BlueCross BlueShield of Vermont

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Lumbar Spinal Fusion
Corporate Medical Policy

File Name: Lumbar Spinal Fusion
File Code: 7.01.VT141
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Next Review: 11/2023
Effective Date: 12/01/2022

Description/Summary

Lumbar spinal fusion (arthrodesis) is a surgical technique that involves fusion of two or more lumbar vertebrae using local bone, autologous bone taken from the iliac crest of the patient, allogeneic donor bone, or bone graft substitutes. There are numerous potential indications for lumbar spinal fusion. Spinal fusion can be performed as a single procedure or can be performed in conjunction with other spinal surgeries. For example, lumbar spinal fusion can be performed in combination with discectomy for either herniated discs or degenerative disc disease, or in combination with decompressive surgery of the spinal canal for spinal stenosis.

This policy addresses specifically the circumstances under which traditional arthrodesis (fusion) surgery of the lumbar spine is considered medically necessary in adults.

Policy

Coding Information

Click the links below for attachments, coding tables & instructions.
Attachment I

When a service may be considered medically necessary

Lumbar spinal fusion **may be considered medically necessary** for any one of the following conditions:

1. Spinal stenosis with **both** of the following:
    a. Any one of the following
        1) Associated spondylolisthesis demonstrated on plain x-rays; **OR**
        2) Spinal instability demonstrated on imaging studies; **OR**

3) Spinal instability is anticipated due to need for bilateral or wide decompression with facetectomy or resection of pars interarticularis; **AND**

b. **Either of the following:**

1) Neurogenic claudication or radicular pain that results in significant functional impairment in a patient who has failed at least 3 months of conservative care and has documentation of central/lateral recess/or foraminal stenosis on magnetic resonance imaging or other imaging; **OR**

2) Severe or rapidly progressive symptoms of motor loss, neurogenic claudication, or cauda equina syndrome.

2. Severe, progressive idiopathic scoliosis with **either** of the following:
   a. Cobb angle greater than 40°; **OR**
   b. Spinal cord compression with neurogenic claudication or radicular pain that results in significant functional impairment in a patient who has failed at least 3 months of conservative care.

3. Severe degenerative scoliosis (ie, lumbar or thoracolumbar) with a minimum Cobb angle of 30°, or significant sagittal imbalance (eg, sagittal vertical axis >5cm), and with **any** one of the following:
   a. Documented progression of deformity with persistent axial (non-radiating) pain and impairment or loss of function unresponsive to at least 1 year of conservative therapy; **OR**
   b. Persistent and significant neurogenic symptoms (claudication or radicular pain) with impairment or loss of function, unresponsive to at least 1 year of conservative nonsurgical care; **OR**
   c. Severe or rapidly progressive symptoms of motor loss, neurogenic claudication, or cauda equina syndrome.

4. Isthmic spondylolisthesis, when **all** of the following are present:
   a. Congenital (Wiltse type I) or acquired pars defect (Wiltse II), documented on x-ray; **AND**
   b. Persistent back pain (with or without neurogenic symptoms), with impairment or loss of function; **AND**
   c. Either unresponsive to at least 3 months of conservative nonsurgical care or with severe or rapidly progressive symptoms of motor loss, neurogenic claudication, or cauda equina syndrome.

5. Recurrent, same-level disc herniation, at least 3 months after previous disc surgery, when **all** of the following are present:
   a. Recurrent neurogenic symptoms (radicular pain or claudication) or evidence of nerve root irritation, as demonstrated by a positive nerve root tension sign or positive femoral tension sign or a corresponding neurologic deficit; **AND**
   b. Impairment or loss of function; **AND**
   c. Unresponsive to at least 3 months of conservative nonsurgical care or with

severe or rapidly progressive symptoms of motor loss, neurogenic claudication, or cauda equina syndrome; **AND**

d. Neural structure compression and instability documented by imaging at a level and side corresponding to the clinical symptoms.

6. Pseudarthrosis, documented radiologically, when **all** of the following are present:
   a. No less than 6 months after initial fusion; **AND**
   b. With persistent axial back pain, with or without neurogenic symptoms, **OR** with severe or rapidly progressive symptoms of motor loss, neurogenic claudication, or cauda equina syndrome; **AND**
   c. Impairment or loss of function, in a patient who had experienced significant interval relief of prior symptoms.

7. Instability due to fracture, dislocation, infection, abscess, or tumor when extensive surgery is required that could create an unstable spine

8. Iatrogenic or degenerative flatback syndrome with significant sagittal imbalance; when fusion performed with spinal osteotomy or interbody spacers.

9. Adjacent-level disease when **all** of the following are present:
   a. Persistent back pain (with or without neurogenic symptoms) with impairment or loss of function that is unresponsive to at least 3 months of conservative therapy; **AND**
   b. Eccentric disc space collapse, spondylolisthesis, acute single -level scoliosis, or lateral listhesis on imaging; **AND**
   c. Symptoms and functional measures correlate with imaging findings; **AND**
   d. The previous fusion resulted in significant relief for at least 6 months.

When a service is considered investigational

Lumbar spinal fusion is considered **investigational** if the sole indication is any one of the following conditions:

- Disc herniation
- Chronic nonspecific low back pain without radiculopathy
- Degenerative disc disease
- Initial discectomy/laminectomy for neural structure decompression
- Facet syndrome

When a service is considered not medically necessary

Lumbar spinal fusion is considered **not medically necessary** for any indication not addressed above.

Multiple-level lumbar spinal fusion is considered **not medically necessary** when the

criteria listed above are not met for all levels.

Policy Guidelines

Definition of Terms[3]

Cauda equina syndrome (CES): Cauda equina are the nerve roots, resembling a horse's tail, that continue from where the spinal cord ends and branch down to the lower part of the body. (Cauda equina is Latin for horse's tail.)

- Cauda Equina Syndrome (CES): Considered a surgical emergency with a rapid progression of neurologic symptoms that may include but are not limited to:
  - Severe sharp/stabbing debilitating low back pain that starts in the buttocks and travels down one or both legs, with severe muscle weakness
  - Inability to start/stop urine flow
  - Inability to start/stop bowel movement
  - Loss of sensation below the waist
  - Absence of lower extremity reflexes

CES is caused by compression of the cauda equina nerves of the lower spine by a herniated disk, infection, cancer, trauma, or spinal stenosis.

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

- Use of prescription strength analgesics for several weeks at a dose sufficient to induce a therapeutic response
- Analgesics should include anti-inflammatory medications with or without adjunctive medications such as nerve membrane stabilizers or muscle relaxants
- Participation in at least 6 weeks of physical therapy (including active exercise) or documentation of why the patient could not tolerate physical therapy
- Evaluation and appropriate management of associated cognitive, behavioral, or addiction issues
- Documentation of patient compliance with the preceding criteria

Isthmic spondylolisthesis: Spondylolisthesis caused by a fracture in the pars interarticularis. Note that many people have fractures of the pars and do not have symptoms.

Neurogenic claudication (also known as pseudo-claudication): A common indicator of lumbar spinal stenosis. The problem is caused by an inflamed nerve coming from the spinal column. Symptoms include the sensation of pain or weakness in the legs that is relieved with a change in position or leaning forward.

Persistent debilitating pain: Defined as:

- Significant level of pain on a daily basis defined on a visual analog scale (VAS) as greater than 4; AND
- Pain on a daily basis that has a documented impact on activities of daily living in spite of optimal conservative nonsurgical therapy as outlined above and

appropriate for the patient.

Pseudarthrosis: When bones fail to fuse with one another after spinal fusion surgery. Lack of union at the fused location.

Radicular pain: Pain that radiates along a dermatome of a nerve due to inflammation/irritation/compression of the nerve root that connects to the spinal column, also known as radiculitis. A common form is sciatica.

Restricted functional ability: Severely restricted functional ability generally includes loss of function and/or documentation of inability or significantly decreased ability to perform normal daily activities of work, school or at-home duties.

Spondylolisthesis: North American Spine Society defines lumbar degenerative spondylolisthesis as an acquired anterior displacement (slip) of 1 vertebra over the subjacent vertebra, associated with degenerative changes, but without an associated disruption or defect in the vertebral ring.

Reference Resources

1. BCBSA Policy 7.01.141 - Lumbar Spinal Fusion. Last reviewed: October 2022. Accessed: October 2022.
2. Lumbar spinal stenosis: Treatment and prognosis. UpToDate, Reviewed: September 2022. Accessed: October 2022.
3. Mobbs RJ, Phan K, Malham G, Seex K, Rao PJ. Lumbar interbody fusion: techniques, indications and comparison of interbody fusion options including PLIF, TLIF, MI-TLIF, OLIF/ATP, LLIF and ALIF. *J Spine Surg*. 2015;1(1):2-18. doi:10.3978/j.issn.2414-469X.2015.10.05

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer's benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member's contract/employer benefit plan language takes precedence.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup

all non-compliant payments.

Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval may be required and benefits are subject to all terms, limitations and conditions of the subscriber contract.

Incomplete authorization requests may result in a delay of decision pending submission of missing information. To be considered compete, see policy guidelines above.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member's health plan.

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member's benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member's benefit.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's employer benefit plan documents or contact the customer service department. Language in the employer benefit plan documents takes precedence over medical policy when there is a conflict.

Policy Implementation/Update information

12/2016	New policy- Adopted BCBSA policy MPRM 7.01.141, Updated Prior Approval list. Deleted CPT Code 22651 no longer in effect 01/01/2017.
11/2017	Removed codes from medical policy 0195T&0196T the codes remain investigational. Added codes 22853, 22854, 22859 as medically necessary per -New codes were effective 01/01/2018. Added 22867, 22868, 22869, & 22870 as investigational-New codes became effective 01/01/2018. Medical policy statements remain unchanged.
01/2019	Aligned with BCBSA MPRM 7.01.141, updated references, no changes to policy statements. Added code 22534 and revised descriptor for code 22856.

11/2020	Policy Reviewed. References updated to reflect BCBSA Policy 7.01.141 as evidence basis. No change to Policy Statement. Definition of Terms added to Policy Guidelines. Formatting updated.
11/2021	Policy Reviewed. No change to Policy Statement. Added code C1831 as investigational effective 10/01/2021 to align with Corporate Investigational Medical Policy.
12/2021	Adaptive Maintenance Summary of changes Effective 01/01/2022: Added codes 63052 & 63053 as requiring prior authorization. Revised descriptors for the following codes: 22612, 22614, 22630, 22632, 22633, 22634.
11/2022	Policy Reviewed. No change to Policy Statement. References updated

Eligible providers

Qualified healthcare professionals practicing within the scope of their license(s).

Approved by BCBSVT Medical Directors Date Approved

Tom Weigel, MD, MBA
Vice President and Chief Medical Officer

Attachment I

Code Type	Number	Brief Description	Policy Instructions
The following codes will be considered medically necessary when applicable criteria have been met.			
CPT®	20930	Allograft, morselized, or placement of osteopromotive material, for spine surgery only (List separately in addition to code for primary procedure	No Prior Approval Required
CPT®	20931	Allograft, structural, for spine surgery only (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	20936	Autograft for spine surgery only (includes harvesting the graft); local (eg, ribs, spinous process, or laminar fragments) obtained from same incision (List separately in addition to code for primary procedure)	No Prior Approval Required

CPT®	20937	Autograft for spine surgery only (includes harvesting the graft); morselized (through separate skin or fascial incision) (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	20938	Autograft for spine surgery only (includes harvesting the graft); structural, bicortical or tricortical (through separate skin or fascial incision) (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	22533	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar	Prior Approval Required
CPT®	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)	No Prior Approval Required
CPT®	22558	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar	Prior Approval Required
CPT®	22585	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); each additional interspace (List separately in addition to code for primary procedure)	Prior Approval Required

CPT®	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	Prior Approval Required
CPT®	22612	Arthrodesis, posterior or posterolateral technique, single interspace; lumbar (with lateral transverse technique, when performed)	Prior Approval Required
CPT®	22614	Arthrodesis, posterior or posterolateral technique, single interspace; each additional interspace (List separately in addition to code for primary procedure)	Prior Approval Required
CPT®	22630	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; lumbar	Prior Approval Required
CPT®	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)	Prior Approval Required
CPT®	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; lumbar	Prior Approval Required

CPT®	22634	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; each additional interspace and segment (List separately in addition to code for primary procedure)	Prior Approval Required
CPT®	22800	Arthrodesis, posterior spinal deformity, with or without cast; up to 6 vertebral segments	No Prior Approval Required
CPT®	22802	Arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments	No Prior Approval Required
CPT®	22804	Arthrodesis, posterior, for spinal deformity, with or without cast; 13 or more vertebral segments	No Prior Approval Required
CPT®	22808	Arthrodesis, anterior, for spinal deformity, with or without cast; 2 to 3 vertebral segments	No Prior Approval Required
CPT®	22810	Arthrodesis, anterior, for spinal deformity, with or without cast; 4 to 7 vertebral segments	No Prior Approval Required
CPT®	22812	Arthrodesis, anterior, for spinal deformity, with or without cast; 8 or more vertebral segments	No Prior Approval Required
CPT®	22818	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); single or 2 segments	No Prior Approval Required
CPT®	22819	Kyphectomy, circumferential exposure of spine and resection of vertebral segment(s) (including body and posterior elements); 3 or more segments	No Prior Approval Required

CPT®	22840	Posterior non-segmental instrumentation (eg, Harrington rod technique, pedicle fixation across 1 interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation) (List separately in addition to code for primary procedure)	Prior Approval Required
CPT®	22841	Internal spinal fixation by wiring of spinous processes (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	22842	Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 3 to 6 vertebral segments (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	22843	Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 7 to 12 vertebral segments (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	22844	Posterior segmental instrumentation (eg, pedicle fixation, dual rods with multiple hooks and sublaminar wires); 13 or more vertebral segments (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	22845	Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	22846	Anterior instrumentation; 4 to 7 vertebral segments (List separately in addition to code for primary procedure)	No Prior Approval Required

CPT®	22847	Anterior instrumentation; 8 or more vertebral segments (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	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 (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	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 (List separately in addition to code for primary procedure)	No Prior Approval Required
CPT®	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 (List separately in addition to code for primary procedure)	No Prior Approval Required

CPT®	63052	Laminectomy, facetectomy, or foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s] [eg, spinal or lateral recess stenosis]), during posterior interbody arthrodesis, lumbar; single vertebral segment (List separately in addition to code for primary procedure)	Prior Approval Required
CPT®	63053	Laminectomy, facetectomy, or foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s] [eg, spinal or lateral recess stenosis]), during posterior interbody arthrodesis, lumbar; each additional segment (List separately in addition to code for primary procedure)	Prior Approval Required
The Following Codes Will be Denied as Investigational			
CPT®	22867	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance when performed, with open decompression, lumbar; single level	Investigational
CPT®	22868	Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance when performed, with open decompression, lumbar; second level (List separately in addition to code for primary procedure)	Investigational
CPT®	22869	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion, including image guidance when performed, lumbar; single level	Investigational

CPT®	22870	Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion, including image guidance when performed, lumbar; second level (List separately in addition to code for primary procedure)	Investigational
HCPCS	C1831	Personalized, anterior and lateral interbody cage (implantable)	Investigational