
Medical Policy



Joint Medical Policies are a source for BCBSM and BCN medical policy information only. These documents are not to be used to determine benefits or reimbursement. Please reference the appropriate certificate or contract for benefit information.

Category: Surgery

***Current Policy Effective Date: 5/1/09**

Title: Osteochondral Autografts and Allografts for Treatment of Articular Cartilage Lesions of the Ankle

*** * Procedure Code(s):
28446; 27899**

Description/Background

The talus is the major weight-bearing bone in the ankle, articulating directly with the tibia. Osteochondral lesions of the talus (OLT) occur predominately in younger patients, usually between the ages of 20 and 35 years, and are thought to result mainly from trauma. These lesions consist of damage to the tough hyaline cartilage overlying the bone with various degrees of damage to the underlying (subchondral) bone. Patients, athletes in particular, may have disabling pain and weakness of the ankle. Initial therapy includes immobilization, physical therapy and medications, but when symptoms persist surgery is the only option. Operations to correct or ameliorate symptoms of OLT include

- Arthroscopy and debridement
- Drilling
- Microfracture of the bone to promote new blood supply and stimulate new tissue formation and healing, and
- Osteochondral autologous transplant (OAT) or allograft (OAG).

These techniques try to achieve growth of new fibrocartilage on the articular surface. Many patients show improvement after these procedures, even though the resulting fibrocartilage is not as durable as hyaline cartilage. Bone graft procedures are usually reserved for patients who fail to improve after debridement, drilling and/or microfracture treatment. Osteochondral grafts try to achieve healing with a normal or near normal cartilage surface.

***See policy history boxes for any previous effective dates if applicable**

****See section "CPT/HCPCS Level II Codes and Description" for code nomenclature and for additional code(s) if applicable.**

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BCBSM/BCN Medical Policies are developed to provide general information about Blue Cross Blue Shield and Blue Care Network of Michigan medical policies. This policy is not intended to offer coverage or medical advice. This policy may be updated and is therefore subject to change.

Osteochondral Autografts and Allografts for Treatment of Articular Cartilage Lesions of the Ankle.RBps.050109.EST

Osteochondral autograft transplant (OAT) involves the transplantation into the talus of small cores of healthy bone and hyaline cartilage, usually taken from the side of the femoral head at the knee. The Osteochondral Autograft Transfer System (OATS) is a specific device used for the transplantation of a single plug, whereas “mosaicplasty” refers to the transplantation of multiple smaller plugs. Surgical access is through an open incision or via arthroscopy. The injured tissue is removed and replaced by the osteochondral graft.

Osteochondral allografting (OAG) uses a graft of fresh or frozen cadaver tissue and is usually reserved for very large articular surface defects. The allografts are size -matched to the recipient by x-rays and a precise area of the damaged ankle is removed surgically and replaced with an exact-fit graft shaped from the donor tissue. Tissue matching is not necessary since bone grafts do not stimulate the host’s immune system. The results of OAG are not as good as with other procedures and more long-term studies are needed. One additional concern with fresh allografts is the possibility of transmission of disease.

Osteochondral graft procedures are usually limited to patients under age 50, with stable joints and no associated arthritis. A newer procedure for repairing large articular defects, called autologous chondrocyte implantation (AIC), which uses cultured chondrocytes implanted under a periosteal barrier, is more complex. There is only limited information at this time regarding the safety and advisability of this procedure.

CPT/HCPCS Level II Codes and Description *(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:

28446 Open osteochondral autograft, talus (includes obtaining graft[s])

Other codes (investigational, not medically necessary, etc.):

27899 Unlisted procedure, leg or ankle

Diagnoses/Medical Conditions

- Osteochondritis dissecans of the talus
- Osteochondral lesions of the talus

Medical Policy Statement

- Osteochondral autografts in the treatment of articular cartilage lesions of the ankle are considered established. The safety and effectiveness of these procedures have been proven.

- Osteochondral allografts are considered experimental/investigational. The safety and effectiveness of this procedure have not been proven.

Rationale

The published evidence on the effectiveness and safety of osteochondral autografts for patients with OLT comparing outcomes for OAT, chondroplasty and microfracture indicates that pain reduction and functional improvement are better in osteochondral autograft transplant patients with small OLT's. In the case series, good to excellent results were obtained in 90% or more of patients undergoing OAT with few complications. One randomized study showed similar results for OAT, drilling and microfracture techniques.

The published evidence for allografting is limited to seven small case series and in these, from 20 to 50% of grafts had failed at follow-up examinations. Perioperative complications appeared few, but reoperation for failed grafts, hardware removal or further debridement was common. The evidence is therefore insufficient to draw definitive conclusions about this procedure. On the basis of the current evidence, medical institutions should exhaust more conventional surgical options such as debridement, drilling and microfracture for smaller lesions and OATS or mosaicplasty in appropriate patients (those without arthritis or younger than 50 years) before considering allografting.

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

The talus is the major bone in the ankle that is joined directly with the tibia. Osteochondral lesions of the talus (previously called osteochondritis dissecans) occur when a defect develops in the hyaline cartilage on the articular surface of the talus. A range of surgical procedures is available to treat this condition when it is causing pain and difficulty walking or running, starting with simple arthroscopy and removal of loose tissue up to and including small bone grafts or transplants using the cartilage taken from a less weight-bearing area of bone.

Osteochondral autologous transplantation or autografting (i.e., using one's own bony tissue for transplant) is established for articular cartilage lesions of the ankle when other measures have failed. Results with allografting (using cadaver bony tissue) for the ankle are not as good. This policy currently considers osteochondral allograft for the ankle experimental/investigational.

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

Inclusions;

- Autografts are not covered as a first-line treatment

- Autografting is used when all other forms of treatment either have failed or are not indicated for the diagnosis.

Exclusions:

- Allografts

Related Policies

Osteochondral Allograft and Autograft

Medicare Information

No national and local Medicare information available. There is a reimbursement fee for this procedure.

(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, "Osteochondral Autografts and Allografts in the Treatment of Focal Articular Cartilage Lesions," *Medical Policy Reference Manual*, #7.01.78, Issue 5:2008, Original Policy Date August 2001, Last Review Date 5/08/08.
 - Chang, Edward, BSc(PT) and Eric Lenczner, MD, "Osteochondritis Dissecans of the Talar Dome Treated with an Osteochondral Autograft," *Canadian Journal of Surgery*, Vol. 43, No. 3, 200, pp. 217-221.
 - Chew, Kelvin T. L., MBBCh, MSpMed, et al., *Annals Academy of Medicine*, Vol. 37, No. 1, 2008, pp. 63-68.
 - Chodus, Marc, D and Lew C. Schon, "Osteochondral lesions of the talus: current treatment modalities and future possibilities," *Current Opinions in Orthopedics*, Vol. 17, 2006, pp. 111-116.
 - Docquier, Pierre-Louis, et al., "The use of allografts in paediatric orthopaedic surgery," *Acta Orthopaedica Belgica*, Vol. 73, No. 5, 2007, pp. 551-557.
 - Gautier, E., et al., "Treatment of cartilage defects of the talus by autologous osteochondral grafts," *Journal of Bone Joint Surgery*, Vol. 84-B, 2002, pp. 237-244.
 - Gobbi, Alberto, MD, et al., "Osteochondral Lesions of the Talus: Randomized Controlled Trial Comparing Chondroplasty, Microfracture, and Osteochondral Autograft Transplantation," *Arthroscopy: The Journal of Arthroscopic and Related Surgery*, Vol. 22, No. 10, 2006, pp. 1085-1092.
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Medical Policy Title: Osteochondral Autograft and Allograft for Treatment of Articular Cartilage Lesions of the Ankle

- *Hayes brief*, "Osteochondral Allograft for Articular Disorders of the Ankle," Lansdale, PA: HAYES, Inc., March 19, 2007, Update March 27, 2008.
- *Hayes brief*, "Osteochondral Autograft Transplantation (OAT) for Lesions of the Talus (Ankle)," Lansdale, PA: HAYES, Inc., December 9, 2006, Update December 7, 2007.
- Sexton, Alonzo T. and Sameh A. Labib, "Osteochondral lesions of the talus: current opinions on diagnosis and management," *Current Opinions in Orthopedics*, Vol. 18, 2007, pp. 166-171.

The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through October 30, 2008, the date the research was completed.

Joint BCBSM/BCN Medical Policy History

Policy Effective Date	BCBSM Signature Date	BCN Signature Date	Comments
5/1/09		2/10/09	Joint policy established

Next Review Date: 1st Qtr, 2010

Pre-Consolidation Medical Policy History

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

BLUE CARE NETWORK BENEFIT COVERAGE
POLICY: OSTEOCHONDRAL AUTOGRAFTS AND ALLOGRAFTS FOR TREATMENT OF
ARTICULAR CARTILAGE LESIONS OF THE ANKLE

I. Short Description:

The talus is the major bone in the ankle that is joined directly with the tibia. Osteochondritis dissecans lesions of the talus are separations of the hyaline cartilage overlying the talus bone. Alternate approaches for resurfacing the defects with a more durable cartilage include using the cartilage from a less weight-bearing area and transplanting it into the defect.

Osteochondral autografting is established for articular cartilage lesions of the ankle. Currently allografting is an emerging technology for the ankle and this policy currently considers osteochondral allograft for the ankle experimental/investigational.

II. Coverage Determination:

Commercial HMO (includes Self-Funded groups unless otherwise specified)	Osteochondral autografts covered Osteochondral allografts not covered Policy guidelines apply
BCNA (Medicare Advantage)	Covered; criteria applies.
BCN65 (Medicare Complementary)	Coinsurance covered if primary Medicare covers the service. Exception: If BCN65 member has an "exact-fill" option, BCN may cover the service even if Medicare does not.
BlueCaid	Covered; criteria applies.

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 section, "**Inpatient Hospital Services**" 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:

JUMP policy effective date: 5/1/09

Blues highlight medical, benefit policy changes

You'll find the latest information about procedure codes and Blue Cross Blue Shield of Michigan billing guidelines in the following chart.

This billing chart is organized numerically by procedure code. Newly approved procedures will appear under the *New Payable Procedures* heading. Procedures for which we have changed a billing guideline or added a new payable group will appear under *Updates to Payable Procedures*. Procedures for which we are clarifying our guidelines will appear under *Policy Clarifications*.

New procedures that are not covered will appear under *Investigational Procedures*.

We will publish information about new BCBS groups or changes to group benefits under the *Group Benefit Changes* heading.

For more detailed descriptions of the BCBSM policies for these procedures, please check the Simple Search for Benefit Policy on web-DENIS. To access this online information:

- Log onto web-DENIS.
- Click on *BCBSM Provider Publications & Resources*.
- Click on *Benefit Policy for a Code*.
- Enter the procedure code.

NEW PAYABLE PROCEDURES

Code* and Description

BCBSM Changes to:

Basic Benefit Policy ? Group Variations Payment Policy (for Michigan providers) ?
Guidelines

28446

Open osteochondral autograft, talus (includes obtaining graft[s])

Basic Benefit Policy

Osteochondral autografts, in the treatment of articular cartilage lesions of the ankle are currently considered established. The safety and effectiveness of this procedure has been proven.

27899

Unlisted procedure, leg or ankle

Osteochondral allografts, in the treatment of articular cartilage lesions of the ankle are considered experimental/investigational.

Basic Benefit Policy Group Variations

X

Payment Policy

X

Inclusionary guidelines:

Osteochondral autografting is only used when all other treatments have either failed or are not indicated for the diagnoses

Exclusionary guidelines:

Allografting

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Medical Policy update

- *The following applies to BCN members*
- *The effective date is indicated for the service, technology or procedure.*

Covered service

Osteochondral Autograft and Allograft for the Treatment of Articular Cartilage Lesions of the Ankle

- *New policy*
- *Effective date: 03/01/09*
- *Procedure code(s):*
 - **28446 – Osteochondral autografts and allografts in the treatment of articular cartilage lesions of the ankle are currently considered experimental/investigational. The safety and effectiveness of these procedures has not been proven.*
 - **27899 – Unlisted procedure, leg or ankle*

The talus is the major bone in the ankle that is joined directly with the tibia. Osteochondritis dissecans lesions of the talus are separations of the hyaline cartilage overlying the talus bone. Alternate approaches for resurfacing the defects with a more durable cartilage include using the cartilage from a less weight-bearing area and transplanting it into the defect. Osteochondral autograft transplant (OAT) involves the transplantation of small plugs of healthy bone and hyaline cartilage from other areas of the body (usually less weight-bearing areas). Small holes are drilled through the lesion and the newly harvested plugs are inserted into the holes.

Osteochondral allograft transplantation of an osteochondral graft of fresh and frozen tissue from a cadaver may also be used as an alternative to other surgical procedures. The patient population for allografts comprises those with large osteochondral lesions or severe arthritis who may otherwise be candidates for joint fusion or replacement

Osteochondral autografting is established for articular cartilage lesions of the ankle. Allografting is an emerging technology for the ankle and this policy currently considers osteochondral allograft for the ankle experimental/investigational.

Osteochondral autografting is not used as a first-line treatment. It is only used when all other treatments fail or are not indicated for the diagnosis.

Allografting is considered i nvestigational.