Medical Policy

Blue Cross Blue Shield Blue Care Network of Michigan

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Category: Surgery
***Current Policy Effective Date: 9/1/10**

Title: Total Ankle Replacement

**Procedure Code(s): 27702, 27703

Description / Background

The ankle joint is a comparatively small joint relative to the weight bearing and torque it must withstand. These factors have made the design of total ankle joint replacements technically challenging. The alternative to total ankle replacement is arthrodesis, which may lead to alterations in gait and onset of arthrosis in joints adjacent to the fusion. Total ankle replacement has been investigated since the 1970s, initially with promising results. The procedure was essentially abandoned in the 1980s due to a high long-term failure rate, both in terms of pain control and improved function. Newer models have since been developed and are subdivided into two design types, fixed-bearing and mobile-bearing.

Fixed-bearing designs lock the polyethylene component into the baseplate and provide greater stability. Fixed-bearing designs increase constraint and edge-loading stress at the bone implant interface, potentially increasing risk of early loosening and failure. The first fixed-bearing devices were implanted with cement fixation which requires removal of more bone.

Mobile-bearing systems have a polyethylene component that is unattached and articulates independently with both the tibial and talar components. The 3-piece mobile-bearing prostheses are designed to reduce constraint and edge loading, but are less stable than fixed-bearing designs and have the potential for dislocation and increased wear of the polyethylene component. Mobile-bearing designs are intended for uncemented implantation and have a porous coating on the components to encourage osseo-integration.

*See policy history boxes for any previous effective dates if applicable
**See section "CPT/HCPCS Level II Codes" for additional code(s) if applicable.

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The main alternative to total ankle replacement is arthrodesis. While both procedures are designed to reduce pain, the total ankle replacement is also intended to improve function. Total ankle replacement has been performed most commonly in patients with severe rheumatoid arthritis, severe osteoarthritis, septic arthritis or post-traumatic osteoarthrosis.

CPT / HCPCS Level II Codes *(Note: The inclusion of a code in this list is not a guarantee of coverage. Please refer to the medical policy statement to determine the status of a given procedure)*

Established codes:

27702 27703

Diagnoses / Medical Conditions

Arthritis

Medical Policy Statement

The safety and effectiveness of total ankle replacement have been established. It may be considered a useful therapeutic option in patients meeting selection criteria.

Rationale

The established standard for the painful ankle is fusion, which usually results in a pain free but rigid ankle in the short term. Complications with ankle fusion are non-union, an increase in arthrosis and pain in the adjoining joints, and not uncommonly amputation. For specific conditions, including the presence of bilateral subtalar or Chopart arthrosis, fusion is not indicated. Although long-term evidence is lacking, short-term results suggest similar improvements in pain and function in comparison with arthrodesis and midterm results suggest (70-80%) survival at 10-15 years. Total ankle replacement is a viable option with prostheses that are continuing to evolve. Therefore, in the absence of an established alternative for specific situations, total ankle replacement may be considered medically necessary when the specified conditions are met.

The following outcomes are relevant to the analysis of safety and efficacy of total ankle replacement compared to ankle arthrodesis, the standard treatment alternative.

- Resolution of pain
- Function of both ankle and proximal joint in various activities, such as walking on flat or irregular surfaces, walking up stairs
- Long term outcomes including time to revision and the development of arthritis in the tarsus, knee or hip related to strain on adjacent joints

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Medical Policy Position Summary (Non-clinical summary statement for customer use)

Arthritis is inflammation of one or more joints that result in pain, swelling, stiffness and limited movement. The physician can perform an arthrodesis (fusion) of the ankle joint in order to relieve the pain caused by the arthritis. However, fusion sacrifices the function and results in a fixed, non-movable joint. Another alternative to repairing ankle joint damage from arthritis is an arthroplasty with implant to correct joint problems caused by arthritis. Three portal incisions are made at the front and sides of the ankle. Joint surfaces are smoothed and scar tissues are removed from the joint. If excessive damage is noted, the physician replaces damaged parts of the ankle with a prosthesis approved by the U. S. Food and Drug Administration (FDA).

Inclusionary and Exclusionary Guidelines (Clinically based guidelines that may support individual consideration and pre-authorization decisions)

Total ankle replacement may be considered established in patients when pain limits daily activity and both of the following conditions have been met:

- The patient is an older adult (e.g., age greater than 55).
- The diagnosis is bilateral, subtalar or midfoot arthritis.

Exclusion criteria:

- Severe non-correctable hindfoot varus/valgus deformity
- Morbidly obese (e.g., body mass index [BMI] > 40 kg/m2)
- Participates in high impact activities
- Unsupportive ligamentous or other soft tissue around the joint
- Prior infection or septic arthritis
- Peripheral vascular disease
- Peripheral neuropathy

Total ankle replacement is considered experimental/investigational for all other indications.

Related Policies

- Meniscal Allografts
- Osteochondral Autografts and Allografts

Medicare Information

There is no national or local policy Medicare coverage determination on this topic, however it is payable.

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(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicaid Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)

References

- Blue Cross Blue Shield Association, "Total Ankle Replacement," *Medical Policy Reference Manual,* Policy 7.01.77, Issue 4:2009, original policy date 4/29/03, last review date 4/24/09.
- Feldman, M. H., "Buechel-Pappas total ankle prosthesis: results in patients 5 to 7 years Postimplantation," *Clinics in Podiatric Medicine and Surgery,* October 2006, Volume 23, Issue 4, pp. 733-743.
- HAYES Medical Technology Directory*, "*Total Ankle Replacement," Lansdale, PA*: HAYES, Inc.,* October 9, 2007*.*
- Haddad, S. L., et al., "Intermediate and Long-term Outcomes of Total Ankle Arthroplasty and Ankle Arthrodesis. A Systematic Review of the Literature," *The Journal of Bone and Joint Surgery*, 2007, Volume 89, Issue 9, pp 1899-1905.
- Wood, P. L., "Total Ankle Replacement for Rheumatoid Ankle Arthritis," *Foot Ankle Clinic*, September 2007; Volume 2, Issue 3, pp. 497-508.

The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through5/19/10, the date the research was completed.

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Joint BCBSM/BCN Medical Policy History

Policy Effective Date	BCBSM Signature Date	BCN Signature Date	Comments
9/1/09	7/16/09	6/16/09	Joint medical policy established
9/1/10	6/15/10	6/29/10	Routine maintenance, policy retired

Next Review Date: No longer requires routine review.

Pre-Consolidation Medical Policy History

Original Policy Date	Comments
BCN: N/A	Revised: N/A
BCBSM: N/A	Revised: N/A

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BLUE CARE NETWORK BENEFIT COVERAGE POLICY: TOTAL ANKLE REPLACEMENT

I. Short Description:

Arthritis of the ankle is caused by inflammation of the joint that result ins pain, swelling, stiffness and limited movement. The physician can perform an arthrodesis (fusion) of the ankle joint in order to relieve the pain caused by the arthritis. However, fusion results in a fixed, non-movable joint. Another alternative to repairing ankle joint damage from arthritis is an arthroplasty with implant to correct joint problems caused by arthritis. Three portal incisions are made at the front and sides of the ankle. Joint surfaces are smoothed and scar tissues are removed from the joint. If excessive damage is noted, the physician replaces damaged parts of the ankle with an FDA-approved prosthesis.

II. Coverage Determination:

Commercial HMO (includes Self-Funded groups unless otherwise specified)	Covered
BCNA (Medicare Advantage)	Covered
BCN65 (Medicare Complementary)	Coinsurance covered if primary Medicare covers the service.
BlueCaid	Covered

III. Administrative Guidelines:

- The member's contract must be active at the time the service is rendered.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Payment is based on BCN payment rules, individual certificate benefits and certificate riders.
- Appropriate copayments will apply. Refer to certificate and applicable riders for detailed information.
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.

IV. Effective Dates:

Policy updated: 9/1/10, policy retired.
JUMP policy effective date: 9/1/09

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