Cohere Medical Policy - Tarsometatarsal Arthrodesis

Clinical Policy for Medical Necessity Review

Version: 3
Cohere Health UMC Approval Date: July 31, 2025
Last Annual Review: July 31, 2025
Revision: Not Applicable
Next Annual Review: July 31, 2025

Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice.

Other Notices:

Policy Information:

Specialty Area: Musculoskeletal Care
Policy Name: Cohere Medical Policy - Tarsometatarsal Arthrodesis
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

Table of Contents

Medical Necessity Criteria

Service: Tarsometatarsal Arthrodesis

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a clinical evaluation by the treating provider, which may include referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched procedure, laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
    - The medical necessity of each individual request
    - Why prior imaging or procedures were inconclusive, or why additional/follow-up studies are needed
    - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.

Description

Tarsometatarsal (TMT) arthrodesis is a minimally invasive procedure that involves the surgical fusion of the tarsal bones (calcaneus, talus, cuboid, navicular, and cuneiform bones) with the metatarsal bones (the long bones that connect the toes to the rest of the foot). The goal of the procedure is to eliminate movement and pain in the affected joints by fusing the bones together. This is typically achieved through the use of internal fixation devices such as screws, plates, or rods.[1,2]

Medical Necessity Criteria

Indications

Tarsometatarsal arthrodesis is considered appropriate if **ALL** of the following are **TRUE**:

- **ANY** of the following:
  - Current nicotine user with no product use for 6 weeks; and **ANY** of the following[3–5]:
    - Negative urine (cotinine) lab test within 30 days[6]; **OR**
    - Surgery is urgently required due to documented reason; **OR**
  - No history of nicotine product use within the last 12 months; **OR**
  - No lifetime history of nicotine product use, **AND**
- The patient has **ANY** of the following positive findings[1,2,7–11]:
  - Bunion deformity and **ALL** of the following:
    - Persistent pain; **AND**
    - Difficulty walking; **OR**
  - Documented hypermobility of the first tarsometatarsal (TMT) joint suggested by greater than 10mm of total sagittal motion; **OR**
  - Painful TMT joint with tenderness on exam; **OR**
  - Osteoarthritis of the midfoot; **OR**
  - Hindfoot deformity or arthrosis and triple arthrodesis indicated; **OR**
  - Congenital foot deformities (e.g., tarsal coalitions, metatarsus adductus, clubfoot, or neurological flatfoot deformities)[12–15]; **AND**
- **ANY** of the following:
  - Failure of conservative management for greater than 3 months, including **ALL** of the following[2,7]:
    - Anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids, neuropathic pain medications) if not contraindicated; **AND**

        - Physical therapy or a physician-directed home exercise program; **AND**
        - **ANY** of the following:
            - Corticosteroid injection if medically appropriate; **OR**
            - Documentation that corticosteroid injection is contraindicated; **OR**
            - Shoe modification; **OR**
            - Shoe insert or orthotics; **OR**
    - Trauma or wound due to deformity of the midfoot (e.g., Lisfranc injury)[16,17]; **AND**
- Radiographic confirmation with report (must be weight-bearing radiographs of the foot) of **ANY** of the following[18]:
    - Intermetatarsal (IM) angle greater than 15 degrees[7]; **OR**
    - Advanced osteoarthritis of the TMT joint or midfoot (e.g., joint space narrowing, osteophyte formation, subchondral cysts)[19]; **OR**
    - Traumatic disruption of the midfoot.

Non-Indications

Tarsometatarsal arthrodesis is not considered appropriate if **ANY** of the following is **TRUE**[2,20]:

- The presence of active, untreated infection at the surgical site (may be necessary for a DM ulcer correction); **OR**
- Significant bone loss with shortening of the foot rays that requires bone block fusion.

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
28297	Correction, hallux valgus (bunionectomy), with sesamoidectomy, when performed; with first metatarsal and medial cuneiform joint arthrodesis, any method
28730	Arthrodesis, midtarsal or tarsometatarsal, multiple or transverse
28735	Arthrodesis, midtarsal or tarsometatarsal, multiple or transverse; with osteotomy (eg, flatfoot correction)
28740	Arthrodesis, midtarsal or tarsometatarsal, single joint

Medical Evidence

Schwartz et al. (2024) conducted a two-part, randomized, double-blind, active-controlled trial. The study examined the efficacy, safety, and how liposomal bupivacaine (LB) works in the body when given through ultrasound-guided sciatic nerve block in the popliteal fossa during bunionectomy surgery. When administered through a sciatic nerve block in the popliteal fossa following a bunionectomy, LB 133 mg exhibited superior and enduring pain management compared to BUPI. The results are clinically significant as they were accompanied by simultaneous decreases in pain levels and opioid usage for up to 4 days post-surgery, with a notably higher proportion of participants abstaining from opioids. (ClinicalTrials.gov Identifier: NCT05157841).[8]

Ilfeld et al. (2021) performed a randomized controlled trial (RCT) to determine the impact of percutaneous peripheral nerve stimulation on postoperative pain levels and usage of opioids. Study participants included patients undergoing foot/ankle, knee, or shoulder surgeries. Each patient received percutaneous peripheral nerve stimulation preoperatively, followed by a single injection of long-acting local anesthetic along the same nerve. Postoperatively, patients were randomized into groups receiving active or sham stimulation for 14 days. The primary outcome measures were opioid consumption and pain scores within the first 7 postoperative days. Results showed that participants receiving active stimulation had significantly lower opioid consumption and pain scores compared to those receiving sham treatment. The authors concluded that percutaneous peripheral nerve stimulation effectively reduced pain and opioid requirements after ambulatory orthopedic surgery without systemic side effects.[9]

Stødle et al. (2020) conducted an RCT to evaluate primary arthrodesis of the first tarsometatarsal (TMT) joint in comparison to temporary bridge plating for managing unstable Lisfranc injuries. The study compared primary arthrodesis (PA) and temporary bridge plate (BP) treatments for Lisfranc injuries, 48 patients were followed for 2 years. PA involved fusing the medial 3 TMT joints, while BP involved placing a plate over the first TMT joint and fusing the second and third TMT joints. The main outcome measured was the American Orthopaedic Foot & Ankle Society (AOFAS) midfoot scale, with

secondary measures including SF-36, VAS pain scores, and radiographic assessments. Results showed no significant difference in AOFAS scores between groups, but better alignment of the first metatarsal was noted in the BP group. Overall, favorable outcomes were noted for both treatments.[10]

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Policy Revision History/Information

Original Date: April 19, 2024		
Review History		
Version 2	09/20/2024	Updated language regarding conservative treatment. Added non-indication for "ABI less than 0.7."
Version 3	07/31/2025	Annual Review. Added CPT code 28730. Added standard nicotine indications. Updated conservative care indications to revised standard language. Updated indication for hypermobility of the first tarsometatarsal (TMT) joint to include, "suggested by greater than 10mm of total sagittal motion." Added indication, "Osteoarthritis of the midfoot." Added indication, "Congenital foot deformities (e.g., tarsal coalitions, metatarsus adductus, clubfoot, or neurological flatfoot deformities)." Added "Trauma or wound due to deformity of the midfoot (e.g., Lisfranc injury)" as an indication that does not require failure of conservative care. Added "Traumatic disruption of the midfoot" to the possible radiographic confirmation indications. Removed non-indications, "The patient has not reached skeletal maturity," and "ABI less than 0.7."

		Added non-indication, “Significant bone loss with shortening of the foot rays that requires bone block fusion.” Literature review - Description and Medical Evidence sections updated (including references).