

MEDICAL POLICY



MEDICAL POLICY DETAILS	
Medical Policy Title	LUMBAR FUSION FOR ADULTS
Policy Number	7.01.90
Category	Technology Assessment
Effective Date	02/19/15
Revised Date	01/21/16, 01/19/17, 01/18/18, 06/21/18, 12/20/18
Product Disclaimer	<ul style="list-style-type: none"> • If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply. • If a commercial product (including an Essential Plan product) or a Medicaid product covers a specific service, medical policy criteria apply to the benefit. • If a Medicare product covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.

POLICY STATEMENT

- I. Based upon our criteria and assessment of peer-reviewed literature, lumbar spinal fusion *with decompression* has been medically proven to be effective and is considered **medically necessary** when ALL of the following criteria have been met:
- The patient is a candidate for lumbar decompression
 - Performed for actual or anticipated iatrogenic instability from decompression and when EITHER of the following criteria are met:
 - Actual or anticipated instability identified intra-operatively created by disruption of the posterior elements due to facet joint excision that exceeds 50% bilaterally or 75% or more of a single facet during spinal decompression; or
 - Confirmatory imaging including ANY of the following (not required when instability is created and/or identified intra-operatively):
 - Recent (within 6 months) imaging documenting postoperative instability created by the disruption of the posterior elements due to facet joint excision that exceeds 50% bilaterally or 75% or more of a single facet; or
 - Removal of the pars interarticularis is performed that requires fusion to stabilize; or
 - Pars fracture; or
 - Previous spinal decompression that resulted in iatrogenic spondylolisthesis.
 - Absence of untreated, underlying psychological conditions/issues (e.g., depression, chronic pain syndrome, secondary gain, drug or alcohol abuse, etc.) as a contributor to chronic pain.
- II. Lumbar Fusion (arthrodesis) *without decompression* is considered **medically necessary** when ALL of the following criteria are met:
- Significant level of pain on a Visual Analog Scale (VAS) greater than or equal to 7 on a daily basis;
 - Clinically significant functional impairment (e.g., inability to perform household chores, prolonged standing or essential job functions);
 - Less than clinically meaningful improvement for EITHER of the following for at least 3 consecutive months unless contraindicated:
 - Prescription strength analgesics, steroids, and/or NSAIDs;
 - Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician.
 - Absence of untreated, underlying psychological conditions/issues (e.g., depression, chronic pain syndrome, secondary gain, drug or alcohol abuse, etc.) as a contributor to chronic pain.
 - When performed for ANY of the following conditions:
 - Spondylolisthesis with spondylolysis confirmed by imaging with ANY of the following:
 - Multilevel spondylolysis on recent (within 6 months) radiographic studies; or

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- b. Symptomatic Grade 1 or 2 spondylolisthesis (anterolisthesis) with recent (within 6 months) radiographic documentation supporting progression of anterolisthesis; or
- c. Symptomatic Grade 3 or higher spondylolisthesis (anterolisthesis) demonstrated on recent (within 6 months) plain X-rays with 50% or more anterior slippage and radiographic documentation supporting progression of anterolisthesis.
- d. Progressive spinal pain with confirmatory imaging of progression of spondylolisthesis
2. Degenerative spondylolisthesis without spondylolysis when confirmatory imaging results show EITHER the following are present:
 - a. Dynamic segmental instability documented by flexion-extension radiographics OR comparison of a supine and upright image, with a difference in translational alignment between vertebrae greater than 3mm between views; or
 - b. Grade II or higher spondylolisthesis (i.e., instability) defined as at least 3 mm of anterolisthesis of the upper vertebra in relation to the lower vertebra, either isthmic (i.e., secondary to a posterior arch stress fracture) or degenerative type.
3. Discogenic lower back/degenerative disc disease when ALL of the following are met:
 - a. Presence of chronic, unremitting, discogenic axial lower back pain and associated disability secondary to single-level degenerative lumbar disc disease (DDD) for at least one year;
 - b. Age 18 to 60 years old;
 - c. Structured physician-supervised, multi-modal, nonoperative management of medical care with licensed healthcare professionals which includes regularly scheduled appointments, follow-up evaluation, and less than clinically meaningful improvement with at least TWO of the following for at least 12 consecutive months unless contraindicated:
 - i. Prescription strength analgesics, steroids, and/or NSAIDs;
 - ii. Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician;
 - iii. Epidural steroid injection(s)/selective nerve root blocks; or
 - iv. Facet joint injection(s)/medial branch block(s)/radiofrequency ablation(s).
 - d. Moderate to severe single-level disc degeneration at L4-L5 or L5-S1 has been confirmed on recent (within 6 months) plain radiographs and advanced diagnostic imaging studies (i.e., CT, MRI);
4. Initial disc herniation when BOTH of the following criteria are met:
 - a. Patient is a candidate for initial primary lumbar discectomy; and
 - b. Any of the following are present:
 - i. Primary extraforaminal disc herniation at L5-S1, in which a far lateral approach is not feasible because of the presence of the iliac wings;
 - ii. Primary foraminal disc herniation for which facet resection is necessary to retrieve the disc, which will result in iatrogenic instability; or
 - iii. Primary disc herniation in the lumbar spine that is at the level of the spinal cord (i.e., low lying conus medullaris).
5. Recurrent, disc herniation when ALL of the following are met:
 - a. The patient is a candidate for repeat lumbar discectomy; and
 - b. Confirmatory radiographic imaging including neural structure compression demonstrated by most recent (within 6 months) imaging, and
 - c. Radiographic evidence of anterolisthesis resulting in either of the following:
 - i. Segmental instability with a minimum of 3mm or more of anterior translation displacement of the vertebra on the adjacent vertebra below; or
 - ii. Grade II or higher spondylolisthesis (i.e., instability).
6. Isthmic spondylolisthesis when congenital or acquired pars defect is documented by recent (within 6 months) imaging studies.

III. *Repeat* lumbar fusion (arthrodesis) at the same level is considered **medically necessary** when EITHER of the following criteria are met:

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- A. Recent (within 6 months) radiographic (plain film) evidence of implant failure or malposition or implant failure (e.g., pedicle screw breakage, screw loosening, cure/correction decompensation); or
 - B. When ALL of the following criteria are met:
 - 1. The patient meets criteria for lumbar fusion;
 - 2. Greater than 6 months since last fusion (arthrodesis) surgery;
 - 3. Recent (within 6 months) confirmatory imaging including EITHER of the following:
 - a. MRI with or without and with contrast/CT myelogram; or
 - b. CT or plain x-rays documenting pseudoarthrosis.
 - 4. Significant initial relief of prior symptoms following prior surgery.
- IV. Lumbar fusion (arthrodesis) for adjacent segment degeneration is considered **medically necessary** when ALL of the following are met:
- A. The patient meets criteria for lumbar fusion; and
 - B. Radiographic evidence of anterolisthesis resulting in BOTH of the following:
 - 1. Segmental instability with 3mm or more of anterior translation displacement of the vertebra on the adjacent vertebra below, and
 - 2. Grade II or higher spondylolisthesis (i.e., instability).
 - C. Neural structure compression demonstrated by recent (within 6 months) radiographic imaging; and
 - D. Significant initial relief of symptoms following prior spinal fusion(s); and
 - E. 6 or more months since the previous fusion.
- V. Lumbar discectomy and fusion following failed lumbar disc arthroplasty implant is considered **medically necessary** when EITHER of the following are met:
- A. Recent (within 6 months) radiographic (plain film) evidence of implant malposition or implant failure (e.g., subsidence, loosening, infection, dislocation/subluxation, vertebral body fracture, dislodgement); OR
 - B. All of the following:
 - 1. Patient meets criteria for lumbar fusion;
 - 2. Recent (within 6 months) MRI without contrast or without and with contrast/CT myelogram confirms evidence of neural structure compression (e.g., either retained disc material or a recurrent disc herniation); and
 - 3. Significant initial relief of prior symptoms following prior surgery, and
 - 4. Greater than 6 months since disc arthroplasty surgery
- VI. Based upon our criteria and assessment of peer-reviewed literature, lumbar spinal fusion has not been medically proven effective and is therefore considered **not medically necessary** for ANY of the following indications:
- A. Chronic non-specific low back pain without radiculopathy;
 - B. Disc herniation in the absence of ANY of the following:
 - 1. Primary extraforaminal disc herniation at L5-S1, in which a far lateral approach is not feasible because of the presence of the iliac wings.
 - 2. Primary foraminal disc herniation for which facet resection is necessary to retrieve the disc, which will result in iatrogenic instability.
 - 3. Primary disc herniation in the lumbar spine that is at the level of the spinal cord (i.e. low lying conus medullaris).
 - C. Multi-level degenerative disc disease without instability;
 - D. Neurocompressive pathology;
 - E. Facet joint disorders without instability;
 - F. Initial discectomy/laminectomy without instability;
 - G. Spinal stenosis without instability; or
 - H. An adjunct to primary decompression of central, foraminal, and/or lateral recess stenosis in the absence of instability.
- VII. Based upon our criteria and assessment of peer-reviewed literature, the following devices/procedures are considered **investigational** for the following (not an all-inclusive list):
- A. Pre-sacral interbody fusion including AxiaLIF;

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- B. Minimally invasive surgical approaches using only indirect visualization (e.g., endoscopic fusion, percutaneous fusion (video-imaging));
- C. Anterior interbody fusion or implantation of intervertebral body fusion devices using laparoscopic approach;
- D. Device/implant not FDA approved;
- E. Devices for disc annular repair;
- F. Dynamic (intervertebral) stabilization (e.g. Dynesys, Stabilimax NZ);
- G. Interlaminar lumbar instrumented fusion (e.g., ILIF);
- H. Interspinous and interlaminar distraction devices;
- I. Interspinous fixation/posterior non-pedicle supplemental fixation devices for spinal fusion (e.g., Affix, Aspen Spinous Process Fixation System, Coflex-F);
- J. Least invasive lumbar decompression interbody fusion (e.g., LINDIF);
- K. Minimally invasive lumbar decompression (MILD);
- L. Minimally invasive thoracic discectomy for the treatment of axial spinal pain;
- M. Percutaneous endoscopic discectomy;
- N. Isolated facet fusion with or without instrumentation, including allograft bone graft substitutes used exclusively as stand-alone stabilization devices (e.g., TruFuse (any level), NuFix (any level)); and
- O. Total facet arthroplasty

Refer to Corporate Medical Policy #7.01.83 Minimally Invasive/Minimal Access Techniques for Lumbar Interbody Fusion.

POLICY GUIDELINES

- I. Documentation of nicotine-free status with EITHER of the following:
 - A. Patient is a non- tobacco user, or
 - B. Patient has refrained from tobacco use for at least 6 weeks prior to the planned spinal fusion surgery as evidenced by lab results (cotinine level of less than or equal to $\leq 10\text{ng/mL}$)
- II. Minimum documentation requirements needed to complete a spinal surgery prior authorization request:
 - A. CPT codes, ICD-10 codes and disc levels indicated;
 - B. Detailed documentation of type of provider-directed conservative treatment (e.g., interventional pain management procedures/injections, medication, physical therapy, chiropractic, or other provider-directed active exercise program) that includes response to conservative treatment, most recent imaging reports performed, read and interpreted by an independent radiologist whose report shall supersede any discrepancies (when present) in interpretation;
 - C. Standing flexion-extension films for spinal fusion surgery requests based upon indications of instability.
- III. **URGENT/EMERGENT CONDITIONS**: All patients being evaluated for spine surgery should be screened for indications of a medical condition that requires urgent/emergent treatment. The presence of such indications/conditions warrants definitive surgical treatment in lieu of conservative pain management treatment. If any of the following are part of the clinical presentation with a request for precertification of the CPT code, the request will go to medical review. Severe neck pain associated with any of the following will still need confirmatory imaging, such as a CT or MRI scan:
 - A. Traumatic Spinal Fractures or Dislocations with or without neural compression when instability is present or decompression of the spinal canal is anticipated to result in instability;
 - B. Infection (e.g. discitis, epidural abscess, osteomyelitis) when instability is present or debridement and/or decompression is anticipated to result in instability;
 - C. Primary or metastatic neoplastic disease causing pathologic fracture, cord compression when instability is present or resection and/or decompression is anticipated to result in instability;
 - D. Congenital, neuromuscular, or infantile/juvenile/adolescent idiopathic scoliosis;
 - E. Documentation of severe debilitating pain and/or dysfunction to the point of being incapacitated.

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IV. The Federal Employee Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus these procedures, devices or laboratory tests may be assessed only on the basis of their medical necessity.

DESCRIPTION

Low back pain affects approximately 90% of the U.S. population at some point in their lives and may be caused by a wide variety of conditions. Conservative management typically consists of rest, exercise, analgesics, local injections, lumbar bracing, physical therapy and chiropractic care. Generally, conservative therapy is not recommended in the presence of progressive neurological deficits, when spinal fracture or dislocation is unstable or for progressive spinal deformity. When conservative management is attempted and fails, surgery may be required for conditions with underlying pathology as determined by radiological findings.

Spinal fusion/arthrodesis, also known as *spondylodesis* or *spondylosyndesis*, is a well-established surgical technique for infectious conditions of the spine (e.g., spinal tuberculosis). It has also been considered the standard treatment for progressive spinal deformities (e.g., scoliosis) and traumatic injuries. Additionally, lumbar fusion is performed for clearly defined spinal instability. Fusing of the spine is used primarily to eliminate the pain caused by abnormal motion of the vertebrae by immobilizing the faulty vertebrae themselves. Supplementary bone tissue, either from the patient (autograft) or a donor (allograft), is used in conjunction with the body's natural bone growth (osteoblastic) processes to fuse the vertebrae. There are two main types of lumbar spinal fusion, which may be used in conjunction with each other. Posterolateral fusion places the bone graft between the transverse processes in the back of the spine. These vertebrae are then fixed in place with screws and/or wire through the pedicles of each vertebra attaching to a metal rod on each side of the vertebrae. Interbody fusion places the bone graft between the vertebrae in the area usually occupied by the intervertebral disc. The fusion then occurs between the endplates of the vertebrae. Using both types of fusion is known as 360-degree fusion. Three types of interbody fusion include anterior lumbar interbody fusion (ALIF); posterior lumbar interbody fusion (PLIF); and transforaminal lumbar interbody fusion (TLIF). Interbody cages, instrumentation such as plates, pedicle screws, or rods, and osteoinductive agents such as recombinant human bone morphogenetic protein (rhBMP) may be used to stabilize the spine during the months following surgery to improve fusion success rates. External factors such as smoking, osteoporosis, certain medications, and heavy activity can prolong or even prevent the fusion process.

RATIONALE

Lumbar spinal fusion is a surgical procedure and does not require approval by the U.S. Food and Drug Administration (FDA). A variety of instrumentation used in lumbar spinal fusion is cleared for marketing by FDA.

Smoking

Tobacco use is considered a risk factor for poor healing and is associated with nonunion. It is well-established that smoking is a preventable cause of morbidity and mortality. The American Academy of Orthopedic Surgeons (AAOS) strongly recommends avoiding use and exposure to tobacco products due to the severe and negative impact on the musculoskeletal system including the bones, muscle, tendons and ligaments (AAOS, 2010). Lumbar fusion is in most situations an elective surgery; it is strongly recommended that individuals be in the best physical condition prior to undergoing surgery. A policy statement published by the International Society of Advancement for Spine Surgery (ISASS, 2011) indicates that while undergoing conservative care prior to surgery, smokers should be encouraged to stop smoking as smoking aggravates low back pain, is a risk factor for multiple systemic health problems, and increases the risk from poor outcomes of spine surgery (ISASS, 2011). The North American Spine Society (NASS) lists the absence of smoking for at least 3 months prior to the surgery date in their coverage policy recommendations for lumbar fusion for the diagnosis discogenic low back pain. Anderson et al. (2010) reported that smoking negatively affects fusion mass and furthermore; smoking results in lower bone mineral density, particularly in the spine. Deyo et al. (2010) evaluated trends

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and complications in adults who underwent lumbar fusion for spinal stenosis and noted that not only did major complications increase with increased comorbidity, but that there was a substantially greater risk among those with chronic lung disease compared to those without. Particularly with spinal fusion, tobacco use has been associated with increased risk of pseudoarthrosis. In addition, tobacco use has been associated with poorer clinical outcomes such as less pain relief, poorer functional rehabilitation and less overall patient satisfaction (Vogt, et al., 2002).

Cotinine, the primary metabolite of nicotine, is currently regarded as the best biomarker of tobacco smoke exposure. Measuring cotinine is preferable to measuring nicotine because cotinine persists longer in the body with a plasma half-life of about 16 hours. Non-smokers exposed to typical levels of second hand smoke have serum cotinine levels less than 1 ng/ml, with heavy exposure to second hand smoke producing levels in the 1-10 ng/ml range. Active smokers almost always have levels higher than 10 ng/ml and sometimes higher than 500 ng/ml. Therefore, non-smoking is defined as a serum cotinine level of less than or equal to 10 ng/ml (National Biomonitoring Program, Centers for Disease Control and Prevention Dec 2013).

Disc herniation/degenerative disc disease (DDD)

Current evidence, which includes a large randomized controlled trial (RCT) by Weinstein and colleagues (SPORT), supports that surgical treatment with discectomy improves outcomes for lumbar disc herniation with radiculopathy. However, there is no evidence to support that the addition of spinal fusion to discectomy improves outcomes in patients with the sole indication of lumbar disc herniation without instability (e.g., Takeshima, et al. 2000, Otani, et al. 2014).

WC Jacobs and colleagues (2011) conducted a systematic review to assess the effects of surgery versus conservative therapy (including epidural injections) for patients with sciatica due to lumbar disc herniation. Randomized controlled trials of adults with lumbar radicular pain, which evaluated at least one clinically relevant outcome measure (pain, functional status, perceived recovery, lost days of work) were included. In total, five studies were identified, two of which with a low risk of bias. One study compared early surgery with prolonged conservative care followed by surgery if needed; three studies compared surgery with usual conservative care, and one study compared surgery with epidural injections. Data were not pooled because of clinical heterogeneity and poor reporting of data. One large low-risk-of-bias trial demonstrated that early surgery in patients with 6-12 weeks of radicular pain leads to faster pain relief when compared with prolonged conservative treatment, but there were no differences after 1 and 2 years. Another large low-risk-of-bias trial between surgery and usual conservative care found no statistically significant differences on any of the primary outcome measures after 1 and 2 years. Future studies should evaluate who benefits more from surgery and who from conservative care.

Evidence supporting lumbar fusion, as a method of treatment for DDD is limited, and few well-designed clinical studies have supported arthrodesis as superior to nonoperative therapy for improving clinical outcomes (e.g., Resnick, et al., 2005). In 2012, the Agency for Healthcare Research and Quality posted for public comment a draft of an updated technology assessment on spinal fusion for treating painful lumbar degenerated discs or joints. The draft, which reviewed 4 studies, concluded that the evidence was minimally sufficient to conclude that fusion was associated with improved back pain and function at 2 years compared with physical therapy, but that the clinical significance of these findings was uncertain. This technology assessment is being finalized for publication. When comparing intense rehabilitation and cognitive therapy to lumbar fusion, the reported clinical outcomes demonstrate lumbar fusion is no more effective than intense rehabilitation combined with cognitive therapy (e.g., Brox, et al., 2010; Mirza, et al., 2007; Brox, et al., 2006; Fairbank, et al., 2005). The North American Spine Society (NASS) states that lumbar fusion is not indicated for disc herniation as an adjunct to primary excision of a central or posterolateral disc herniation at any level in the absence of instability or spondylolisthesis.

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Chronic low back pain (CLBP)

A systematic review from 2013 by Saltychev, et al. compared lumbar fusion versus conservative treatment in patients with CLBP. The Meta-analysis of 4 trials with a total of 666 patients reported a reduction in the ODI that was -2.91 in favor of lumbar fusion. However, this did not attain statistical significance or the minimal clinically significant difference in ODI of 10 points. The review concluded that there is strong evidence that lumbar fusion does not lead to a clinically significant reduction in perceived disability compared with conservative treatment in patients with CLBP and degenerative spinal disease. The review also concluded that it is unlikely that further research on the subject would alter this conclusion.

T Ibrahim and colleagues performed a meta-analysis of randomized controlled trials to investigate the effectiveness of surgical fusion for the treatment of chronic low back pain compared to non-surgical intervention. The meta-analysis comparison was based on the mean difference in Oswestry Disability Index (ODI) change from baseline to the specified follow-up of patients undergoing surgical versus non-surgical treatment. Of the 58 articles identified, three studies were eligible for primary analysis and one study for sensitivity analysis, with a total of 634 patients. The authors found that surgical fusion for chronic low back pain favored a marginal improvement in the ODI compared to non-surgical intervention. This difference in ODI was not statistically significant and was of minimal clinical importance. Surgery was found to be associated with a significant risk of complications. Therefore, the cumulative evidence at the present time does not support routine surgical fusion for the treatment of chronic low back pain.

Spinal Stenosis with Spondylolisthesis

Weinstein and colleagues reported findings from the multicenter controlled trial (Spine Patient Outcomes Research Trial [SPORT]) that compared surgical and nonsurgical treatment for lumbar degenerative spondylolisthesis in 2 articles dated 2007 and 2009. All patients had neurogenic claudication or radicular leg pain associated with neurologic signs, spinal stenosis shown on cross-sectional imaging, and degenerative spondylolisthesis shown on lateral radiographs with symptoms persisting for at least 12 weeks. There were 304 patients in a randomized cohort and 303 patients in an observational cohort. About 40% of the randomized cohort crossed over in each direction by 2 years of follow-up. At the 4-year follow-up timepoint, 54% of patients randomized to nonoperative care had undergone surgery. Five percent of the surgically-treated patients received decompression only and 95% underwent decompression with fusion. Analysis by treatment-received was used due to the high percentage of crossovers. This analysis, controlled for baseline factors, showed a significant advantage for surgery at up to 4 years of follow-up for all primary and secondary outcome measures.

Adolescent Idiopathic Scoliosis

Treatment of scoliosis currently depends on 3 factors: the cause of the condition (idiopathic, congenital, secondary), severity of the condition (degrees of curve), and the remaining growth expected for the patient at the time of presentation. Children who have vertebral curves measuring between 25° and 40° with at least 2 years of growth remaining are considered to be at high risk of curve progression. Because severe deformity may lead to compromised respiratory function and is associated with back pain in adulthood, in the U.S., surgical intervention with spinal fusion is typically recommended for curves that progress to 45° or more. (Richards, et al, 2005). Long-term follow-up of a large case series by Danielson and Nachemson supports guidelines from the Scoliosis Research Society that fusion can reduce curve progression in patients with curves greater than 40°. This is likely to result in reduced morbidity for treated patients.

Adult Symptomatic Lumbar Scoliosis

No randomized controlled trials (RCTs) were identified on the treatment of adult symptomatic lumbar scoliosis with fusion. A cohort study in 2009 by Bridwell, et al. reported a prospective multicenter cohort study that compared operative versus nonoperative treatment of adult symptomatic lumbar scoliosis (defined as a minimum Cobb angle of 30°) in 160 consecutively enrolled patients. Operative versus nonoperative treatment was decided by the patient and medical team. Nonoperative treatment included observation (21%), medications (26%), medications plus physical therapy and/or injections (40%), and other treatment without medications (13%). For analysis, the patients were matched using propensity scores that included baseline Cobb angle, Oswestry Disability Index (ODI), Scoliosis Research Society subscore, and a numerical rating scale for back and leg pain. The percentage of patients who returned for follow-up at 2 years was higher for operative than nonoperative patients (95% vs 45%), though the baseline measures for patients who

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were lost to follow-up was similar to those who were followed for 2 years. At the 2-year follow-up, nonoperative treatment had not improved quality of life or any other outcome measures, while the operative group showed significant improvement in all outcomes.

Isthmic Spondylolisthesis

A RCT compared fusion versus an exercise program for patients with symptomatic isthmic spondylolisthesis. Results of this trial support that the use of fusion for this condition improves functional status compared with conservative treatment. Moller and Hedlund reported a study of 111 patients with adult isthmic spondylolisthesis who were randomly assigned to posterolateral fusion (with or without instrumentation, n=77) or to an exercise program (n=34). Inclusion criteria for the study were lumbar isthmic spondylolisthesis of any grade, at least 1 year of low back pain or sciatica, and a severely restricted functional ability. The mean age of patients was 39 years, with a mean age at onset of symptoms of 26 years. At 1- and 2-year follow-up, functional outcome (assessed by the Disability Rating Index) had improved in the surgery group but not in the exercise group. Pain scores improved in both groups, but were significantly better in the surgically treated group compared with the exercise group.

CODES

- Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.
- **CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.**
- Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

CPT Codes

Code	Description
20930-20938	Allografts and autografts used in spine surgery (code range)
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)
22558	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar
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)
22612	Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed)
22614	Arthrodesis, posterior or posterolateral technique, single level; each additional vertebral segment (List separately in addition to code for primary procedure)
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)

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Code	Description
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
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 and segment; each additional interspace and segment (List separately in addition to code for primary procedure)
22800-22819	Arthrodesis for spinal deformity (code range)
22840-22847, 22851	Spinal instrumentation (code range)
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)
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)
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)
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
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
0220T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; thoracic
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
0222T	Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; each additional vertebral segment (List separately in addition to code for primary procedure)

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Code	Description
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ICD10 Codes

Code	Description
M40.35-M40.37	Flatback syndrome thoracolumbar, lumbar or lumbosacral region (code range)
M41.05-M41.9	Scoliosis (code range)
M43.00-M43.07	Spondylolysis, thoracolumbar, lumbar or lumbosacral region (code range)
M43.10-M43.17	Spondylolisthesis, thoracolumbar, lumbar or lumbosacral region (code range)
M43.27	Fusion of spine, lumbosacral region
M48.05-M48.07	Spinal stenosis, thoracolumbar, lumbar or lumbosacral region (code range)
M51.06	Intervertebral disc disorders with myelopathy, lumbar region
M53.2X5- M53.2X7	Spinal instabilities, thoracolumbar, lumbar or lumbosacral region (code range)
M53.86-.87	Other specified dorsopathies, lumbar or lumbosacral region (code range)
M96.0	Intraoperative and postprocedural complications and disorders of musculoskeletal system; Pseudarthrosis after fusion or arthrodesis
M96.1	Postlaminectomy syndrome, not elsewhere classified

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*Key Article

KEY WORDS

Degenerative disc disease, Disc herniation, Lumbar arthrodesis, Lumbar fusion, Spinal stenosis, spondylodesis, spondylosyndesis, Spondylolisthesis

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

Based upon our review, lumbar fusion is not addressed in National or regional CMS coverage determinations or policies.