



Instrumented Spinal Surgery

State(s): <input checked="" type="checkbox"/> Idaho <input checked="" type="checkbox"/> Montana <input checked="" type="checkbox"/> Oregon <input checked="" type="checkbox"/> Washington <input type="checkbox"/> Other:	LOB(s): <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid
---	--

Commercial Policy

Clinical Guidelines are written when necessary to provide guidance to providers and members in order to outline and clarify coverage criteria in accordance with the terms of the Member's policy. This Clinical Guideline only applies to PacificSource Health Plans in Idaho, Montana, Oregon and Washington. Because of the changing nature of medicine, this list is subject to revision and update without notice. This document is designed for informational purposes only and is not an authorization or contract. Coverage determination are made on a case-by-case basis and subject to the terms, conditions, limitations, and exclusions of the Member's policy. Member policies differ in benefits and to the extent a conflict exists between the Clinical Guideline and the Member's policy, the Member's policy language shall control. Clinical Guidelines do not constitute medical advice nor guarantee coverage.

Background

Spondylosis is an umbrella term for different forms of age-related degeneration of the spine.

Lumbar spondylosis can refer to degenerative arthritis spinal stenosis, herniated discs, and facet joint arthritis. Spinal stenosis is a narrowing of the central spinal canal, the intervertebral foramina, and/or neural canals. A herniated (or slipped) disc occurs when a disc between the vertebrae is damaged and the inner gel-like substance (nucleus pulposus) either bulges or protrudes through the tougher outer layer of the disk (annulus). Most disc herniations occur in the lumbar spine and the bulge or protrusion can put pressure on the nerves that exit the spinal cord. This may cause pain and weakness in the leg, referred to as radicular pain or radiculopathy. Individuals with degenerated discs in the lower (lumbar) spine can experience disabling chronic low back pain.

Standard therapy for back pain involves a period of conservative medical management with gradually increasing mobilization and exercise. Surgical treatment is undertaken for those patients who have not improved with conservative medical management or who have a severe neurological impairment. Urgent surgery is required when neurologic deficits are rapidly progressive or if bladder dysfunction develops. Standard surgical approaches include decompressive laminectomy, with or without fusion.

This policy pertains to instrumented surgeries of the cervical, thoracic and lumbar spine.

Criteria

Thoracic or Lumbar Instrumented Fusions – Adults and Pediatric:

Prior authorization by PacificSource Health Services is required for instrumented spinal surgeries.

Tobacco/Nicotine Cessation for spinal fusion

- Does not apply to urgent/emergent cases.
 - Documentation of nicotine-free status by lab result (cotinine level) in patients who have been documented tobacco-users is required. Labs are to be performed after 6 weeks tobacco cessation and ample time should be afforded to submit this confirmation and complete the prior authorization process.

Thoracic or Lumbar Instrumented fusion may be indicated for 1 or more of the following:

- Spinal fracture with one or more of the following:
 - Spinal instability (eg, burst fracture); or
 - Neural compression
- Spinal stenosis with unacceptable postoperative instability as demonstrated by **ONE** of the following:
 - Segmental instability as manifested by gross movement on flexion-extension plain film radiographs; or
 - Spondylolisthesis or scoliosis per imaging; or
 - Decompression has created an iatrogenic instability as demonstrated by complete excision of one facet joint or greater than >50% per cent bilateral facet excision
- Lumbar spinal stenosis with **1 or more** of the following:
 - Rapidly progressive or very severe symptoms of neurogenic claudication and spinal stenosis imaging correlates to clinical findings
 - Leg or buttock neurogenic claudication symptoms and **ALL** of the following:
 - Symptoms are persistent and disabling
 - Imaging findings of lumbar spinal stenosis that correlate with clinical findings
 - Documented failure of 3 consecutive months of physician-directed conservative medical management during this current episode of pain with both of the following:
 - Prescription strength analgesics, steroids and/or NSAIDS
 - Physical therapy or chiropractic treatment
 - OR
 - Specific documentation if conservative care is contraindicated
- Lumbar Spondylolisthesis, as indicated by **1 or more** of the following:
 - Rapidly progressive or very severe neurologic deficits (eg, bowel or bladder dysfunction)
 - Symptoms requiring treatment as indicated by **ALL** of the following:
 - Persistent disabling symptoms including **1 or more** of the following:
 - Low back pain
 - Neurogenic claudication
 - Radicular pain **and**
 - Treatment is indicated by **ALL** of the following:
 - Listhesis demonstrated on imaging
 - Symptoms correlate with findings on MRI or other imaging
 - Documented failure of 3 consecutive months of physician-directed conservative medical management during this current episode of pain with both of the following:
 - Prescription strength analgesics, steroids and/or NSAIDS
 - Physical therapy or chiropractic treatment
 - OR
 - Specific documentation that conservative care is contraindicated
- Recurrent disc herniation at same level when **ALL** of the following are present:
 - The member has had two prior disc surgeries (discectomies or microdiscectomies) at the same level and experienced initial relief from symptoms after surgery; **AND**

- It has been at least 3 months since the most recent disc surgery; **AND**
- Back pain with documented failure of 3 consecutive months of physician-directed conservative medical management during this current episode of pain with **All** of the following:
 - Prescription strength analgesics, steroids and/or NSAIDS
 - Physical therapy or chiropractic treatment
 - Impairment or loss of function is documented
- Spinal repair with fusion in conjunction with surgery for one or more of the following:
 - Fracture/Dislocation;
 - Infection/Abscess; or
 - Tumor
- Revision fusion surgery for adjacent segment disease as indicated by **ALL** of the following:
 - Radiographic evidence of adjacent segment disease (i.e. neural compression) that correlates with symptoms;
 - Persistent disabling symptoms (low back pain, radiculopathy); and
 - Documented failure of three consecutive months of physician–directed conservative medical management during this current episode of pain with both of the following:
 - Prescription strength analgesics, steroids, and/or NSAIDS
 - Physical therapy or chiropractic treatment
 - Lumbar pseudarthrosis when one of the following are present:
 - Signs or symptoms of neurological compromise/myelopathy are present; or
 - Six months of time has passed since the previous lumbar fusion surgery and **ALL** of the following are met;
 - Documented failure of 3 consecutive months of conservative medical management during this current episode of pain with both of the following:
 - Prescription strength analgesics, steroids and/or NSAIDS
 - Physical therapy or chiropractic treatment
 - Lumbar imaging findings consistent with symptoms
 - Alternative etiologies of symptoms have been ruled out

Exclusion: Lumbar fusions for low back pain due to age-related degeneration of the spine WITHOUT progressive neurological deficit, stenosis or spondylolisthesis is considered not medically necessary.

Scoliosis Pediatric:

- Spinal fusion procedure at single or multiple levels is indicated for 1 or more of the following:
 - Early-onset scoliosis (ie, onset of scoliosis before 10 years of age) and 1 or more of the following:
 - Curve of 40 degrees or greater
 - Deterioration in level of function due to scoliosis (eg, pulmonary compromise)
 - Increase in curve despite nonoperative treatment (eg, orthosis)
 - Adolescent idiopathic scoliosis in patient 10 years or older and 1 or more of the following:
 - Curve greater than 45 degrees
 - Pain not controlled by nonoperative treatment (eg, orthosis)
 - Progression (eg, in thoracic lordosis) despite nonoperative treatment (eg orthosis)
 - Scoliosis secondary to spinal muscular atrophy and 1 or more of the following:
 - Curve greater than 50 degrees
 - Deterioration in level of function due to scoliosis
 - Severe spinal deformity from another disease (eg, rotatory deformity, dwarfism)
 - Scoliosis secondary to neurofibromatosis with curve greater than 40 degrees
 - Scoliosis secondary to spastic cerebral palsy and 1 or more of the following:
 - Documented curve progression greater than 10 degrees per year
 - Patient is 10 years or older with curve greater than 45 degrees.
 - Patient is at spinal maturity with curve greater than 40 degrees.

- Deterioration in level of function due to scoliosis (eg, inability to maintain sitting balance)
 - Scoliosis secondary to connective tissue disorder (eg, Marfan syndrome, Ehlers Danlos syndrome) and 1 or more of the following:
- Documented curve progression greater than 10 degrees per year
- Patient is at spinal maturity with curve greater than 40 degrees.
 - Scoliosis secondary to Duchenne-type muscular dystrophy and one or more of the following:
 - Curve 30 degrees or greater; or
 - Non-ambulatory status due to progression of disease

Scoliosis Adult:

Spinal fusion procedure at single or multiple levels is indicated for **1 or more** of the following:

- Adult scoliosis and **one** or more of the following:
 - Thoracic curve 50 degrees or greater and one or more of the following:
 - Chronic disabling thoracic or rib pain unrelieved by conservative measures;
 - Documented progression of curvature;
 - Demonstrated loss of pulmonary function; or
 - Cosmetically unacceptable deformity
 - Thoracic curve greater than 60 degrees; or
 - Lumbar curve and **one** or more of the following:
 - Moderate to severe symptoms (pain, neurogenic claudication, neurologic deficit) that persist despite nonoperative treatment
 - Curve greater than 30 degrees
 - Moderate to severe spinal stenosis
 - Sagittal imbalance
 - Progression (worsening) of curve

Anterior cervical fusion:

Tobacco/Nicotine Cessation for Spinal Fusion

- Does not apply to urgent/emergent cases.
- Documentation of nicotine-free status by lab result (cotinine level) in patients who have been documented tobacco-users is required. Labs are to be performed after 6 weeks tobacco cessation and ample time should be afforded to submit this confirmation and complete the prior authorization process.

Procedure is indicated for **1 or more** of the following:

- Cervical radiculopathy and **ALL** of the following:
 - Patient has unremitting radicular pain or progressive weakness secondary to nerve root compression.
 - Documented failure of physician-directed conservative medical management for this current episode of pain that includes both of the following;
 - Prescription strength analgesics, steroids, and/or NSAIDS for 6 weeks
 - Physical therapy or chiropractic treatment for 6 weeks
 - MRI or other neuroimaging finding correlates with clinical signs and symptoms and demonstrates spinal stenosis or nerve root compression. (eg, disk abnormality, facet joint hypertrophy)
- Spondylotic myelopathy treatment indicated by **ALL** of the following:

- Signs or symptoms of myelopathy are present as indicated by **1 or more** of the following:
 - Upper limb weakness in more than single nerve root distribution
 - Lower limb weakness in upper motor neuron distribution
 - Loss of dexterity (eg, clumsiness of hands)
 - Bowel or bladder incontinence
 - Frequent falls
 - Hyperreflexia
 - Hoffmann sign
 - Increased extremity muscle tone or spasticity
 - Gait abnormality
 - Positive Babinski sign
 - Alternative clinical signs or symptoms of myelopathy
- MRI or other neuroimaging finding correlates with clinical signs and symptoms and demonstrates cord compression due to (eg herniated disk, osteophyte)
- Ossification of posterior longitudinal ligament at 1 to 3 levels associated with myelopathy
- Degenerative cervical spondylosis with kyphosis causing cord compression
- Tumor of cervical spine causing pathologic fracture, cord compression, or instability
- Infection of cervical spine requiring decompression or debridement
- Cervical pseudarthrosis and **ALL** of the following:
 - Symptoms (eg, pain) unresponsive to nonoperative therapy
 - Alternative etiologies of symptoms ruled out
- Degenerative spinal segment adjacent to prior decompressive or fusion procedure with **1 or more** of the following:
 - Symptomatic myelopathy corresponding clinically to adjacent level
 - Symptomatic radiculopathy corresponding clinically to adjacent level and unresponsive to nonoperative therapy
- Posttraumatic cervical instability (eg, unstable anterior column fracture)
- Need for procedure as part of treating cervical spine injury (eg, trauma) as indicated by **ALL** of the following:
 - Acutely symptomatic cervical radiculopathy or myelopathy

MRI or other neuroimaging finding (eg, cord compression, root compression) demonstrates pathologic anatomy corresponding to symptoms.

Posterior cervical fusion:

Procedure is indicated for 1 or more of the following:

- Treatment of multilevel spondylotic myelopathy without kyphosis needed as indicated by **ALL** of the following:
 - Signs or symptoms of myelopathy are present as indicated by 1 or more of the following:
 - Upper limb weakness in more than single nerve root distribution
 - Lower limb weakness in upper motor neuron distribution
 - Loss of dexterity (eg, clumsiness of hands)
 - Bowel or bladder incontinence
 - Frequent falls
 - Hyperreflexia
 - Hoffmann sign^[A]
 - Increased extremity muscle tone or spasticity
 - Gait abnormality
 - Positive Babinski sign
 - Alternative clinical signs or symptoms of myelopathy
 - MRI or other neuroimaging finding correlates with clinical signs and symptoms and demonstrates cord compression (eg, herniated disk, osteophyte)

- Symptomatic unstable cervical spondylosis with radiographic findings that include **ONE** or more of the following:
 - Subluxation or translation of more than 3.5 mm on static lateral views or dynamic radiographs
 - Sagittal plane angulation of more than 11 degrees between adjacent segments
 - More than 4 mm of motion (subluxation) between tips of spinous processes on dynamic views
- Part of stabilization procedure with corpectomy, laminectomy, or other procedure at cervicothoracic junction (ie, C7 and T1)
- Part of stabilization procedure with laminectomy (eg, at C2)
- Subluxation and cord compression in rheumatoid arthritis
- Atlas and axis fractures
- Disruption of posterior ligamentous structures
- Facet fractures with dislocation
- Bilateral locked facets
- Ossification of posterior longitudinal ligament without kyphosis, with associated myelopathy
- Klippel-Feil syndrome
- Cervical instability in Down syndrome
- Cervical instability in skeletal dysplasia or connective tissue disorders
- Tumor or cyst of cervical spine causing pathologic fracture, cord compression, or instability
- Infection of cervical spine requiring decompression or debridement
- Cervical pseudarthrosis and ALL of the following:
 - Symptoms (eg, pain) unresponsive to nonoperative therapy
 - Alternative etiologies of symptoms ruled out
- Posttraumatic cervical instability
- Need for procedure as part of treating cervical spine injury (eg, trauma) as indicated by ALL of the following:
 - Acutely symptomatic cervical radiculopathy or myelopathy
 - MRI or other neuroimaging finding (eg, cord compression, root compression) demonstrates pathologic anatomy corresponding to symptoms.

Removal of Posterior Spinal Instrumentation:

Procedure is indicated for 1 or more of the following:

- Deformity corrected and solid fusion achieved
- Spinal infection
- Neurologic complication (eg, new-onset thoracic radiculopathy)
- Vascular complication
- Symptomatic rod, hook, or screw migration, dislodgment, or breakage
- New pain or protruding mass at operative site after significant spinal trauma (eg, motor vehicle accident)
- Severe late operative site back pain

Exclusions:

PacificSource Health Plans considers the following devices used in minimally invasive spine surgery to be experimental, investigational or unproven based on the lack of randomized, prospective, long-term studies demonstrating efficacy and safety:

- **Interspinous fixation devices** (i.e. CD Horizon Spire Spinal System) were developed to aid in the stabilization of the spine. They are being evaluated as alternatives to pedicle screw and rod constructs in combination with interbody fusion. Interspinous fixation devices are also being evaluated for stand-alone use in patients with spinal stenosis.

- **SynFix-LR (Synthes Spine) used in Laparoscopic Anterior Lumbar Interbody Fusion (LALIF) surgery.** The surgeon employs a laparoscope to remove the diseased disc and insert and implant (bone or devices) into the disc space. The spine is approached through the abdomen instead of the lower back.
- **Vertos mild® devices) used in Minimally Invasive Lumbar Decompression (MILD) surgery.** The surgeon uses the Vertos mild devices kit and guided imaging to resect the ligamentum flavum in order to increase the diameter of the spinal canal. Also known as image guided minimally invasive lumbar decompression (IG-MLD).
- **XYcor Spinal Implant** (Vertebration, Inc purchased by AlphatecSpine) for use with all current minimally invasive surgery access systems.

Coding Information

CPT	CPT Description
22532	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
22533	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22534	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic or lumbar, each additional vertebral segment (List separately in addition to code for primary procedure)
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
22552	Cervical below C2, each additional interspace (List separately in addition to code for separate procedure)
22554	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2
22556	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
22558	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
22585	each additional interspace (List separately in addition to code for primary procedure)
22586	Arthrodesis, Pre-Sacral Interbody Tech, With Posterior Instrumentation, With Image Guidance, L5-S1 Interspace
22590	Arthrodesis, posterior technique, craniocervical (occiput-C2)
22595	Arthrodesis, posterior technique, atlas-axis (C1-C2)
22600	Arthrodesis, posterior or posterolateral technique, single level; cervical below C2

22610	Arthrodesis, posterior or posterolateral technique, single level; thoracic (with or without lateral transverse technique)
22612	Arthrodesis, posterior or posterolateral technique, single level; lumbar (with or without lateral transverse technique)
22614	each additional vertebral segment (List separately in addition to code for primary procedure) [code not specific to cervical spine]
22630	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; lumbar
22632	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; each additional interspace (List separately in addition to code for primary procedure)
22633	Arthrodesis, Combined Post Or Postlatl Tech W Post Interbdy Tech,Incl Lamectmy &/Discectomy,Sgl Interspace & Segmt; Lumb
22634	Arthrodesis, Combind Post Or Postlatl Tech W Post Interbdy Tech,Incl Lamectmy &/Discectomy,Sgl Interspce & Segmt;Ea Addl
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,
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
22840	Posterior non-segmental instrumentation (e.g., Harrington rod technique, pedicle fixation across one interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation)
22841	Internal spinal fixation by wiring of spinous process
22842	Posterior segmental instrumentation (e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires); 3 to 6 vertebral segments (List separately in addition to code for primary procedure)
22843	7 to 12 vertebral segments (List separately in addition to code for primary procedure)
22844	Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 13 or more vertebral segments
22845	Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)
22846	4 to 7 vertebral segments (List separately in addition to code for primary procedure)

22847	Anterior instrumentation; 8 or more vertebral segments
22848	Pelvic fixation (attachment of caudal end of instrumentation to pelvic bony structures) other than sacrum (List separately in addition to code for primary procedure)
22849	Reinsertion of spinal fixation device
22850	Removal of posterior nonsegmental instrumentation (e.g., Harrington rod)
22852	Removal of posterior segmental instrumentation
22853	Insertion of interbody biomechanical device(s) (eg, synthetic cage, mesh) with integral anterior instrumentation for device anchoring (eg, screws, flanges), when performed, to intervertebral disc space in conjunction with interbody arthrodesis, each interspace
22854	Insertion of intervertebral biomechanical device(s) (eg, synthetic cage, mesh) with integral anterior instrumentation for device anchoring (eg, screws, flanges), when performed, to vertebral corpectomy(ies) (vertebral body resection, partial or complete) defect, in conjunction with interbody arthrodesis, each contiguous defect
22855	Removal of anterior instrumentation
22859	Insertion of intervertebral biomechanical device(s) (eg, synthetic cage, mesh, methylmethacrylate) to intervertebral disc space or vertebral body defect without interbody arthrodesis, each contiguous defect

Related Policies

Spinal surgery codes are not specific to instrumentation and techniques. The following policies may apply:

Dynamic Spinal Stabilization and Interspinous Process Decompression Devices

References

Aliabadi, H and Isaacs, R. Lumbar Spinal Stenosis. *Neurosurgery Quarterly*. 2009; 19(3): 200-206.

Chou, R et al. Surgery for Low Back Pain. *Spine*. 2009; 34(10): 1094-1109.

International Society for the Advancement of Spine Surgery: Policy Statement on Lumbar Spinal Fusion Surgery. 7/2011. Accessed 1/12/2018, 12/26/2018, 11/25/2019

https://www.isass.org/public_policy/2011-07-15_policy_statement_lumbar_surgery.html

[Kaiser MG Guideline update for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 1: introduction and methodology. J Neurosurg Spine. 2014 Jul;21\(1\): 2-6. Accessed 11/25/2019](https://www.ncbi.nlm.nih.gov/pubmed/24980578)

<https://www.ncbi.nlm.nih.gov/pubmed/24980578>

Joseph, SA et al. Lumbar Spine Fusion: Types, Principles, and Outcomes. Neurosurgery Quarterly 2008; 18(1): 34-44.

MCG Cervical Fusion, Anterior ORG: S-320 (ISC) 24th Edition.

MCG Cervical Fusion, Posterior ORG: S-330 (ISC) 24th Edition.

MCG Removal of Posterior Spinal Instrumentation ORG: S530 (ISC) 24th Edition.

MCG Lumbar Fusion ORG: S-820 (ISC) 24th Edition.

MCG Spine, Scoliosis, Posterior Instrumentation ORG: S-1056 (ISC) 24th Edition.

Appendix

Policy Number: [Policy Number]

Effective: 12/1/2019

Next review: 12/1/2020

Policy type: Commercial

Depts: Health Services

Applicable regulation(s): N/A

External entities affected: N/A