

**Policy terminated because Medicaid covers codes in the same manner as
Health Choice.**

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1.0 Description of the Procedure, Product, or Service

Focal chondral defects of the knee, either due to trauma or other conditions such as osteochondritis dissecans, often fail to heal on their own and may be associated with pain, loss of function, disability, and the long-term complication of osteoarthritis. Various methods of cartilage resurfacing have been investigated including marrow stimulation techniques such as subchondral drilling, microfracture, and abrasion arthroplasty.

Osteochondral grafts have also been investigated. Both fresh and cryopreserved allogenic osteochondral grafts have been used with some success, although cryopreservation decreases the viability of cartilage cells, and fresh allografts may be difficult to obtain and create concerns regarding infectious diseases. For these reasons, there has been ongoing interest in autologous osteochondral grafts as an option to increase the survival rate of the grafted cartilage and to eliminate the risk of disease transmission. Autologous grafts have been limited by the small number of donor sites; single grafts have been harvested from the patella, femoral condyle, and proximal part of the fibula. In an effort to extend the amount of the available donor tissue, investigators have used multiple, small osteochondral cores harvested from various non-weight-bearing sites in the knee. Two related procedures, osteochondral mosaicplasty and osteochondral autograft transfer system (OATS) have been described. In the mosaicplasty procedure the chondral lesion is excised, and abrasion arthroplasty is performed to refresh the bone base of the defect. Multiple individual osteochondral cores are harvested from the donor site, typically from a peripheral non-weight-bearing area of the femoral condyle. The grafts are press fit into the lesion in a mosaic-like fashion within the same-sized drilled recipient tunnels. The resultant surface consists of transplanted hyaline cartilage and fibrocartilage arising from the abrasion arthroplasty. The fibrocartilage is thought to provide "grouting" between the individual autografts. Mosaicplasty may be performed with either an open approach or arthroscopically if the lesion is small and not more than 4 to 6 grafts are needed.

The OATS procedure focuses on chondral defects that are associated with chronic tears of the anterior Cruciate ligament (ACL), using an arthroscopic approach that can provide access to both the ACL for reconstruction and performance of the autograft. Although mosaicplasty and OATS may use different instrumentation, the underlying principle is similar.

1.1 Medical Term Definitions

- a. Allograft: Transfer of human organ and/or tissue from one person to another.
- b. Arthroplasty: Surgical repair of a joint.
- c. Autograft: Transfer of human organ and/or tissue from one site to another in the same recipient. Autologous: derived from the same organism, i.e., self donation.
- d. Mosaicplasty: A cartilage transfer procedure that moves healthy cartilage plugs from a normal area of the knee to a damaged area.
- e. OATS: Osteochondral Autograft Transfer System. This procedure is similar to mosaicplasty except that the plugs of healthy tissue are usually larger, and therefore only one or two plugs are needed to fill the area of cartilage damage.

2.0 Eligible Recipients

2.1 General Provisions

To be eligible, NCHC recipients must be enrolled on the date of service.

3.0 When the Procedure, Product, or Service Is Covered

3.1 General Criteria

NCHC covers procedures, products, and services related to this policy when they are medically necessary and

- a. the procedure, product, or service is individualized, specific, and consistent with symptoms or confirmed diagnosis of the illness or injury under treatment, and not in excess of the recipient's needs;
- b. the procedure, product, or service can be safely furnished, and no equally effective and more conservative or less costly treatment is available; **AND**
- c. the procedure, product, or service is furnished in a manner not primarily intended for the convenience of the recipient, the recipient's caretaker, or the provider.

3.2 Specific Criteria

- a. Osteochondral allografting may be considered medically necessary as a technique to repair large (e.g., 10cm²) full thickness chondral defects caused by acute or repetitive trauma.
- b. Osteochondral autografting, using one or more cores of osteochondral tissue, may be considered medically necessary for the treatment of symptomatic full thickness cartilage defects caused by acute or repetitive trauma, in recipients who have had an inadequate response to a prior surgical procedure, when **ALL** of the following have been met:
 1. The recipient is skeletally mature and not considered an appropriate candidate for total knee arthroplasty or other reconstructive knee surgery (e.g., age greater than 15 and less than 55);
 2. Focal, full thickness (grade III or IV) uni-polar lesions on the weight bearing surface of the femoral condyles or trochlea that are between 1 and 2.5 cm² in size;
 3. Documented minimal to absent degenerative changes in the surrounding articular cartilage (Outerbridge Grade II or less), and normal appearing hyaline cartilage surrounding the border of the defect;
 4. Normal knee biomechanics, or alignment and stability achieved concurrently with osteochondral grafting; **AND**
 5. Absence of meniscal pathology.

3.3 Policy Guidelines

Only one relatively small randomized controlled trial from Europe has demonstrated improved clinical outcomes when compared with microfracture. Data regarding the long-term viability of the transplanted osteochondral hyaline cartilage is also limited. However, controlled studies demonstrate similar benefit to other cartilage resurfacing procedures in appropriately selected patients, and a number of uncontrolled studies indicate that osteochondral autografts can improve symptoms in some patients with lesions of the femoral condyle who have failed prior surgical treatment. These patients have limited options. Therefore, based on the clinical input received and additional literature reviewed, it is concluded that osteochondral autografts may be considered an option for symptomatic full thickness chondral lesions of the femoral condyle caused by acute or repetitive trauma in patients who have had an inadequate response to a prior arthroscopic or other surgical repair procedure. Evidence is currently insufficient to evaluate the efficacy of osteochondral autografts in comparison with other surgical repair procedures as a primary treatment of small lesions, or to evaluate the efficacy of osteochondral autografts for joints other than the knee. Questions also remain about the natural history of asymptomatic lesions found incidentally during other surgical procedures. Additional controlled trials with longer follow-up are needed to demonstrate that use of osteochondral autografts as a primary treatment results in improved clinical outcomes in comparison with traditional marrow-stimulating procedures.

4.0 When the Procedure, Product, or Service Is Not Covered

4.1 General Criteria

Procedures, products, and services related to this policy are not covered when

- a. the recipient does not meet the eligibility requirements listed in **Section 2.0**;
- b. the recipient does not meet the medical necessity criteria listed in **Section 3.0**;
- c. the procedure, product, or service unnecessarily duplicates another provider's procedure, product, or service; or
- d. the procedure, product, or service is experimental or investigational.

4.2 Specific Criteria

Osteochondral allografting or autografting for all other joints, including patellar and talar, and any indications other than those listed in **Subsection 3.2**, is considered investigational and not covered.

5.0 Requirements for and Limitations on Coverage

5.1 Prior Approval

Prior Approval is not required for Osteochondral Grafting in Treatment of Articular Cartilage Lesions.

6.0 Providers Eligible to Bill for the Procedure, Product, or Service

To be eligible to bill for procedures, products, and services related to this policy, providers shall

- a. meet NCHC qualifications for participation;
- b. be currently enrolled with NCHC; **AND**
- c. bill only for procedures, products, and services that are within the scope of their clinical practice, as defined by the appropriate licensing entity.

7.0 Additional Requirements

7.1 Compliance

Providers must comply with all applicable federal, state, and local laws and regulations, including the Health Insurance Portability and Accountability Act (HIPAA) and record retention requirements.

8.0 Policy Implementation/Revision Information

Original Effective Date: July 1, 2010

Revision Information:

Date	Section Revised	Change
July 1, 2010	Throughout	Policy Conversion: Implementation of Session Law 2009-451, Section 10.32 “NC HEALTH CHOICE/PROCEDURES FOR CHANGING MEDICAL POLICY.”
February 29, 2012	Throughout	Policy Termination

Attachment A: Claims-Related Information

Reimbursement requires compliance with all NCHC guidelines.

A. Claim Type

Professional (CMS-1500/837P transaction)

Institutional (UB-04/837I transaction)

B. Diagnosis Codes

Providers must bill the ICD-9-CM diagnosis codes(s) to the highest level of specificity that supports medical necessity.

C. Procedure Code(s)

CPT Codes
27415
27416
29866
29867

D. Modifiers

Providers are required to follow applicable modifier guidelines.

E. Billing Units

The appropriate procedure code(s) used determines the billing unit(s)

F. Place of Service

Inpatient Hospital

G. Co-payments

Co-payment(s) may apply to covered prescription drugs and services.

H. Reimbursement

Providers must bill their usual and customary charges.