Definitions of Decision Determinations

**Medically Necessary:** A treatment, procedure or drug is medically necessary only when it has been established as safe and effective for the particular symptoms or diagnosis, is not investigational or experimental, is not being provided primarily for the convenience of the patient or the provider, and is provided at the most appropriate level to treat the condition.

**Investigational/Experimental:** A treatment, procedure or drug is investigational when it has not been recognized as safe and effective for use in treating the particular condition in accordance with generally accepted professional medical standards. This includes services where approval by the federal or state governmental is required prior to use, but has not yet been granted.

**Split Evaluation:** Blue Shield of California / Blue Shield of California Life & Health Insurance Company (Blue Shield) policy review can result in a Split Evaluation, where a treatment, procedure or drug will be considered to be investigational for certain indications or conditions, but will be deemed safe and effective for other indications or conditions, and therefore potentially medically necessary in those instances.

**Description**

Osteochondral autografts and allografts are used in repair of full-thickness chondral defects involving the joint. In the case of autografts, one or more small osteochondral plugs are
harvested from non-weight-bearing sites in the knee and press fit into a prepared site in the lesion. Allografts are typically used for larger lesions to reduce donor site morbidity.

**Policy**

Osteochondral allografting may be considered *medically necessary* for the treatment of cartilage defects of the knee when all of the following have been met:

- As a technique to repair large (e.g., 10 cm²) full-thickness chondral defects of the knee caused by acute or repetitive trauma (See Policy Guideline)
- Inadequate response to prior surgical procedure
- Adolescent patients should be skeletally mature with documented closure of growth plates (e.g., 15 years or older)
- Adult patients should be too young to be considered an appropriate candidate for total knee arthroplasty or other reconstruction knee surgery (e.g., younger than 55 years)
- 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
- Normal knee biometrics or alignment and stability achieved concurrent with grafting

Osteochondral allografting for all other joints is considered *investigational*.

Osteochondral autografting, using one or more cores of osteochondral tissue, may be considered *medically necessary* for the treatment of cartilage defects of the knee when all of the following have been met:

- Cartilage defects caused by acute or repetitive trauma of the knee
- Inadequate response to prior surgical procedure
- Adolescent patients should be skeletally mature with documented closure of growth plates (e.g., 15 years or older)
- Adult patients should be too young to be considered an appropriate candidate for total knee arthroplasty or other reconstruction knee surgery (e.g., younger than 55 years)
- Focal, full-thickness (grade III or IV) unipolar lesions on the weight-bearing surface of the femoral condyles or trochlea that are between 1 cm² and 2.5 cm² in size
- 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
- Normal knee biometrics, or alignment and stability achieved concurrently with osteochondral grafting

Osteochondral autografting for all other joints, including patellar and talar, and any indications other than those listed above, is considered *investigational*. 

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*Medical Policy: Osteochondral Autografts and Allografts in the Treatment of Focal Articular Cartilage Lesions*

*Original Policy Date: 1/11/2013*

*Effective Date: 1/11/2013*
Policy Guideline

If debridement is the only prior surgical treatment, consideration should be given to marrow-stimulating techniques before osteochondral grafting is performed.

Severe obesity, e.g., body mass index (BMI) greater than 35 kg/m², may affect outcomes due to the increased stress on weight-bearing surfaces of the joint.

Misalignment and instability of the joint are contraindications. Therefore additional procedures, such as repair of ligaments or tendons or creation of an osteotomy for realignment of the joint, may be performed at the same time. In addition, meniscal allograft transplantation may be performed in combination, either concurrently or sequentially, with osteochondral allografting or osteochondral autografting.

If lesions are larger than 2.5cm², osteochondral allografting may be considered.

Outerbridge Classification System

The characterization of cartilage is as follows:

- Grade 0 - normal cartilage
- Grade I - softening with swelling
- Grade II - a partial-thickness defect with fissures on the surface that do not reach subchondral bone or exceed 1.5cm² in diameter
- Grade III - fissuring to the level of subchondral bone in an area with a diameter of more than 1.5 cm²
- Grade IV - subchondral bone exposed

The following CPT codes are specific to these procedures:

- 27415 Osteochondral allograft, knee, open
- 27416 Osteochondral autograft(s), knee, open (e.g., mosaicplasty) (includes harvesting of autograft[s])
- 28446 Open osteochondral autograft, talus (includes obtaining graft[s])
- 29866 Arthroscopy, knee, surgical; osteochondral autograft(s) (e.g., mosaicplasty) (includes harvesting of the autograft [s])
- 29867 Arthroscopy, knee, surgical; osteochondral allograft (e.g., mosaicplasty)

Documentation Required for Clinical Review

- History and physical and/or consultation notes including:
  - Description of the knee structure (articular cartilage defects [including grade] and surrounding articular cartilage degenerative changes
  - Knee biomechanics (i.e., stability and alignment) on physical exam
  - Prior treatment (surgical and non-surgical) and patient response(s)
  - Reason for requested procedure and planned treatment
Post Service

- Operative report(s)

The materials provided to you are guidelines used by this plan to authorize, modify, or deny care for persons with similar illness or conditions. Specific care and treatment may vary depending on individual need and the benefits covered under your contract. These Policies are subject to change as new information becomes available.