonstrates **ALL** of the following:

1. Clinical condition includes **ANY** of the following:
    a. Spinal instability

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b. Significant chronic axial back pain and **ANY** of the following:

i. Degenerative spondylolisthesis

ii. Neurogenic claudication.

2. Conservative therapy attempted including **ALL** of the following:

a. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability. (***NOTE:** If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)

b. Pain management plan includes **EITHER** of the following:

i. Medication with non-steroidal anti-inflammatory drugs (NSAIDS) for 4 weeks.

ii. Non-medication pain management interventions attempted for 3 to 6 months (e.g., ice/heat, exercises, weight-limits, rest periods, splints)

3. Imaging for presurgical evaluation within 6 months before surgery includes **ANY** of the following:

a. CT Myelogram of the lumbar spine

b. CT scan of the lumbar

c. MRI of the lumbar

d. X-rays of the lumbar

References: [57] [9][49] [27] [31]

Lumbar Spine Decompression Guideline

Facetectomy • Foraminotomy • Laminectomy • Laminotomy

Lumbar decompression (facetectomy, foraminotomy, laminectomy, laminotomy) is considered medically appropriate when the documentation demonstrates **ALL** of the following:

1. Activities of daily living (ADLs)(eg, bathing, dressing, eating) are impaired due to neurogenic claudication and/or radicular leg pain.

2. Conservative therapy attempted including **ALL** of the following:

a. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability. (***NOTE:** If PT notes demonstrate improvement in

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pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)

b. Pain management plan includes **EITHER** of the following:

i. Medication with non-steroidal anti-inflammatory drugs (NSAIDS) for at least 4 weeks.

ii. Non-medication pain management interventions attempted (e.g., ice/heat, exercises, weight-limits, rest periods, splints)

3. Imaging (e.g., CT, MRI)demonstrates moderate to severe stenosis that is consistent with clinical findings.

Reference: [37] [70] [51]

Lumbar Fusion Guideline

Lumbar Fusion: Single Level With or without Decompression

Lumbar fusion at a single level, with or without decompression (laminectomy, laminotomy, facetectomy, foraminotomy) is considered medically appropriate when documentation demonstrates **ALL** of the following:

1. Imaging studies (X-ray, MRI, CT) align with clinical findings
2. Lumbar back pain, neurogenic claudication and/or radicular leg pain **WITHOUT** sensory or motor deficit that impairs activities of daily living (ADLs) for at least 6 months.
3. **ONE** of the following:

a. Cauda equina syndrome (loss of bladder/bowel control)

b. Chronic low back pain (12 weeks or greater) or degenerative disc disease (disc degeneration **WITHOUT** significant neurological compression presenting with low back pain) and **ALL** of the following:

i. Cognitive behavioral rehabilitation program evaluation to identify underlying non-medical issue

ii. Conservative therapy attempted including **ALL** of the following:

A. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability. (*__NOTE:__ If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required,

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with a reevaluation of pain and functional status prior to considering surgical intervention.)

B. Pain management plan includes **EITHER** of the following:

I. Medication with non-steroidal anti-inflammatory drugs (NSAIDS) for at least 4 weeks.

II. Non-medication pain management interventions attempted (eg, ice/heat, exercises, weight-limits, rest periods, splints)

c. Neurological deficit(s) (e.g., weakness, loss of sensation, difficulty speaking or understanding, impaired vision or balance) and cognitive impairments (eg, memory loss) are acute, progressive and significant (eg, motor function 5-point scale for L5 or S1 roots is 0 to 2, or for L3 and L4 roots is 0 to 3).

4. Condition includes **ANY** of the following:

a. **ANY** of the following:

i. Disk herniations are repetitive.

ii. Prior procedure was for pseudoarthrosis, at the same level.

b. Fusion for the treatment of spinal tumor, cancer or infection

c. Revision surgery due to **FAILED** previous procedure(s) and ALL of the following: (*__NOTE__: Many recurrent disc herniations can be treated with discectomy alone, so specific indications for the addition of fusion are required)

i. Prior surgery is at least 6 months ago.

ii. Significant functional gains (e.g., improvements in pain, disability, and physical function), as well as radiographic outcomes (eg, increased lumbar lordosis and disk height restoration).

d. Segmental instability/excessive motion (eg, degenerative spondylolisthesis, segmental instability, surgically induced segmental instability)

e. Spondylolisthesis (eg, congenital unilateral neural arch hypoplasia, degenerative spondylolisthesis, neural arch defect)

References: [43] [21] [57] [7] [37][60] [13] [51]

Lumbar Fusion: Repeat or Multi-Level With or without Decompression

Repeat lumbar fusions or multi-level lumbar fusions (with or **WITHOUT** decompression): Experimental/Investigational

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The role of this therapy is uncertain or not established based on the available evidence. Requests that do not clearly meet established evidence standards for medical necessity, including when clinical benefit, safety effectiveness or broad acceptance in peer-reviewed medical literature is not established, will be referred for review by physician reviewer, medical director and/or individual's health plan in accordance with applicable benefit plan requirements.
Reference: [28]

Pediatric Scoliosis

Pediatric Scoliosis surgical treatment is considered medically appropriate when documentation demonstrates **ALL** of the following:

1. Symptoms includes **ANY TWO** or more of the following:
    a. Asymmetry in shoulder height or iliac crests.
    b. Back pain or fatigue less common in early stages.
    c. Postural changes or leaning to one side.
    d. Rib hump or prominence on one side when bending forward (Adams forward bend test).
    e. Uneven waistline or hips.
    f. Visible curvature of the spine.
2. Imaging for presurgical evaluation within the last 3 to 6 months includes **ANY** of the following:
    a. X-rays (posteroanterior and lateral view) for initial imaging
    b. MRI for evaluation of neurological or atypical curve patterns
    c. CT scan for detailed bony anatomy evaluation
3. Treatment Includes **ALL** of the following:
    a. Conservative therapy attempted including **ALL** of the following:
        i. Brace or orthotic use continued until skeletal maturity (end of growth) before considering surgery, or until the curve progresses beyond 45 degrees.
        ii. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability.(*__NOTE:__ If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)

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b. Surgical Management attempted including **ANY** of the following:

i. Posterior spinal fusion performed when the curve reaches 45 to 50 degrees and the child is near or at skeletal maturity.

ii. Vertebral body tethering (VBT) - for growing children with curves between 40 to 65 degrees who are not yet skeletally mature.

iii. Growing rods or magnetic rods- used in younger children (typically under age 10) curve greater than 40 degrees with early-onset scoliosis and significant growth remaining.

References [35] [55] [23] [51]

Percutaneous Lumbar Discectomy / Disc Decompression Guideline

Percutaneous lumbar discectomy/disc decompression procedures:
Experimental/Investigational
The role of this therapy is uncertain or not established based on the available evidence. Requests that do not clearly meet established evidence standards for medical necessity, including when clinical benefit, safety effectiveness or broad acceptance in peer-reviewed medical literature is not established, will be referred for review by physician reviewer, medical director and/or individual's health plan in accordance with applicable benefit plan requirements.

Lumbar Spine Discectomy/Microdiscectomy Guideline

A lumbar discectomy/microdiscectomy is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Herniation of the inter-vertebral disc is demonstrated on imaging (MRI) that exactly correlates to clinical findings and **ALL** of the following:

a. Conservative therapy attempted including **ALL** of the following:

i. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability.(*__NOTE:__ If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)

ii. Pain management plan includes **EITHER** of the following:

A. Medication with non-steroidal anti-inflammatory drugs (NSAIDs) for *at least 4 weeks.*

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B. Non-medication pain management interventions attempted (e.g.,ice/heat, exercises, weight-limits, rest periods, splints)

b. Radicular symptoms causing functional impairment

2. Microdiscectomy is a first line treatment **WITHOUT** conservative therapy for **ANY** of the following:

a. Cauda equina syndrome (e.g., bladder/bowel control is lost.

b. Neurological deficit is significant (motor function scale for L3 or L4 roots 0 to 3 out of 5 or for L5 or S1 roots is 0 to 2 out of 5).

References: [14] [75] [18] [47]

Contraindications of Lumbar Osteotomy Spine

Contraindications to osteotomy spine includes **ANY** of the following:

1. Active infection
2. Allergy to bone cement or ossification agent
3. Septicemia
4. Severe osteoporosis or poor bone quality
5. Uncorrectable coagulopathy

Reference: [12]

Lumbar Osteotomy Spine Guideline

Lumbar osteotomy of the spine is considered medically appropriate when documentation demonstrates **ALL** of the following:

1. Clinical condition present for 6 to 12 months includes **ANY** of the following:

a. Rigid sagittal deformity, or severe fixed sagittal deformity

b. Moderate to severe sagittal imbalance

2. Symptoms include **ANY TWO** or more of the following:

a. Bowel or bladder dysfunction

b. Hyperreflexia or hypertonia

c. Hyporeflexia

d. Neurogenic claudication

e. Sensory disturbance in a radicular pattern

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f. Spastic gait

g. Weakness

3. Imaging for presurgical evaluation within 3 to 6 months before surgery includes **ALL** of the following:

   a. CT scan of the lumbar spine

   b. Dexa scan of the lumbar spine

   c. MRI of the lumbar spine

   d. X-rays of the lumbar spine

4. Conservative therapy attempted and **ALL** of the following:

   a. Physical therapy (PT) program that is supervised by a licensed physical therapist or chiropractor for at least 6 weeks in the past 6 months with **NO** improvement in symptoms or functional ability. (***NOTE:** If PT notes demonstrate improvement in pain or functional ability, additional conservative therapy (non-surgical) is required, with a reevaluation of pain and functional status prior to considering surgical intervention.)

   b. Pain management plan includes **EITHER** of the following:

      i. Medication with non-steroidal anti-inflammatory drugs (NSAIDS) for 4 weeks.

      ii. Non-medication pain management options eg, cognitive behavioral therapy, transcutaneous electrical nerve stimulation, acupuncture, or biofeedback for 3 to 6 months before surgical intervention.

References: [50] [41] [33] [64]

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Lumbar Spine Surgery Procedure Codes

Table 1. Lumbar Spine Surgery Associated Procedure Codes

CODE	DESCRIPTION
22207	Osteotomy of spine, posterior or posterolateral approach, 3 columns, 1 vertebral segment (eg, pedicle/vertebral body subtraction); lumbar
22214	Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; lumbar
22224	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; lumbar
22511	Percutaneous vertebroplasty (bone biopsy included when performed), 1 vertebral body, unilateral or bilateral injection, inclusive of all imaging guidance; lumbosacral
22514	Percutaneous vertebral augmentation, including cavity creation (fracture reduction and bone biopsy included when performed) using mechanical device (eg, kyphoplasty), 1 vertebral body, unilateral or bilateral cannulation, inclusive of all imaging guidance; lumbar
22526	Percutaneous intradiscal electrothermal annuloplasty, unilateral or bilateral including fluoroscopic guidance; single level
22533	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22558	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22586	Arthrodesis, pre-sacral interbody technique, including disc space preparation, discectomy, with posterior instrumentation, with image guidance, includes bone graft when performed, L5-S1 interspace
22612	Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed)
22630	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; lumbar
22633	Arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression), single interspace and segment; lumbar
22800	Arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments
22802	Arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments
22804	Arthrodesis, posterior, for spinal deformity, with or without cast; 13 or more vertebral segments
22808	Arthrodesis, anterior, for spinal deformity, with or without cast; 2 to 3 vertebral segments
22810	Arthrodesis, anterior, for spinal deformity, with or without cast; 4 to 7 vertebral segments
22812	Arthrodesis, anterior, for spinal deformity, with or without cast; 8 or more vertebral segments
22818	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); single or 2 segments
22819	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); 3 or more segments
22849	Reinsertion of spinal fixation device
22850	Removal of posterior nonsegmental instrumentation (eg, Harrington rod)
22852	Removal of posterior segmental instrumentation

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CODE	DESCRIPTION
22855	Removal of anterior instrumentation
22857	Total disc arthroplasty (artificial disc), anterior approach, including discectomy to prepare interspace (other than for decompression), single interspace, lumbar
22862	Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; lumbar
22865	Removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; lumbar
22867	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance when performed, with open decompression, lumbar; single level
22869	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion, including image guidance when performed, lumbar; single level
62380	Endoscopic decompression of spinal cord, nerve root(s), including laminotomy, partial facetectomy, foraminotomy, discectomy and/or excision of herniated intervertebral disc, 1 interspace, lumbar
63005	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; lumbar, except for spondylolisthesis
63011	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; sacral
63012	Laminectomy with removal of abnormal facets and/or pars inter-articularis with decompression of cauda equina and nerve roots for spondylolisthesis, lumbar (Gill type procedure)
63017	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; lumbar
63030	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar
63042	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; lumbar
63047	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; lumbar
63056	Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (eg, herniated intervertebral disc), single segment; lumbar (including transfacet, or lateral extraforaminal approach) (eg, far lateral herniated intervertebral disc)
63087	Vertebral corpectomy (vertebral body resection), partial or complete, combined thoracolumbar approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic or lumbar; single segment
63090	Vertebral corpectomy (vertebral body resection), partial or complete, transperitoneal or retroperitoneal approach with decompression of spinal cord, cauda equina or nerve root(s), lower thoracic, lumbar, or sacral; single segment
63102	Vertebral corpectomy (vertebral body resection), partial or complete, lateral extracavitary approach with decompression of spinal cord and/or nerve root(s) (eg, for tumor or retropulsed bone fragments); lumbar, single segment
63185	Laminectomy with rhizotomy; 1 or 2 segments
63190	Laminectomy with rhizotomy; more than 2 segments
63191	Laminectomy with section of spinal accessory nerve
63200	Laminectomy, with release of tethered spinal cord, lumbar

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CODE	DESCRIPTION
63252	Laminectomy for excision or occlusion of arteriovenous malformation of spinal cord; thoracolumbar
63303	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; extradural, lumbar or sacral by transperitoneal or retroperitoneal approach
63307	Vertebral corpectomy (vertebral body resection), partial or complete, for excision of intraspinal lesion, single segment; intradural, lumbar or sacral by transperitoneal or retroperitoneal approach
0202T	Posterior vertebral joint(s) arthroplasty (eg, facet joint[s] replacement), including facetectomy, laminectomy, foraminotomy, and vertebral column fixation, injection of bone cement, when performed, including fluoroscopy, single level, lumbar spine
0221T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; lumbar
0275T	Percutaneous laminotomy/laminectomy (interlaminar approach) for decompression of neural elements, (with or without ligamentous resection, discectomy, facetectomy and/or foraminotomy), any method, under indirect image guidance (eg, fluoroscopic, CT), with or without the use of an endoscope, single or multiple levels, unilateral or bilateral; lumbar
C9757	Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and excision of herniated intervertebral disc, and repair of annular defect with implantation of bone anchored annular closure device, including annular defect measurement, alignment and sizing assessment, and image guidance; 1 interspace, lumbar
S2350	Diskectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; lumbar, single interspace

Spine Procedures Summary of Changes

The Spinal Procedures Guidelines from 2024 to 2025 had the following changes:

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Table 1. 2025 Spine Summary of Changes

Date	Type of Change	Summary
12/11/2025	Mid-Cycle Review	• Added: Cervical Arthrodesis Indication/criteria in the Cervical Guideline based on evidence. • Added: Lumbar Arthrodesis and Osteotomy Spine Guideline Indication/criteria in the Lumbar Guideline based on evidence. • Added: NCD 150.13 Percutaneous Image-Guided Lumbar Decompression for Lumbar Spinal Stenosis • Revised the existing physician-review referral language for therapies with uncertain or not established evidence to align with the Experimental/Investigational Policy. This is a language clarification only and does not change the current review process.
11/17/2025	Mid-Cycle Review	• PEDs MSK SPINE UPDATE: • Added: Pediatric Scoliosis Indication/criteria based on evidence. • Removed: Retired LCDs (L39762) and Retired (L34106) for Cervical Spine Surgery.
07/24/2025	Annual Review	• Added in the Spine Surgery Contraindication examples of nicotine/tobacco products for clarity. • Added to Cervical Spine Decompression or Fusion Contraindications: additional contra-in dications and examples of imaging (X-rays, MRI or CT scan), as per evidence from AAOS. • Added to Cervical Spine Decompression: Anterior AND Posterior With or WITHOUT Fu sion Guideline: examples of pain generators, as per evidence from AAOS. • Added to Cervical Spine Decompression: Anterior With Fusion (ACDF) or Without Fu-sion • Posterior With or Without Fusion Guideline: Examples of conditions related to the proce dure were added. Added: Significant compression is indicated by a spinal canal diameter less than 10 mm. Clinical symptoms such as hand numbness, gait disturbance, and upper extremity weakness are indicative of significant compression, as per evidence from AAOS. • Added to the Lumbar Spine Decompression Guideline Imaging (MRI or CT scan). • Added to Lumbar Fusion Guideline: examples of Imaging studies (eg. X-rays and MRI with CT scans); Added: Chronic low back pain (12 weeks or greater). Added: examples of Neurological deficits. Added: examples of Significant functional gains, as well as ex-amples of radiographic outcomes, as per evidence from AAOS. • Added Joint Surgery Overview to guidelines • Changed Title Cervical Spine Decompression: Anterior Without Fusion • Cervical Spine Fusion: Anterior Without Decompression Guideline to: • Cervical Spine Decompression Anterior AND Posterior with Fusion • Cervical Spine Decompression Anterior With Fusion (ACDF) or WITHOUT Fusion, Posterior With or WITHOUT Fusion

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Date	Type of Change	Summary

		• Changed the following to keep in line with current evidence:
		  • Cervical Spine Decompression or Fusion Contraindication: Changed Neck pain with NO neurological defects to Neck pain with NO neurological deficits and examples were added.
		• Removed the following as current evidence no longer supports the indication :
		  • Lumbar Spine Decompression Guideline: Removed Lumbar spinal stenosis
		  • Removed: Cervical Procedure Codes 22552 and 22858 and Lumbar Procedure Code 22614 as these are NOT managed codes.
		• Citations updated per the evidence

Spine Surgery Definitions

Adam's forward bend test is a clinical screening for scoliosis in which a person stands with feet together and bends forward at the waist with arms hanging, allowing an examiner to visually inspect the back for asymmetry in the spine or rib cage, such as a "rib hump," which indicates a potential spinal curve. It's a simple, non-invasive way to detect potential scoliosis and often uses a scoliometer, a device measuring spinal rotation, to confirm a positive finding.
(ADL) Activities of Daily Living, referring to basic self-care tasks (eating, bathing, dressing, toileting, mobility) essential for independence, especially for elderly or disabled individuals.
Annular refers to a ring-like part, structure, or marking of a body part.
Annuloplasty is surgical treatment of a ringlike anatomical part.
ALIF (anterior lumbar interbody fusion) is a common surgical solution for degenerative disk disease and other conditions that affect the disks in your lower back that cushion your vertebrae.
Arthrodesis is the surgical fusion of a joint.
Arthroplasty is the operative formation or restoration of a joint.
The **atlantodental interval (ADI)** is the distance between the odontoid process (dens) of the axis (C2 vertebra) and the anterior arch of the atlas (C1 vertebra). It's a measurement used to assess the stability of the atlantoaxial joint (the joint between C1 and C2), which is crucial for head movement.
Autoimmune spondyloarthropathies are a group of systemic autoinflammatory conditions characterized by inflammation of the axial and peripheral skeleton, entheses, and often associated with HLA-B27 genetic risk, but serologically negative for rheumatoid factor.
The **Babinski sign**, or reflex, is a neurological response to stimulation of the sole of the foot, where the big toe moves upward, and the other toes fan out, instead of the normal downward movement.

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Bone graft is a procedure where osseous matter is transplanted from a donor site to a recipient site, without anastomosis of nutrient vessels.

Cauda equina is the sack of nerve roots (nerves that leave the spinal cord between spaces in the bones of the spine to connect to other parts of the body) at the lower end of the spinal cord. These nerve roots provide the ability to move and feel sensation in the legs and the bladder.

Cauda equina syndrome is a neurologic emergency caused by compression of the nerve roots in the lumbar spine, leading to symptoms such as bowel and bladder dysfunction, saddle anesthesia, and varying degrees of motor and sensory loss in the lower extremities.

Cervical decompression surgery is a procedure that removes any structures compressing the nerves in the neck. The cervical section of the spine begins at he base of the skull and supports the neck. During surgery, a small section of the bone that is compressing the nerve root is removed to alleviate pressure and allow the nerve root to heal. Sometimes fragments of material from the spine are lodged under the nerve root as well, and are removed during cervical decompression surgery.

Cervical Fusion is a surgical procedure that links together damaged segments of the vertebral column in the neck. This surgery is usually required when the cervical vertebra and the discs between each vertebra have become damaged as a result of injury or chronic wear and tear. During surgery, the discs between one or more vertebra are removed, and bone growth is stimulated to link together adjacent vertebra. Often, a metal device is used to stabilize the fusion until the bone growth is solid.

Cervical myelopathy is a condition where the spinal cord in the neck (cervical spine) becomes compressed. This compression can lead to damage to the spinal cord and the nerves that branch out from it.

Cervical spine is the neck region of the spinal column or backbone. It consists of the first seven bones (C1-C7).

Cervical Spine Corpectomy is a surgical procedure involving the removal of one or more vertebral bodies and the adjacent intervertebral discs in the cervical spine to decompress the spinal cord. It is typically performed to treat conditions like cervical spondylotic myelopathy (CSM) and ossified posterior longitudinal ligament (OPLL).

Cervical spine decompression is a treatment used to relieve pain and other symptoms caused by compression of the nerves in the neck.

Cervical spinal stenosis is a condition where the spinal canal in the neck narrows, putting pressure on the spinal cord and nerves. This can lead to pain, numbness, tingling, and weakness in the neck, arms, and hands. In severe cases, it can also affect walking, balance, and even bowel and bladder function.

Cervical spondylosis, often referred to as arthritis of the neck, is a degenerative condition that affects the bones, discs, and joints in the neck. It's a result of the wear and tear that occurs in the cervical spine over time, leading to changes in the bones and discs. While many people with

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cervical spondylosis don't experience any symptoms, some may experience neck pain, stiffness, and potentially other symptoms like arm pain, numbness, or weakness.

Cervical spondylotic myelopathy (CSM) is a neck condition that arises when the spinal cord becomes compressed due to the wear-and-tear changes that occur in the spine with age.

Cervical zygapophyseal joints, also known as facet joints, are paired synovial joints located between the articular processes of adjacent cervical vertebrae. These joints are formed by the superior and inferior articular processes of adjacent vertebrae. They are innervated by the medial branch nerve arising from the dorsal rami. The joint capsules help restrain forward translation in the cervical spine. They can be a source of cervical pain, implicated in 25% to 45% of patients with cervical pain.

A **chiropractor** is a healthcare professional who diagnoses, treats, and prevents disorders of the neuromusculoskeletal system and their effects on general health, with a focus on spinal manipulation.

Chordoma is a type of bone cancer that usually starts in the lower spinal column or at the base of the skull.

Clonus is an abnormal reflex response that involves involuntary and rhythmic muscle contractions. It's typically a sign of an upper motor neuron lesion and commonly occurs alongside hyperreflexia, spasticity and muscle weakness. Certain treatments can help manage clonus.

The **Cobb angle** is the universal standard used by doctors to measure the severity of spinal deformities like scoliosis. Measured on a spinal X-ray, it calculates the degree of curvature by identifying the most tilted vertebrae at the top and bottom of the curve.

A **cognitive behavioral rehabilitation program** uses cognitive behavioral therapy (CBT) principles to help individuals improve their cognitive skills and daily functioning after a brain injury or other condition affecting cognitive abilities. It combines cognitive techniques, such as memory exercises and problem-solving games, with behavioral strategies for managing difficulties. The goal is to either restore or compensate for impaired cognitive functions, ultimately enhancing an individual's ability to participate in daily life.

Cognitive behavioral therapy (CBT) is a structured, goal-oriented form of talk therapy that teaches you how to identify and change negative or inaccurate thought patterns. By modifying how you think and behave, you can alter your emotional responses and develop practical coping skills for everyday challenges.

Compression fracture is a break in the vertebrae and can cause the vertebrae to collapse, making them shorter.

A **corpectomy** is a surgical procedure that involves removing part or all of a vertebra (bone in the spine) to relieve pressure on the spinal cord or nerve roots.

A **cotinine test** measures cotinine, a chemical created when the body breaks down nicotine. It is the preferred method for detecting tobacco and nicotine use (including cigarettes, vapes, and patches) because cotinine stays in the body much longer and is more stable than nicotine itself

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Degenerative disc disease refers to symptoms of back or neck pain caused by wear-and-tear on a spinal disc.
Disc herniation refers to a problem with one of the rubbery cushions (discs) that sit between the bones (vertebrae) that stack to make the spine.
Discectomy is the surgical removal of the damaged portion of a herniated disc in the spine.
Discitis is an uncommon primary infection of the vertebral disc, specifically the nucleus pulposus, often involving the cartilaginous end plate and vertebral body, and is most commonly caused by Staphylococcus aureus.
A **facetectomy** is a surgical procedure that involves removing part or all of the facet joint, also known as the zygapophyseal joint, in the spine.
Facet joint degeneration, also known as facet joint osteoarthritis, is a condition characterized by the breakdown of cartilage and formation of bone spurs in the facet joints of the spine, typically due to aging or repetitive stress.
Flatback deformity (also known as Flatback Syndrome) is a spinal condition in which the spine loses its natural, healthy curves, causing the lower back to become abnormally straight.
Foraminal stenosis is a condition where the openings between vertebrae in the spine narrow, causing the spinal nerves exiting through these openings to become compressed. This can lead to symptoms like pain, numbness, or weakness in the limbs or trunk. While many cases are asymptomatic, severe compression can result in nerve damage and loss of function.
Foraminotomy is a surgical procedure that relieves pressure on spinal nerve roots by enlarging the foramina, the openings in the spine through which the nerves exit.
Fusion refers to the process of joining two or more entities into one. In spinal surgery, fusion stabilizes the spine by joining adjacent vertebrae, often using bone grafts and hardware
Growing rods are surgical implants used to control spinal deformity and allow a child's spine to grow, while **"magnetic rods" (or MAGnetic Expansion Control, or MAGEC, rods)** are a specific type of growing rod that uses an external remote control to lengthen the implant non-invasively in a doctor's office, eliminating the need for repeat surgeries for lengthening.
Hoffman's sign or reflex is a test used to examine the reflexes fo the upper extremities to test the possible existence of sineal cord compression.
Hypertrophy is the excessive development of an organ or part, specifically an increase in bulk (as by thickening of muscle fibers) without multiplication of parts.
Hypochondriosis, now termed as somatic symptom disorder and illness anxiety disorder in DSM-5-TR, is characterized by severe and continuous anxiety about having an undiagnosed medical illness that causes distress or inability to function
Kyphosis is the exaggerated outward curvature of the thoracic region of the spine resulting in a rounded upper back.
Kyphotic deformity -An increased front-to-back curve of the spine is called kyphosis. Kyphosis is an excessive forward rounding of the upper back. In older people, kyphosis is often due to

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weakness in the spinal bones that causes them to compress or crack. Other types of kyphosis can appear in infants or teens.

Laminectomy is a type of surgery in which a surgeon removes part or all of the vertebral bone (lamina). This helps ease pressure on the spinal cord or the nerve roots that may be caused by injury, herniated disc, narrowing of the canal (spinal stenosis) or tumors.

Laminoforaminotomy is a surgical procedure, often performed to address nerve compression in the neck, that involves removing bone from both the lamina (the back part of the vertebra) and the foramen (the opening where spinal nerves exit) to relieve pressure on the nerve roots.

Laminoplasty is a surgical procedure performed on the cervical vertebrae (neck bones) to increase the space within the spinal canal by creating a hinge on the lamina (the back part of the spinal bone). Metal hardware bridges the gap in the opened section of the spine.

Laminotomy is a procedure performed by spine surgeons to decompress the spinal canal in either the cervical (neck) or lumbar (low back) spine.

Lateral Lumbar Interbody Fusion (LLIF) or Extreme Lateral Interbody Fusion (XLIF) is a type of spinal fusion surgery, which connect two or more vertebrae in the spine. This procedure is used to treat spine conditions when more conservative treatments have failed.

Lumbar decompression most commonly involves a laminectomy, but may also be used to describe laminotomy, facetectomy, foraminotomy. Laminectomy involves the removal of the posterior part of a vertebra, the lamina or reopening of the foramina with the goal of creating additional space for the spinal cord and nerves. Spinal stenosis, spondylolisthesis, herniated disc or bone spurs are the common indications.

Lumbar Discectomy / Microdiscectomy

Lumbar discectomy/microdiscectomy is a surgery to remove herniated disc material or a degenerative disc that is pressing on a nerve root or the spinal cord. Before the disc/disc material is removed , a small piece of the bone (lamina) from the affected vertebrae may be removed (laminotomy). This procedure may be done as a microdiscectomy, which uses a special microscope to view the discs and nerves.

Lumbar Fusion

Lumbar fusion or arthrodesis involves the permanent fusing of two or more adjacent vertebrae in the spine, immobilizing the vertebrae and restricting motion at a painful joint. Often, metal plates, screws and rods are used to connect the vertebrae together to stabilize the fusion until bone growth is complete. Common indications include spondylolisthesis, spine instability, deformity, trauma, injury or fracture. Fusions are commonly performed with decompression of vertebrae corpectomy (removal) procedures.

Lumbar spinal stenosis is the narrowing of the spinal canal in the lower back, which can compress the spinal cord and nerves, leading to pain, numbness, and weakness in the legs and buttocks.

Lumbar Spine is the lower back region of the spinal column or backbone. It consists of five bones (L1-L5).

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Metastases is the spread of a disease-producing agency (such as cancer cells) from the initial or primary site of disease to another part of the body.

Microdiscectomy is a minimally invasive surgical procedure that involves removing part of a herniated intervertebral disc to relieve pain and other symptoms.

Mildly symptomatic means experiencing a few or milder symptoms of an illness, rather than no symptoms at all (asymptomatic) or experiencing a severe illness with many symptoms. For example, with COVID-19, mildly symptomatic individuals might have a cold or mild fever, while more severe cases can involve difficulty breathing or high fever, according to the CDC.

A **5-point motor function scale,** often used in clinical settings, assesses muscle strength on a scale of 0 to 5, with 0 indicating no muscle movement and 5 representing normal strength. This scale, sometimes called the Medical Research Council (MRC) Scale or Manual Muscle Testing (MMT), is a widely used tool to evaluate motor function and identify neurological deficits

Myelopathy is a clinical syndrome resulting from dysfunction or injury of the spinal cord, causing neurologic deficits (gait disturbance, extremity weakness, loss of fine motor coordination, sensory deficits, hyperreflexia, spasticity, bowel or bladder dysfunction, pathologic reflexes [eg, Babinski sign, Hoffmann sign]) below the level of the lesion. It may occur due to compression, vascular compromise, inflammation, infection, trauma, degenerative disease, neoplasm, or other intrinsic spinal cord disorders.

Myofascial pain is defined as myalgia characterized by the presence of trigger points within muscles or fascia, which produce pain locally and in a referred pattern.

A **neural arch defect**, also known as a spinal dysraphism, is a birth defect where the neural tube (which develops into the brain and spinal cord) doesn't close completely during early fetal development. This can result in a range of conditions, from mild to severe, affecting the spine and potentially other parts of the brain and skull.

Neurinoma is a benign and slow-growing tumors that occur in the peripheral nervous system including the spinal nerves, which proceed from the spinal cord in the spine, and cranial nerves. Neurinomas originate from the Schwann cells (a type of glial cell of the peripheral nervous system that helps separate and insulate nerve cells) that surround the nerve cells.

Neurofibromatosis is a rare genetic disorder that causes benign tumors to grow on nerves and other parts of the body. There are three types of neurofibromatosis: neurofibromatosis 1 (NF1), neurofibromatosis 2 (NF2) and schwannomatosis.

Neurogenic = arising in the nervous system. **Claudication** = leg pain, heaviness and/or weakness with walking. Neurogenic claudication results from compression of the spinal nerves in the lumbar (lower) spine. It is sometimes known as pseudoclaudication.

Neurological deficits are abnormalities or impairments in the function of the brain, spinal cord, or nerves, resulting in a loss or reduction of specific neurological functions.

Neurological deficits are problems with the function of the nervous system, leading to abnormal sensations, movements, or thought processes. Examples include weakness, loss of sensation,

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difficulty speaking or understanding, impaired vision or balance, and cognitive impairments like memory loss.

Osteomalacia is defined as impaired mineralization of the bone matrix, leading to softening and weakening of bones in adults. It results from deficiencies in calcium, phosphate, or vitamin D metabolism. Symptoms include diffuse bone pain, muscle weakness, and pseudofractures.

Osteopenia is the reduction in bone volume to below normal levels especially due to inadequate replacement of bone lost to normal lysis.

Osteophyte is a bony lump (bone spur) that grows on the bones of the spine or around the joints.

Osteoporosis is a condition that is characterized by a decrease in bone mass, with decreased density and enlargement of bone spaces, producing porosity and fragility.

Osteotomy is the incision or transection of a bone.

Paget disease of bone is a chronic, focal skeletal disorder characterized by greatly increased and disordered bone remodeling, leading to enlarged, deformed, and weakened bones that are susceptible to fractures. Commonly affects the pelvis, spine, skull, femur, and tibia, and can be monostotic or polyostotic

Pain generator is a term commonly used in healthcare settings including education, research, and clinical practice to identify, as concisely as possible, the singular body part or "tissue" which is causing a pain.

Described pain generators in the lumbar spine may range from (I) an inflamed disc, (II) an inflamed nerve, (III) a hypervascular scar, (IV) a hypertrophied superior articular process (SAP) and ligamentum flavum, (V) a tender capsule, (VI) an impacting facet margin, (VII) a superior foraminal facet osteophyte

Pediatric scoliosis is a condition in children and adolescents where the spine curves sideways in a "C" or "S" shape, sometimes with rotation. The most common form is Adolescent Idiopathic Scoliosis (AIS), affecting ages 10 to 18, where the cause is unknown. Symptoms include uneven shoulders or hips, while treatment ranges from observation and bracing to surgery for severe curves. Pediatric scoliosis includes various types such as infantile (diagnosed before age 4), juvenile (diagnosed between ages 4 and 10), and AIS.

Percutaneous vertebral augmentation is a minimally invasive procedure for the treatment of compression fractures of the vertebral body.

Percutaneous vertebroplasty is a minimally invasive procedure where medical-grade bone cement is injected into a fractured vertebra to stabilize it and alleviate pain.Developed initially for treating aggressive vertebral hemangiomas,

Piriformis syndrome is a condition where the piriformis muscle, located in the buttock, spasms and irritates or compresses the sciatic nerve, causing pain, numbness, and tingling along the back of the thigh and leg.

A **positive Spurling test** indicates you have nerve root compression. This pain can affect your neck, shoulder, or arms. It sometimes feels similar to muscle weakness. If you think you have

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a pinched nerve or cervical radiculopathy, a positive Spurling test can help your doctor with a diagnosis

Posterior lumbar interbody fusion (PLIF) is a spinal surgery technique that can alleviate lower back pain and/or leg pain by removing a damaged spinal disc and fusing the pain-generating spinal segment

Posterior spinal fusion is a surgical procedure where two or more vertebrae are permanently joined together from the back of the spine to eliminate pain, instability, or deformity by stopping movement between the affected bones. This is achieved by carefully accessing the spine through an incision in the back, removing damaged disc material if needed, placing a bone graft to stimulate new bone growth, and using implants like rods and screws to hold the vertebrae in place while they heal and fuse into a single, solid bone

Posterolateral Fusion is a broader term. It refers to the technique of fusing the spine through a posterolateral approach, but it doesn't specify the region. It could be applied to lumbar, thoracic, or even cervical areas (though lumbar is most common).

A **progressive neurological deficit** is a gradual, worsening loss of nervous system function caused by ongoing damage to the brain, spinal cord, or nerves. Symptoms depend on the affected area and include worsening muscle weakness, loss of coordination, memory decline, or vision changes.

Progressive scoliosis refers to an unnatural, sideways curvature of the spine that naturally worsens over time, characterized by an increase of more than 5 degrees in the Cobb angle within a six-month period. It is not a distinct type of scoliosis, but rather an ongoing condition where the curvature and vertebral rotation steadily increase.

Pseudoarthrosis is a term used to describe what happens when a spinal fusion is unsuccessful. This condition may cause no symptoms or may cause pain in the neck, back, arms or legs.

Radiculopathy describes a range of symptoms, including pain, numbness and weakness, produced by the pinching of a nerve root in the spinal column.

Radiofrequency disc decompression (RFDD) is a minimally invasive procedure that uses radiofrequency energy to reduce intradiscal pressure and alleviate pain by targeting the nucleus pulposus of the intervertebral disc

Retropulsion is a disorder of locomotion commonly associated with Parkinson's disease that is marked by a tendency to walk backwards.

Rhizotomy is a surgical procedure to sever nerve roots in the spinal cord, which effectively relieves chronic back pain and muscle spasms.

Sacroiliac dysfunction refers to pain in the sacroiliac region due to abnormal movement or alignment of the sacroiliac joint, often without inflammation.

Sagittal imbalance is a spinal deformity where the natural front-to-back curves of the spine are flattened or over-pronounced, pitching your center of gravity forward. This causes the head to fall ahead of the pelvis, forcing the body to compensate by bending the hips and flexing the knees to stay upright.

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Segmental instability (most commonly referring to the spine) is a condition where adjacent vertebrae move abnormally or excessively relative to one another. It occurs when the spine's natural stabilizing systems—including the discs, ligaments, and deep core muscles—can no longer keep the spinal motion within normal, healthy constraints.

Significant functional gains refer to measurable improvements in physical, mental, or social functioning that enhance a patient's ability to perform daily activities and improve their quality of life. Significant functional gains in lumbar fusion include improvements in pain, disability, and physical function, as well as radiographic outcomes such as increased lumbar lordosis and disk height restoration.

Significant spinal cord or nerve compression refers to the substantial narrowing or obstruction of the spinal canal or neural foramina, leading to mechanical pressure on the spinal cord or nerve roots, which can result in neurological deficits and functional impairment.

Spinal instability is the failure of the spine to maintain its normal structure and alignment under normal movement. It occurs when bones, muscles, and ligaments cannot hold the vertebrae in place, leading to excessive, abnormal movement. This can trigger severe pain, nerve compression, or muscle spasms.

Spinal fusion is surgery to permanently connect two or more vertebrae in the spine, eliminating motion between them.

Spinal spondylosis is an umbrella term used to describe pain from degenerative conditions of the spine. Most often, the term spondylosis is used to describe osteoarthritis of the spine, but it is also commonly used to describe any manner of spinal degeneration.

Spinal surgery refers to surgical procedures performed on the spine to address a variety of conditions causing pain, nerve compression, or instability. These surgeries can involve removing bone spurs, herniated discs, or portions of the vertebra (lamina), as well as joining vertebrae together (spinal fusion) to stabilize the spine. The specific procedures depend on the nature and location of the spinal problem.

Spine pathology refers to any disorder or disease affecting the spine, including its vertebrae, intervertebral discs, spinal cord, nerve roots, and surrounding tissues.• Common spine pathologies include scoliosis, myelopathy, radiculopathy, spondylolisthesis, and intervertebral disc herniation

Spondylodiscitis is a primary infection (accompanied by destruction) of the intervertebral disc (discitis), with secondary infections of the vertebrae (spondylitis), starting at the endplates. It can lead to osteomyelitis of the spinal column.

Spondylosis is a term for non-specific progressive degenerative changes of the vertebral bodies, facet joints, and central canal, often leading to nerve root compression and irritation or spinal cord compression.

Spondylolisthesis is the forward displacement of a vertebra on the one below it and especially of the fifth lumbar vertebra on the sacrum producing pain by compression of nerve roots.

Stenosis is a narrowing or constriction of the diameter of a bodily passage or orifice.

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Subchondral defect is a focal area of damage to the bone that sits underneath cartilage in a joint.
Subluxation is a partial or incomplete dislocation.
Transforaminal lumbar interbody fusion (TLIF) is a contemporary approach to spinal fusion surgery. It is an operation performed on the lower back to remove an intervertebral disc and join two or more spinal bones (vertebrae) together using screws and a cage.
Vertebral body tethering (VBT) is a surgical procedure used to treat idiopathic scoliosis, a curvature of the spine that occurs without a known cause. It is typically performed in children and adolescents who are still growing.

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National and Local Coverage Determination (NCD and LCD)

NOTICE
To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to https://www.cms.gov/medicare-coverage-database/search.aspx.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.
CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.
In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

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Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

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