Surgery of the Ankle

Policy Number: 2023T0622H
Effective Date: October 1, 2023

Instructions for Use

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Application

UnitedHealthcare Commercial

This Medical Policy applies to all UnitedHealthcare Commercial benefit plans.

UnitedHealthcare Individual Exchange

This Medical Policy applies to Individual Exchange benefit plans in all states except for Colorado.

Coverage Rationale

Surgery of the ankle is proven and medically necessary in certain circumstances. For medical necessity clinical coverage criteria, refer to the:

- InterQual® CP: Procedures:
  - Arthrodesis, Ankle (Talotibial Joint)
  - Arthroscopy, Surgical, Ankle
  - Arthrotomy, Ankle
  - Total Joint Replacement (TJR), Ankle
- InterQual® Client Defined, CP: Procedures:
  - Arthroplasty, Ankle (Without Implant) (Custom) - UHG
  - Arthroplasty, Removal or Revision, Ankle (Custom) - UHG

Click here to view the InterQual® criteria.

Documentation Requirements

Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The documentation requirements outlined below are used to assess whether the member meets the clinical criteria for coverage but do not guarantee coverage of the service requested.

CPT Codes*	Required Clinical Information
Surgery of the Ankle	
27700 27702 27703 29891 29892 29894 29895 29897 29898 29899	Medical notes documenting the following, when applicable: • Upon request we may require the specific diagnostic image(s) that show the abnormality for which surgery is being requested, which may include MRI, CT scan, X-ray, and/or bone scan; consultation with requesting surgeon may be of benefit to select the optimal images **Note**: When requested, diagnostic image(s) must be labeled with: ○ The date taken ○ Applicable case number obtained at time of notification, or member's name and ID number on the image(s) Upon request diagnostic image(s) must be submitted via the external portal at www.uhcprovider.com/paan; faxes will not be accepted • Reports of all recent imaging studies and applicable diagnostic tests, including: ○ Microbiological findings ○ Synovial exam ○ Erythrocyte sedimentation rate (ESR) ○ C-reactive protein (CRP) • Condition requiring procedure • Severity of pain and details of functional disability(ies) interfering with activities of daily living (preparing meals, dressing, driving, walking) • Pertinent physical examination of the relevant joint • Co-morbid medical condition(s) • Prior therapies/ treatments tried, failed, or contraindicated; include the dates and reason for discontinuation • Date of previous failed surgery to the same joint, if applicable • Physician's treatment plan including pre-op discussion • For revision surgery, also include: ○ Details of complication ○ Complete (staged) surgical plan • If the location is being requested as an inpatient stay, provide medical notes to support the following, when applicable: ○ Surgery is bilateral ○ Member has significant co-morbidities; include the list of comorbidities and current treatment • Member does not have appropriate resources to support postoperative care after an outpatient procedure; include the barriers to care as an outpatient

*For code descriptions, refer to the Applicable Codes section.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CPT Code	Description
Arthrotomy, Ankle	
27685	Lengthening or shortening of tendon, leg or ankle; single tendon (separate procedure)
Total Joint Replacement (TJR), Ankle	
27700	Arthroplasty, ankle
27702	Arthroplasty, ankle; with implant (total ankle)

CPT Code	Description
Total Joint Replacement (TJR), Ankle	
27703	Arthroplasty, ankle; revision, total ankle
27704	Removal of ankle implant
Arthroscopy, Surgical, Ankle	
29891	Arthroscopy, ankle, surgical, excision of osteochondral defect of talus and/or tibia, including drilling of the defect
29892	Arthroscopically aided repair of large osteochondritis dissecans lesion, talar dome fracture, or tibial plafond fracture, with or without internal fixation (includes arthroscopy)
29894	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; with removal of loose body or foreign body
29895	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; synovectomy, partial
29897	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; debridement, limited
29898	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; debridement, extensive
29899	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; with ankle arthrodesis
Arthrodesis, Ankle (Talotibilial Joint)	
29899	Arthroscopy, ankle (tibiotalar and fibulotalar joints), surgical; with ankle arthrodesis

Description of Services

Osteoarthritis is also known as degenerative arthritis and common for many people after they reach middle age, however it may occur in younger people as well. In osteoarthritis, the cartilage in the joint gradually wears away. As the cartilage wears away, it becomes frayed and rough, and the protective space between the bones decreases. This can result in bone rubbing on bone and produce painful osteophytes (bone spurs).

Posttraumatic arthritis can develop after an injury to the foot or ankle and dislocations and fractures are the most common injuries that lead to post-traumatic arthritis. Like osteoarthritis, posttraumatic arthritis causes the cartilage between the joints to wear away and can develop many years after the initial injury.

Clinical Evidence

Goldberg and associates (2022) conducted a multicenter, parallel-group, open-label randomized controlled trial to determine which treatment (total ankle replacement [TAR] or ankle arthrodesis) is superior regarding clinical scores and adverse events. Participants were randomized to TAR or ankle fusion (AF) surgical treatment. The Manchester-Oxford Foot Questionnaire walking/standing (MOXFQ-W/S) domain scores from baseline to 52 weeks postoperative. Included in the trial were 281 individuals whose results showed an improvement in MOXFQ-W/S scores at 52 weeks for both groups with an adjusted difference in the change of scores of -5.6 (95% CI, -12.5 to 1.4), demonstrating TAR as having more improvement than AF, however not a clinically significant difference. Likewise, the adverse events in each group remained similar, and the symptomatic nonunion rate for AF was 7%. Limitations of the trial include the short follow-up time (52 weeks) and pragmatic design that creates heterogeneity of implants and surgical techniques. The authors concluded that both TAR and AF improve MOXFQ-W/S and had similar clinical scores and the number of harms.

In 2022, Watts and colleagues systematically reviewed the results of total ankle arthroplasty (TAA) to tibiotalar fusion (ankle arthrodesis) for individuals with end-stage ankle osteoarthritis. Of the 21 studies included, 2,016 individuals received arthroplasty, and 256 received arthrodesis (5 studies). The outcomes measured were the difference in Patient Reported Outcome Measures (PROMs) at two and five years. The comparison results showed no significant difference at two years post-surgery with American Orthopaedic Foot and Ankle Society (AOFAS) scores of 78.8 and 80.8 for the arthroplasty and arthrodesis groups in that order. The revision rates for arthroplasty (-3.5% n = 9) and arthrodesis (3.7% n = 61) were similar. Limitations of the study include the lack of ability to compare the outcomes of individuals undergoing arthrodesis with TAA and

no randomized control trials published in the literature. The authors concluded that one group has no superiority over the other when considering outcomes at two years postoperatively.

Kunutsor et al. (2020) conducted a systematic review and meta-analysis to compare the clinical effectiveness of various treatment approaches for infected ankle prostheses. A systematic electronic search was conducted in Medline, Embase, and the Cochrane Library from inception to December 2018. The authors included longitudinal observational studies and RCTs in individuals with infected ankles that evaluated the clinical impact of any of the following six strategies: long-term suppressive antibiotic treatment without surgical intervention, debridement, and implant retention with or without polyethylene exchange, 1-stage revision surgery, 2-stage revision surgery, prostheses removal with implantation of cement spacer, and arthrodesis. The authors found arthrodesis and debridement and implant retention (DAIR) with or without polyethylene exchange to be the most common in treating infected ankle prosthesis but associated with poor infection control. Limitations included limited data availability, which identified applied principles of infected total hip arthroplasty (THA) and total knee arthroplasty (TKA) to that of TAA, but because prosthetic joint infection (PJI) of ankles seems to originate from exogenous sources, infection is difficult to diagnose, and therefore, no consensus on the definition of PJI following TAR, thus differences on how to treat the condition.

In Hutchinson and Schweitzer (2020) the authors identify a revision of the ankle as an indication of periprosthetic infection. Following confirmation of infection, there are several options to consider, but antibiotic therapy which includes removal of the implant, and addition of an antibiotic spacer followed by reimplantation in 6 months to 12 months, is usually the first option; other options include grafting or amputation.

In an updated document on PJI, Beam and Osmon (2018) ascertain that the presence of a sinus tract on its own can be a definitive diagnosis of PJI. The most curative surgical approach for PJI involves a two-stage exchange (TSE), which starts with debridement of the infected tissue, removal of existing prosthesis and cement, culture collection, and placement of antibiotic-loaded cement spacer into the joint space to deliver high-dose local antimicrobial therapy and provide structural support.

Known complications of joint replacement continue to require revisional surgery. Steck et al. (2017) list intraoperative and postoperative complications that may require revision for TAA. Intraoperative complications include superficial/deep joint infection, fractures, implant dislocation, and aseptic loosening. Deep periprosthetic infection (DPI) is one of the most common reasons that lead to TAA failure and occurs more than 50% of the time. The authors also maintain that the following factors should be considered when assessing for joint failure: patient symptoms, pain, subsidence, alignment, infection, and implant integrity.

In the Foot and Ankle Clinic Journal, Alrashidi et al. (2017) identify key points for diagnosing and treating infection for TAA. Accurate and complete patient history is imperative to identify clues that raise suspicion for an acute or chronic infection. Physical examination should include the following: general appearance of the ankle and hindfoot, signs of swelling, joint effusion, erythema, excessive warmth, and/or wound healing issues. Range of motion (ROM) should be measured clinically using a goniometer and noted if associated with pain. Conventional radiographs should be conducted; however, CT may provide additional information regarding periprosthetic osteolysis in patients with TAA. Blood tests such as CRP and ESR are easy to perform and cost-effective screening tools and, if elevated, validate the need to perform joint aspiration and synovial fluid analysis and then send on for culture. Treatment options for infected prostheses include antimicrobial therapy, irrigation, debridement, prosthesis removal with implant replacement, or ankle arthrodesis.

Posttraumatic arthritis is common in the ankle joint. In an article titled “The Concept of Ankle Joint Preserving Surgery,” Tanaka (2012) discusses joint-preserving surgical techniques, including arthroscopic debridement, ligament reconstruction, distraction arthroplasty, and osteotomy. The author states that indications for supramalleolar osteotomy are limited but have been used to treat individuals with osteoarthritis of the ankle due to posttraumatic malunion. In addition, because a TAA is not always an indication of an ankle with severe malalignment, realignment surgery may be necessary before arthroplasty.

Clinical Practice Guidelines

American Academy of Orthopaedic Surgeons (AAOS)

A 2019 Evidence-Based Clinical Practice Guideline for the diagnosis and prevention of periprosthetic joint infections (PJI) recommends the following:

Blood Tests for Preoperative Diagnosis

Strong evidence supports the use of the following to aid in the preoperative diagnosis of PJI:

- Serum erythrocyte sedimentation rate (ESR)
- Serum C-reactive protein (CRP)
- Serum interleukin-6

Synovial Fluid Tests

Moderate strength evidence supports the use of the following to aid in the diagnosis of PJI:

- Synovial fluid leukocyte count and neutrophil percentage
- Synovial fluid aerobic and anaerobic bacterial cultures
- Synovial fluid leukocyte esterase
- Synovial fluid alpha-defensin (α-defensin)
- Synovial fluid C-reactive protein (CRP)
- Synovial fluid nucleic acid amplification testing [e.g., polymerase chain reaction (PCR)] for bacteria

Intraoperative Tests

Strong evidence supports the use of histopathology to aid in diagnosing PJI.
Moderate strength evidence supports the use of the following to aid in the diagnosis of PJI:

- Multiple aerobic and anaerobic bacterial periprosthetic tissue cultures
- Implant sonication fluid aerobic and anaerobic bacterial cultures
- Implant sonication fluid nucleic acid amplification testing (e.g., PCR) for bacteria

Limited strength evidence supports that periprosthetic tissue nucleic acid amplification testing for bacteria is not useful in diagnosing PJI.

Diagnostic Imaging

Limited strength evidence supports the use of the following to aid in the diagnosis of PJI:

- 18F-FDG PET/CT
- 18F-NaF PET/CT
- CT

Limited strength evidence supports the clinical utility of nuclear imaging to aid in diagnosing PJI.

Gram Stain

Moderate strength evidence supports that the practitioner avoids using intraoperative gram stain to rule out PJI.

American Orthopaedic Foot and Ankle Society (AOFAS)

In the 2022 position statement from the AOFAS, the society endorses using TAR surgery to treat arthritic conditions of the ankle in select individuals with this condition who have failed nonoperative treatment. The AOFAS does not consider this procedure to be experimental.

National Institute for Health and Care Excellence (NICE)

The 2022 NICE guideline on Osteoarthritis diagnosis and management offers the following recommendations regarding referrals for joint replacement:

- Consider referring people with hip, knee or shoulder osteoarthritis for joint replacement if:
  - Their joint symptoms (such as pain, stiffness, reduced function or progressive joint deformity) are substantially impacting their quality of life; and
  - Non-surgical management (for example, therapeutic exercise, weight loss, pain relief) is ineffective or unsuitable.
- Use clinical assessment when deciding to refer someone for joint replacement, instead of systems that numerically score severity of disease.
- Do not exclude people with osteoarthritis from referral for joint replacement because of:
  - Age
  - Sex or gender
  - Smoking

    - Comorbidities
    - Overweight or obesity, based on measurements such as body mass index (BMI)
- If discussing referral for joint replacement, explain to the person with osteoarthritis that the risks of joint replacement can vary depending on the factors listed in recommendation above.

In an updated osteoarthritis care and management clinical guideline, the NICE recommends a holistic approach to osteoarthritis which includes patient access to self-management strategies such as exercise, weight loss, and suitable footwear. Oral analgesics (i.e., acetaminophen), NSAIDs, and topical analgesics should be offered for pain relief; intra-articular corticosteroid injections can be considered in addition to core treatments for relieving moderate to severe pain. The guideline also suggests surgery be considered when the individual has not responded to non-surgical treatment (NICE, 2014; updated 2020).

The NICE (2015) interventional procedures guideline states that conservative treatments for ankle osteoarthritis include analgesics, corticosteroid injections to relieve pain and inflammation, in addition to PT and prescribed exercise to improve function and mobility. Surgery may be indicated when symptoms are severe, including procedures such as arthroscopic surgery, fusion, or total ankle replacement.

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Surgeries of the ankle are procedures and, therefore, not regulated by the FDA. However, devices and instruments used during the surgery may require FDA approval. Refer to the following website for additional information: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm. (Accessed March 20, 2023)

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Policy History/Revision Information

Date	Summary of Changes
10/01/2023	**Application** ***Individual Exchange Plans*** • Removed language indicating this Medical Policy does not apply to Individual Exchange benefit plans in the states of Massachusetts, Nevada, and New York **Supporting Information** • Archived previous policy version 2023T0622G

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard plan. In the event of a conflict, the member specific benefit plan document governs. Before using this policy, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

This Medical Policy may also be applied to Medicare Advantage plans in certain instances. In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence (Medicare IOM Pub. No. 100-16, Ch. 4, §90.5).

UnitedHealthcare may also use tools developed by third parties, such as the InterQual® criteria, to assist us in administering health benefits. UnitedHealthcare Medical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.