



CLINICAL GUIDELINES

CMM-614: Thoracic/Thoracolumbar Fusion (Arthrodesis) Guidelines

Version 1.0.2023

Effective May 31, 2023



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-614: Thoracic / Thoracolumbar Fusion (Arthrodesis)

CMM-614.1: General Guidelines

CMM-614.2: Thoracic or Thoracolumbar Fusion (Arthrodesis) with/without Decompression for Adult Spinal deformity

CMM-614.3: Thoracic or Thoracolumbar Fusion (Arthrodesis) with Decompression without Adult Spinal Deformity

CMM-614.4: Adjacent Segment Disease/Proximal Junctional Failure

CMM-614.5: Repeat Thoracic Fusion (Arthrodesis) at the Same Level

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CMM-614.1: General Guidelines

- The determination of medical necessity for the performance of thoracic or thoracic fusion (arthrodesis) is always made on a case-by-case basis.
- 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 behavioral health disorders
- Urgent/emergent conditions for thoracic or thoracolumbar 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-614.2: Thoracic or Thoracolumbar Fusion (Arthrodesis) with/without Decompression for Adult Spinal deformity

Thoracic or thoracolumbar fusion (arthrodesis) with/without decompression for adult spinal deformity is considered **medically necessary** when **ALL** of the following are met:

- Performed for **ANY** of the following conditions:
 - ◆ **Degenerative Spinal Deformity:** Indications for thoracic fusion (arthrodesis) in adult degenerative spinal deformity include **ANY** of the following:
 - Coronal plane deformity which includes **ANY** of the following:
 - Cobb angle of greater than 30 degrees
 - Asymmetric disk collapse causing symptomatic foraminal narrowing
 - Coronal imbalance causing head and trunk shift off the midline
 - Sagittal imbalance which includes **ANY** of the following:
 - Sagittal Vertebral axis measurement greater than 8 cm
 - Pelvic incidence-Lumbar lordosis > 15 degrees
 - ◆ **Adult Residual Idiopathic Scoliotic Deformity:** Indications for thoracic or thoracolumbar fusion (arthrodesis) for adult residual idiopathic scoliotic deformity include **ANY** of the following:
 - Cobb angle of greater than 50 degrees
 - Asymmetric disk collapse causing symptomatic foraminal narrowing
 - Coronal imbalance causing head and trunk shift off the midline
 - ◆ **Adult Residual Schuermann's Kyphosis:** Indications for thoracic or thoracolumbar fusion (arthrodesis) for adult residual Schuermann's kyphosis include **ANY** of the following:
 - Sagittal Vertebral Axis measurement greater than 8 cm
 - Pelvic incidence-Lumbar lordosis > 15 degrees
 - Sagittal Cobb angle of greater than 75 degrees
- **ALL** of the following associated criteria are required:
 - ◆ 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
 - ◆ Conservative treatment:
 - **If decompression at any thoracolumbar level is being performed:** 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(s)/selective nerve root block(s)

- If performed without decompression: Less than clinically meaningful improvement with **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

CMM-614.3: Thoracic or Thoracolumbar Fusion (Arthrodesis) with Decompression without Adult Spinal Deformity

Thoracic or thoracolumbar fusion (arthrodesis) with decompression without adult spinal deformity is considered **medically necessary** when **ALL** of the following are met:

- The patient is a candidate for thoracic decompression. Refer to **CMM-613:Thoracic Decompression-Discectomy** (with the exception of conservative care requirements, which are defined below).
- Performed for actual or anticipated iatrogenic instability from decompression when **ANY** 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):
 - Spondylolisthesis 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
 - 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 thoracic or thoracolumbar spinal decompression that resulted in iatrogenic spondylolisthesis
 - ◆ **Anticipated iatrogenic instability** with **ANY** of the following:
 - 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
 - Excessive disc removal that could result in anterior instability
 - 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(s)/selective nerve root block(s)

- 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

CMM-614.4: Adjacent Segment Disease/Proximal Junctional Failure

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

- The patient meets criteria for thoracic or thoracolumbar fusion (arthrodesis). Refer to: **CMM-614.2: Thoracic or Thoracolumbar Fusion (Arthrodesis) with/without Decompression for Adult Spinal deformity** or **CMM-614.3: Thoracic or Thoracolumbar Fusion (Arthrodesis) with Decompression without Adult Spinal Deformity**
- The prior thoracic fusion (arthrodesis) procedure was performed at an adjacent level
- Evidence of anterolisthesis or kyphosis on plain X-rays resulting in **ANY** 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)
 - ◆ Any spinal level showing 15 degrees change of the sagittal Cobb angle (Proximal Junctional angle) with progressive pain or neurologic symptoms caused by either bony or posterior ligamentous complex failure

CMM-614.5: Repeat Thoracic Fusion (Arthrodesis) at the Same Level

Repeat thoracic 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 thoracic fusion (arthrodesis). Refer to **CMM-614.2: Thoracic or Thoracolumbar Fusion (Arthrodesis) with/without Decompression for Adult Spinal deformity** or **CMM-614.3: Thoracic or Thoracolumbar Fusion (Arthrodesis) with Decompression without Adult Spinal Deformity**
 - ◆ 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-614.6: Non-Indications

Not medically Necessary

- Thoracic fusion (arthrodesis) is considered **not medically necessary** when the sole indication is **ANY** of the following:
 - ◆ Multi-level degenerative disc disease without instability or significant adult deformity
 - ◆ 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, adult deformity or an actual or anticipated bony resection that will result in iatrogenic instability

Experimental, Investigational, and/or Unproven (EIU)

- Thoracic fusion (arthrodesis) is considered **experimental, investigational, an/or unproven (EIU)** for **ALL** of the following devices/procedures (not an all-inclusive list):
 - ◆ Minimally invasive surgical approaches using only indirect visualization (e.g. percutaneous fusion)
 - ◆ Device/implant not FDA approved (in thoracic spine)
 - ◆ Devices for disc annular repair
 - ◆ Endoscopic thoracic decompression with interbody fusion
 - ◆ 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-614.7: 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
22222	Osteotomy of spine, including discectomy, anterior approach, single vertebral segment; thoracic
22532	Arthrodesis, lateral extracavitary technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
+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)
22556	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); thoracic
+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)
22610	Arthrodesis, posterior or posterolateral technique, single level; thoracic (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)
22800	Arthrodesis, posterior, for spinal deformity, with or without cast; up to 6 vertebral segments
22802	Arthrodesis, posterior, for spinal deformity, with or without cast; 7 to 12 vertebral segments
22804	Arthrodesis, posterior, for spinal deformity, with or without cast; 13 or more vertebral segments
22808	Arthrodesis, anterior, for spinal deformity, with or without cast; 2 to 3 vertebral segments
22810	Arthrodesis, anterior, for spinal deformity, with or without cast; 4 to 7 vertebral segments
22812	Arthrodesis, anterior, for spinal deformity, with or without cast; 8 or more vertebral segments
63003	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; thoracic

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CPT®	Code Description/Definition
63016	Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; thoracic
63046	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; thoracic
+63048	Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; each additional segment, cervical, thoracic, or lumbar (List separately in addition to code for primary procedure)
63055	Transpedicular approach with decompression of spinal cord, equina and /or nerve root(s) (e.g., herniated intervertebral disc), single segment; thoracic
+ 63057	Transpedicular approach with decompression of spinal cord, equina and/or nerve(s) (e.g., herniated intervertebral disc), single segment; each additional segment, thoracic or lumbar (List separately in addition to code for primary procedure)
63077	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; thoracic, single interspace
+63078	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; thoracic, each additional interspace (List separately in addition to code for primary procedure)
63266	Laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; thoracic

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-614.8: References

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