



CLINICAL GUIDELINES

CMM-609: Lumbar Fusion (Arthrodesis) Guidelines

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eviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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Clinical guidelines for medical necessity review of Comprehensive Musculoskeletal Management Services.

CMM-609: Lumbar Fusion (Arthrodesis)

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CMM-609.1: General Guidelines

- The determination of medical necessity for the performance of lumbar fusion (arthrodesis) is always made on a case-by-case basis.
- Adult spinal deformity surgery does not require documentation of spinal instability and/or spondylolisthesis
- For prior authorization requirements, see **CMM-600.1: Prior Authorization Requirements**.
- The presence of adolescent idiopathic scoliosis with over 50 degree curves or congenital, neuromuscular, or infantile/juvenile scoliosis warrants definitive surgical treatment. Confirmatory imaging studies (advanced or plain x-rays) are required. The following criteria are NOT required for the above confirmed conditions:
 - ◆ Provider-directed non-surgical management
 - ◆ Proof of smoking cessation
 - ◆ Absence of unmanaged significant mental and/or behavioral health disorders
- The presence of urgent/emergent indications/conditions warrants definitive surgical treatment. Confirmatory advanced imaging studies are required. The following criteria are **NOT** required for confirmed urgent/emergent conditions:
 - ◆ Provider-directed non-surgical management
 - ◆ Proof of smoking cessation
 - ◆ Absence of unmanaged significant mental and/or behavioral health disorders
- Urgent/emergent conditions for lumbar fusion (arthrodesis) include **ANY** of the following:
 - ◆ Infection (e.g. discitis, epidural abscess, osteomyelitis) when instability is present or debridement and/or decompression is anticipated to result in iatrogenic instability
 - ◆ Primary or metastatic neoplastic disease causing pathologic fracture, cord compression, when instability is present or resection and/or decompression is anticipated to result in iatrogenic instability
 - ◆ 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 iatrogenic instability
 - ◆ Documentation of severe debilitating pain and/or dysfunction to the point of being incapacitated

CMM-609.2: Lumbar Fusion (Arthrodesis)

Lumbar Fusion (Arthrodesis) with Decompression

Lumbar fusion (arthrodesis) with decompression is considered **medically necessary** when **ALL** of the following are met:

- The patient is a candidate for lumbar decompression. Refer to **CMM-608: Lumbar Decompression**.
- Performed for actual or anticipated iatrogenic instability from decompression and when **EITHER** of the following are met:
 - ◆ **Actual instability with confirmatory imaging** including **ANY** of the following (not required when instability is created and/or identified intra-operatively):
 - Degenerative spondylolisthesis without spondylolysis when confirmatory imaging results show **EITHER** of the following:
 - Dynamic segmental instability documented by flexion-extension plain X-rays **OR** comparison of a supine and upright image, with a difference in translational alignment between vertebrae greater than 3 mm between views
 - Meyerding Grade II or higher spondylolisthesis
 - Spondylolisthesis with spondylolysis when confirmatory imaging results show **ANY** of the following:
 - Multi-level spondylolysis on recent (within 6 months) plain X-rays
 - Symptomatic Meyerding Grade 1 or 2 spondylolisthesis (anterolisthesis) with recent (within 6 months) plain X-rays supporting progression of anterolisthesis
 - Symptomatic Meyerding Grade 3 or higher spondylolisthesis (anterolisthesis) demonstrated on recent (within 6 months) plain x-rays with 50% or more anterior slippage **OR** plain X-rays supporting progression of anterolisthesis
 - Progressive spinal pain without confirmatory imaging of progression of spondylolisthesis
 - 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
 - Pars fracture
 - Previous lumbar spinal decompression that resulted in iatrogenic spondylolisthesis
 - ◆ **Anticipated iatrogenic instability** with **ANY** of the following:
 - 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
 - Removal of the pars interarticularis is performed that requires fusion to stabilize
 - Created by decompression for Meyerding Grade I or higher spondylolisthesis with foraminal stenosis

- Less than clinically meaningful improvement with at least **TWO** of the following for at least 6 weeks (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician
 - ◆ Epidural steroid injection (ESI)/selective nerve root block(s) (SNRB)
- Absence of untreated, underlying mental and/or behavioral health conditions/issues (e.g. depression, chronic pain syndrome, secondary gain, opioid and alcohol use disorders, etc.) as a contributor to chronic pain
- Documentation of nicotine-free status with **EITHER** of the following:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL

Lumbar Fusion (Arthrodesis) without Decompression

Lumbar fusion (arthrodesis) without decompression is considered medically necessary when **ALL** of the following criteria are met:

- Significant level of pain on a daily basis defined as **EITHER** of the following:
 - ◆ Visual Analog Scale (VAS) /Numeric Rating Scale (NRS) ≥ 7 on a daily basis
 - ◆ Severe, disabling, crippling, or incapacitating pain
- Clinically significant functional impairment (e.g. inability to perform household chores, prolonged standing or essential job functions)
- Less than clinically meaningful improvement with **EITHER** of the following for at least 3 consecutive months unless contraindicated, except for discogenic lower back/degenerative disc disease (see specific criteria below):
 - ◆ 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 mental and/or behavioral health conditions/issues (e.g. depression, chronic pain syndrome, secondary gain, opioid and alcohol use disorders, etc.) as a contributor to chronic pain
- Documentation of nicotine-free status with **EITHER** of the following:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL
- Performed for **ANY** of the following:
 - ◆ Degenerative spondylolisthesis without spondylolysis when confirmatory imaging results show **EITHER** of the following:

- Dynamic segmental instability documented by flexion-extension plain X-rays **OR** comparison of a supine and upright image, with a difference in translational alignment between vertebrae greater than 3 mm between views
- Meyerding Grade II or higher spondylolisthesis
- ◆ Spondylolisthesis with spondylolysis when confirmatory imaging results show **ANY** of the following:
 - Multi-level spondylolysis on recent (within 6 months) plain X-rays
 - Symptomatic Meyerding Grade 1 or 2 spondylolisthesis (anterolisthesis) with recent (within 6 months) plain X-rays supporting progression of anterolisthesis
 - Symptomatic Meyerding Grade 3 or higher spondylolisthesis (anterolisthesis) demonstrated on recent (within 6 months) plain x-rays with 50% or more anterior slippage **OR** plain X-rays supporting progression of anterolisthesis
 - Progressive spinal pain without confirmatory imaging of progression of spondylolisthesis
- ◆ Discogenic lower back/degenerative disc disease when **ALL** of the following are met:
 - 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
 - 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:
 - Prescription strength analgesics, steroids, and/or NSAIDs
 - Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician
 - Epidural steroid injection(s)/selective nerve root block(s)
 - Facet joint injection(s)/medial branch block(s)/radiofrequency ablation(s)
 - Moderate to severe single-level disc degeneration has been confirmed on recent (within 6 months) plain X-rays and advanced diagnostic imaging studies (i.e., CT, MRI)

- ◆ Initial disc herniation when **BOTH** of the following are met:
 - This patient is a candidate for initial primary lumbar discectomy. Refer to **CMM 606.1: General Guidelines** for information related to excision of extradural lesion other than neoplasm, **CMM-606.2: Initial Primary Lumbar Microdiscectomy (Laminotomy, Laminectomy, or Hemilaminectomy)**, and **CMM 606.3: Repeat Lumbar Microdiscectomy (Laminotomy or Laminectomy) at the Same Level**.
 - **ANY** of the following is present:
 - Primary extraforaminal disc herniation at L5-S1, in which a far lateral approach is not feasible because of the presence of the iliac wings
 - Primary foraminal disc herniation for which facet resection is necessary to retrieve the disc, which will result in iatrogenic instability
 - Primary disc herniation in the lumbar spine that is at the level of the spinal cord (i.e., low lying conus medullaris)
- ◆ Recurrent disc herniation when **BOTH** of the following are met:
 - The patient is a candidate for repeat lumbar discectomy. Refer to **CMM 606.3: Repeat Lumbar Microdiscectomy (Laminotomy or Laminectomy) at the Same Level**.
 - Confirmatory plain X-rays including neural structure compression demonstrated by the most recent (within 6 months) imaging **AND** plain X-ray evidence of anterolisthesis resulting in **EITHER** of the following:
 - Segmental instability with 3 mm or more of anterior translation displacement of the vertebra on the adjacent vertebra below
 - Meyerding Grade II or higher spondylolisthesis (i.e., instability)
- ◆ Second or greater recurrent disc herniation when the patient is a candidate for repeat lumbar discectomy. Refer to **CMM 606.3: Repeat Lumbar Microdiscectomy (Laminotomy or Laminectomy) at the Same Level**
- ◆ Isthmic spondylolisthesis when congenital or acquired pars defect is documented by recent (within 6 months) imaging studies

CMM-609.3: Adjacent Segment Disease

Lumbar fusion (arthrodesis) for adjacent segment disease is considered **medically necessary** when **ALL** of the following are met:

- The patient meets criteria for lumbar fusion. Refer to: **CMM-609.2: Lumbar Fusion (Arthrodesis)**.
- The prior lumbar fusion (arthrodesis) procedure at an adjacent level was performed at least 6 months prior.
- Evidence of anterolisthesis on plain X-rays resulting in **EITHER** of the following:
 - ◆ Dynamic segmental instability with 3 mm or more of anterior translation displacement of the vertebra on the adjacent vertebra below
 - ◆ Meyerding Grade II or higher spondylolisthesis (i.e., instability)
- Neural structure compression demonstrated by recent (within 6 months) plain X-rays
- Significant initial relief of symptoms following prior spinal fusion(s)

CMM-609.4: Failed Lumbar Disc Arthroplasty Implant

Lumbar discectomy and fusion following failed lumbar disc arthroplasty implant is considered **medically necessary** when **EITHER** of the following are met:

- Recent (within 6 months) post-operative plain X-rays show evidence of implant malposition or implant failure (e.g. subsidence, loosening, infection, dislocation/subluxation, vertebral body fracture, dislodgement)
- **ALL** of the following are met:
 - ◆ The patient meets criteria for lumbar fusion. Refer to: **CMM-609.2: Lumbar Fusion (Arthrodesis)**.
 - ◆ Recent (within 6 months) post-operative MRI /CT confirms evidence of neural structure compression (e.g. either retained disc material or a recurrent disc herniation)
 - ◆ Greater than 6 months since disc arthroplasty surgery

CMM-609.5: Repeat Lumbar Fusion (Arthrodesis) at the Same Level

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

- Recent (within 6 months) post-operative plain X-rays show evidence of implant malposition or implant failure (e.g. migration, pedicle screw breakage, pedicle screw loosening, dislodged hooks, rod breakage, rod bending, rod loosening, loss of curve correction, decompensation, etc.)
- **ALL** of the following are met:
 - ◆ The patient meets criteria for lumbar fusion. Refer to: **CMM-609.2: Lumbar Fusion (Arthrodesis)**.
 - ◆ Recent (within 6 months) post-operative confirmatory imaging documenting pseudarthrosis on **ANY** of the following:
 - MRI
 - CT
 - Plain x-rays
 - ◆ Greater than 6 months since the last fusion (arthrodesis) surgery

CMM-609.6: Non-Indications

Not Medically Necessary

- Lumbar fusion (arthrodesis) is considered **not medically necessary** when the sole indication is **ANY** of the following:
 - ◆ Disc herniation in the absence of **ANY** of the following:
 - Primary extraforaminal disc herniation at L5-S1, in which a far lateral approach is not feasible because of the presence of the iliac wings
 - Primary foraminal disc herniation for which facet resection is necessary to retrieve the disc, which will result in iatrogenic instability
 - Primary disc herniation in the lumbar spine that is at the level of the spinal cord (i.e., low lying conus medullaris)
 - ◆ Multi-level degenerative disc disease without instability
 - ◆ Neurocompressive pathology
 - ◆ Facet joint disorders without instability
 - ◆ Initial discectomy/laminectomy without instability
 - ◆ An adjunct to primary decompression of central and/or lateral recess stenosis in the absence of instability, spondylolisthesis, or an actual or anticipated bony resection that will result in iatrogenic instability
 - ◆ Spondylolysis without spondylolisthesis

Experimental, Investigational, and/or Unproven (EIU)

- **ALL** of the following devices/procedures are considered **experimental, investigational, or unproven (EIU)** (not an all-inclusive list):
 - ◆ Pre-sacral interbody fusion including AxiaLIF
 - ◆ Minimally invasive surgical approaches using only indirect visualization (e.g. endoscopic fusion, percutaneous fusion (video imaging))
 - ◆ Anterior interbody fusion or implantation of intervertebral body fusion devices using laparoscopic approach
 - ◆ Device/implant not FDA approved
 - ◆ Devices for disc annular repair
 - ◆ Dynamic (intervertebral) stabilization (e.g. Dynesys, Stabilimax NZ)
 - ◆ Interlaminar lumbar instrumented fusion (e.g. ILIF)
 - ◆ Interspinous and interlaminar distraction devices
 - ◆ Interspinous fixation/posterior non-pedicle supplemental fixation devices for spinal fusion (e.g. Affix, Aspen Spinous Process Fixation System, Coflex-F)
 - ◆ Personalized anterior and lateral body interbody cage (implantable) e.g. Aprevo
 - ◆ Least invasive lumbar decompression interbody fusion (e.g. LINDIF)
 - ◆ 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))
 - ◆ Total facet arthroplasty

CMM-609.7: Procedure (CPT®) Codes

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only. Any given code's inclusion on this list does not necessarily indicate prior authorization is required.

CPT®	Code Description/Definition
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)
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 interspace; lumbar (with lateral transverse technique, when performed)
+22614	Arthrodesis, posterior or posterolateral technique, single interspace; 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)
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
+22634	Arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression); each additional interspace (List separately in addition to code for primary procedure)
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

CMM-609: Lumbar Fusion (Arthrodesis)

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CPT®	Code Description/Definition
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 1 interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation) (List separately in addition to code for primary procedure)
+22841	Internal spinal fixation by wiring of spinous processes (List separately in addition to code for primary procedure)
+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	Posterior segmental instrumentation (e.g. pedicle fixation, dual rods with multiple hooks and sublaminar wires); 7 to 12 vertebral segments (List separately in addition to code for primary procedure)
+22844	Posterior segmental instrumentation (e.g. pedicle fixation, dual rods with multiple hooks and sublaminar wires); 13 or more vertebral segments (List separately in addition to code for primary procedure)
+22845	Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)
+22846	Anterior instrumentation; 4 to 7 vertebral segments (List separately in addition to code for primary procedure)
+22847	Anterior instrumentation; 8 or more vertebral segments (List separately in addition to code for primary procedure)
+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
+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)
0195T	Arthrodesis, pre-sacral interbody technique, disc space preparation, discectomy, without instrumentation, with image guidance, includes bone graft when performed; L5-S1 interspace

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only. Any given code's inclusion on this list does not necessarily indicate prior authorization is required.

CPT®	Code Description/Definition
+0196T	Arthrodesis, pre-sacral interbody technique, disc space preparation, discectomy, without instrumentation, with image guidance, includes bone graft when performed; L4-L5 interspace (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)

This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules.

CMM-609.8: References

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