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Clinical Appropriateness Guidelines

Musculoskeletal

Appropriate Use Criteria: Joint Surgery

Proprietary

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Description and Application of the Guidelines

The Carelon Clinical Appropriateness Guidelines (hereinafter "the Carelon Clinical Appropriateness Guidelines" or the "Guidelines") are designed to assist providers in making the most appropriate treatment decision for a specific clinical condition for an individual. As used by Carelon, the Guidelines establish objective and evidence-based criteria for medical necessity determinations where possible. In the process, multiple functions are accomplished:

- To establish criteria for when services are medically necessary (i.e., in general, shown to be effective in improving health outcomes and considered the most appropriate level of service)
- To assist the practitioner as an educational tool
- To encourage standardization of medical practice patterns
- To curtail the performance of inappropriate and/or duplicate services
- To advocate for patient safety concerns
- To enhance the quality of health care
- To promote the most efficient and cost-effective use of services

The Carelon guideline development process complies with applicable accreditation standards, including the requirement that the Guidelines be developed with involvement from appropriate providers with current clinical expertise relevant to the Guidelines under review and be based on the most up-to-date clinical principles and best practices. Relevant citations are included in the References section attached to each Guideline. Carelon reviews all of its Guidelines at least annually.

Carelon makes its Guidelines publicly available on its website twenty-four hours a day, seven days a week. Copies of the Carelon Clinical Appropriateness Guidelines are also available upon oral or written request. Although the Guidelines are publicly-available, Carelon considers the Guidelines to be important, proprietary information of Carelon, which cannot be sold, assigned, leased, licensed, reproduced or distributed without the written consent of Carelon.

Carelon applies objective and evidence-based criteria, and takes individual circumstances and the local delivery system into account when determining the medical appropriateness of health care services. The Carelon Guidelines are just guidelines for the provision of specialty health services. These criteria are designed to guide both providers and reviewers to the most appropriate services based on a patient's unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice should be used when applying the Guidelines. Guideline determinations are made based on the information provided at the time of the request. It is expected that medical necessity decisions may change as new information is provided or based on unique aspects of the patient's condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient and for justifying and demonstrating the existence of medical necessity for the requested service. The Guidelines are not a substitute for the experience and judgment of a physician or other health care professionals. Any clinician seeking to apply or consult the Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment.

The Guidelines do not address coverage, benefit or other plan specific issues. Applicable federal and state coverage mandates take precedence over these clinical guidelines. If requested by a health plan, Carelon will review requests based on health plan medical policy/guidelines in lieu of the Carelon Guidelines. Pharmaceuticals, radiotracers, or medical devices used in any of the diagnostic or therapeutic interventions listed in the Guidelines must be FDA approved or conditionally approved for the intended use. However, use of an FDA approved or conditionally approved product does not constitute medical necessity or guarantee reimbursement by the respective health plan.

The Guidelines may also be used by the health plan or by Carelon for purposes of provider education, or to review the medical necessity of services by any provider who has been notified of the need for medical necessity review, due to billing practices or claims that are not consistent with other providers in terms of frequency or some other manner.

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General Clinical Guideline

Clinical Appropriateness Framework

Critical to any finding of clinical appropriateness under the guidelines for a specific diagnostic or therapeutic intervention are the following elements:

- Prior to any intervention, it is essential that the clinician confirm the diagnosis or establish its pretest likelihood based on a complete evaluation of the patient. This includes a history and physical examination and, where applicable, a review of relevant laboratory studies, diagnostic testing, and response to prior therapeutic intervention.
- The anticipated benefit of the recommended intervention should outweigh any potential harms that may result (net benefit).
- Current literature and/or standards of medical practice should support that the recommended intervention offers the greatest net benefit among competing alternatives.
- Based on the clinical evaluation, current literature, and standards of medical practice, there exists a reasonable likelihood that the intervention will change management and/or lead to an improved outcome for the patient.

If these elements are not established with respect to a given request, the determination of appropriateness will most likely require a peer-to-peer conversation to understand the individual and unique facts that would supersede the requirements set forth above. During the peer-to-peer conversation, factors such as patient acuity and setting of service may also be taken into account.

Simultaneous Ordering of Multiple Diagnostic or Therapeutic Interventions

Requests for multiple diagnostic or therapeutic interventions at the same time will often require a peer-to-peer conversation to understand the individual circumstances that support the medical necessity of performing all interventions simultaneously. This is based on the fact that appropriateness of additional intervention is often dependent on the outcome of the initial intervention.

Additionally, either of the following may apply:

- Current literature and/or standards of medical practice support that one of the requested diagnostic or therapeutic interventions is more appropriate in the clinical situation presented; or
- One of the diagnostic or therapeutic interventions requested is more likely to improve patient outcomes based on current literature and/or standards of medical practice.

Repeat Diagnostic Intervention

In general, repeated testing of the same anatomic location for the same indication should be limited to evaluation following an intervention, or when there is a change in clinical status such that additional testing is required to determine next steps in management. At times, it may be necessary to repeat a test using different techniques or protocols to clarify a finding or result of the original study.

Repeated testing for the same indication using the same or similar technology may be subject to additional review or require peer-to-peer conversation in the following scenarios:

- Repeated diagnostic testing at the same facility due to technical issues
- Repeated diagnostic testing requested at a different facility due to provider preference or quality concerns
- Repeated diagnostic testing of the same anatomic area based on persistent symptoms with no clinical change, treatment, or intervention since the previous study

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- Repeated diagnostic testing of the same anatomic area by different providers for the same member over a short period of time

Repeat Therapeutic Intervention

In general, repeated therapeutic intervention in the same anatomic area is considered appropriate when the prior intervention proved effective or beneficial and the expected duration of relief has lapsed. A repeat intervention requested prior to the expected duration of relief is not appropriate unless it can be confirmed that the prior intervention was never administered.

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Shoulder Arthroplasty (Total/Partial/Revision Shoulder Replacement)

Description and Scope

Shoulder arthroplasty includes several procedures to replace components of the shoulder joint, in part or in total, with the goal of improving function and reducing pain. Prosthetic replacement of the humeral head and the glenoid (total arthroplasty) is most commonly performed for joint damage due to osteoarthritis. Total shoulder arthroplasty requires an intact medial glenoid to support the glenoid prosthesis.

Shoulder hemiarthroplasty (partial replacement) may be used to address isolated humeral head pathology (avascular necrosis), some fractures, or as an option for rotator cuff tear arthropathy.

Reverse total shoulder arthroplasty is similar to standard arthroplasty in that both components of the joint are replaced but the ball and socket portions of the joint are reversed, allowing the deltoid muscle to assume partial function of the rotator cuff. This procedure is typically utilized when there is concomitant rotator cuff disease.

This guideline addresses shoulder arthroplasty when performed as an **elective, non-emergent** procedure and not as part of the care of a congenital condition, acute or traumatic event such as fracture (excluding fracture of implant and periprosthetic fracture).

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Clinical notes describing symptom duration and severity, specific functional limitations related to symptoms, and type and duration of all therapeutic measures provided. If conservative management is not appropriate, the reason must be clearly documented.

Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
    - Physical therapy rendered by a qualified provider of physical therapy services
    - Supervised home treatment program that includes **ALL** of the following:
        - Participation in a patient-specific or tailored program
        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record

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- **Complementary conservative treatment requirement** includes **ANY** of the following:
  - Anti-inflammatory medications and analgesics[2]
  - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
  - Intra-articular corticosteroid injection(s)[2]
  - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging reports obtained within the past 12 months describing the degree of cartilage damage as determined by either or both of the following methods:

- X-ray report that utilizes or can be correlated with the Kellgren-Lawrence grading system of osteoarthritis
- MRI report from a radiologist that utilizes or can be correlated with the modified Outerbridge or similar classification system related to articular cartilage injury and osteoarthritis

*See **Appendix** for a description of these grading systems.*

The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Imaging reports should be thorough and describe the presence or absence of subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, avascular necrosis or bone on bone articulations. The degree of joint space narrowing should also be noted.

General Recommendations

Tobacco cessation. Adherence to a tobacco cessation program resulting in abstinence from tobacco for at least 6 weeks prior to surgery is recommended.

Diabetes. It is recommended that a patient with history of diabetes maintain a hemoglobin A1C of 8% or less prior to any joint replacement surgery.

Body mass index (BMI). It is recommended that a patient with a BMI equal to or greater than 40 attempt weight reduction prior to surgery.

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Specific Requirements

ALL of the following conditions must be present regardless of indication for which the procedure is being performed:

- Anticipated level of function should place limited demands on the shoulder joint
- Deltoid muscle must be intact
- Shoulder joint must be anatomically and structurally suited to receive selected implants (i.e., adequate bone stock to allow for firm fixation of implant)

Total Shoulder Arthroplasty

Total shoulder arthroplasty is considered medically necessary for ANY of the following indications:

- Proximal humerus fracture not amenable to internal fixation
- Malignancy involving the glenohumeral joint or surrounding soft tissue
- Advanced joint disease of the shoulder due to osteoarthritis rheumatoid arthritis, avascular necrosis, or post-traumatic arthritis when **ALL** of the following requirements are met:
    - Limited range of motion or crepitus of the glenohumeral joint on physical examination
    - Pain and loss of function of at least 6 months' duration that interferes with daily activities
    - Radiographic evidence of destructive degenerative joint disease as evidenced by 2 or more of the following:
        - Irregular joint surfaces
        - Glenoid sclerosis
        - Osteophyte changes
        - Flattened glenoid
        - Cystic changes in the humeral head
        - Joint space narrowing
    - Failure of conservative management of at least 6 weeks' duration (unless radiographs show Kellgren-Lawence grade 4)

Hemiarthroplasty

Hemiarthroplasty is considered medically necessary for ANY of the following indications:

- Proximal humerus fracture not amenable to internal fixation
- Malignancy involving the glenohumeral joint or surrounding soft tissue
- Advanced joint disease of the shoulder when criteria for total shoulder arthroplasty are met **AND** at least **ONE** of the following conditions is present:
    - Osteonecrosis of the humeral head without glenoid involvement
    - Advanced joint disease due to rotator cuff tear arthropathy
    - Glenoid bone stock inadequate to support a glenoid prosthesis
    - Glenohumeral osteoarthritis with irreparable rotator cuff tear

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Reverse Shoulder Arthroplasty

Reverse shoulder arthroplasty is considered medically necessary for ANY of the following indications:

- Reconstruction after a tumor resection
- Glenohumeral osteoarthritis with irreparable rotator cuff tear
- Glenoid bone stock inadequate to support a glenoid prosthesis
- Failed hemiarthroplasty
- Failed total shoulder arthroplasty with non-repairable rotator cuff
- Shoulder fracture that is not repairable or cannot be reconstructed with other techniques
- Advanced joint disease of the shoulder when criteria for total shoulder arthroplasty are met **AND** the following condition is present:
  - Deficient rotator cuff with limited ability to actively flex the upper extremity to 90 degrees against gravity

Revision or Replacement of a Shoulder Prosthesis

Revision or replacement of a shoulder prosthesis is considered medically necessary for ANY of the following conditions when associated with pain and functional impairment:

- Aseptic loosening of one or more prosthetic components confirmed by imaging
- Fracture of one or more components of the prosthesis confirmed by imaging
- Periprosthetic infection confirmed by gram stain and culture
- Instability of the glenoid or humeral components
- Migration of the humeral head

Contraindications

All arthroplasty procedures

- Active infection of the joint
- Active systemic bacteremia
- Active skin infection (exception recurrent cutaneous staph infections) or open wound within the planned surgical site of the shoulder
- Rapidly progressive neurologic disease
- Intra-articular corticosteroid injection within the past 6 weeks in the joint being replaced

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- Total shoulder arthroplasty or hemiarthroplasty under conditions which would result in excessive stress on the implant including, but not limited to, Charcot joint and paralytic conditions of the shoulder

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Selected References

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3. Khan WS, Longo UG, Ahrens PM, et al. A systematic review of the reverse shoulder replacement in rotator cuff arthropathy, rotator cuff tears, and rheumatoid arthritis. Sports medicine and arthroscopy review. 2011;19(4):366-79.
4. Rasmussen JV. Outcome and risk of revision following shoulder replacement in patients with glenohumeral osteoarthritis. Acta orthopaedica Supplementum. 2014;85(355):1-23.
5. Craig RS, Goodier H, Singh JA, et al. Shoulder replacement surgery for osteoarthritis and rotator cuff tear arthropathy. Cochrane Database Syst Rev. 2020;4:CD012879.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Specific CPT codes for services should be used when available. Nonspecific or not otherwise classified codes may be subject to additional documentation requirements and review.

CPT/HCPCS

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23470	Arthroplasty, glenohumeral joint; hemiarthroplasty
23472	Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (e.g., total shoulder))
23473	Revision of total shoulder arthroplasty, including allograft when performed; humeral or glenoid component
23474	Revision of total shoulder arthroplasty, including allograft when performed; humeral and glenoid component

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Shoulder Arthroscopy and Open Procedures

Description and Scope

Arthroscopy is a surgical procedure in which a small fiberoptic camera is inserted into the joint through a small incision. In addition to allowing the surgeon to visualize the joint, arthroscopy may also be utilized for treatment of a variety of conditions involving the joint structures.

This guideline addresses shoulder arthroscopy and open procedures when performed as an **elective, non-emergent procedure** and not as part of the care of an acute fracture.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Imaging report. The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Conservative management. In the majority of cases, a period of conservative management is appropriate prior to intervention. Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
    - Physical therapy rendered by a qualified provider of physical therapy services
    - Supervised home treatment program that includes **ALL** of the following:
        - Participation in a patient-specific or tailored program
        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:
    - Anti-inflammatory medications and analgesics[2]
    - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
    - Intra-articular corticosteroid injection(s)[2]
    - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

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[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of severity reporting. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Shoulder Arthroscopy

Diagnostic arthroscopy

Diagnostic arthroscopy of the shoulder joint is considered medically necessary for synovial biopsy or tissue harvest (chondrocyte), or when the involved joint meets **ALL** of the following criteria:

- Presence of **ONE** of the following symptoms
  - Significant pain and functional limitation
  - Instability (e.g., giving way, catching, clicking, locking)
  - Limited range of motion
- Presence of **ONE** of the following physical exam findings
  - Limited range of motion
  - Joint swelling
  - Inconclusive specific diagnostic exam maneuvers
  - Local muscle weakness or atrophy
- Inconclusive x-ray and/or advanced imaging studies
- Failure of at least 6 weeks of conservative management

Rotator Cuff Repair

For primary rotator cuff repair, adherence to a tobacco cessation program resulting in abstinence from tobacco for at least 6 weeks prior to surgery is recommended.

Acute full thickness tear

Rotator cuff repair is considered medically necessary for an acute full thickness tear when **ALL** of the following criteria are met:

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- Traumatic injury within the preceding 3 months with no preexisting shoulder pain
- Shoulder pain ≥ 4 on the VAS scale exacerbated by movement
- Weakness of rotator cuff muscle(s) (less than grade 4/5 on manual muscle testing)
- Physical exam demonstrating a positive response to at least **ONE** of the following tests:
  - Neer impingement test
  - Drop arm test
  - Painful arc test full/empty can test
  - Weakness of external rotation
- Advanced imaging confirms features of an acute full thickness tear

Chronic or degenerative full thickness tear

Rotator cuff repair is considered medically necessary for a chronic or degenerative full thickness tear when **ALL** of the following criteria are met:

- Gradual onset of shoulder pain, without a significant traumatic event
- Pain ≥ 4 on the VAS scale which interferes with age-appropriate activities of daily living
- Weakness of rotator cuff muscle(s) (less than grade 4/5 on manual muscle testing)
- Physical exam demonstrating a positive response to at least **ONE** of the following tests:
  - Drop arm test
  - Painful arc test full/empty can test
  - Weakness of external rotation
- Recent advanced imaging confirms features of a degenerative full thickness tear
- Failure of at least 6 weeks of conservative management

Partial thickness tear

Rotator cuff repair is considered medically necessary for a partial thickness tear when **ALL** of the following criteria are met:

- Pain ≥ 4 on the VAS scale which interferes with age-appropriate activities of daily living
- Weakness of rotator cuff muscle(s) (less than grade 4/5 on manual muscle testing)
- Physical exam demonstrating a positive response to at least **ONE** of the following tests:
  - Drop arm test
  - Painful arc test full/empty can test
  - Weakness of external rotation
- Recent advanced imaging confirming a partial thickness tear
- Symptoms present for at least 3 months
- Failure of at least 6 weeks of conservative management

Revision Rotator Cuff Repair

Tobacco cessation requirement: *adherence to a tobacco cessation program resulting in abstinence from tobacco for at least 6 weeks prior to revision surgery is required.*

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Revision rotator cuff repair

Revision rotator cuff repair is considered medically necessary when **ALL** of the following criteria are met:

- Documentation of nicotine-free status for at least 6 weeks prior to surgery
- Shoulder pain ≥ 4 on the VAS scale exacerbated by movement
- Weakness of rotator cuff muscle(s) (less than grade 4/5 on manual muscle testing)
- Recent advanced imaging confirming a full thickness tear
- Failure of at least 12 weeks of conservative management

*See **Contraindications to revision rotator cuff repair**.*

Labrum Repair

Labral tear including superior labral anterior-posterior (SLAP) tears

Labrum repair is considered medically necessary when **ALL** of the following criteria are met:

- Shoulder pain ≥ 4 on the VAS scale which interferes with age-appropriate activities of daily living
- Symptoms aggravated by heavy lifting, pushing, and overhead motion
- Physical exam demonstrating a positive response to at least **ONE** of the following tests:
  - O'Brien (active compression) test
  - Anterior slide test
  - Biceps load test (I and II)
  - Pain provocation test
  - Crank test
  - Jobe relocation test
  - Forced shoulder abduction and elbow flexion test
  - Resisted supination external rotation test
- MRI demonstrating a SLAP lesion consistent with subjective and objective findings
- Failure of at least 12 weeks of conservative management

Other Arthroscopic and Open Procedures

Acromioclavicular arthritis

Partial claviculectomy (includes Mumford procedure) is considered medically necessary when **ALL** of the following criteria are met:

- Pain at the acromioclavicular (AC) joint aggravated by shoulder motion
- Positive cross-arm adduction test
- Tenderness over the acromioclavicular joint
- Imaging findings (x-ray or MRI) consistent with acromioclavicular joint arthritis
  - Moderate to severe degenerative joint disease of the acromioclavicular joint, distal clavicle edema, or osteolysis of the distal clavicle on MRI
  - Moderate to severe acromioclavicular joint arthritis on x-ray

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- Failure of at least 12 weeks of conservative management

Adhesive capsulitis

Arthroscopically assisted lysis of adhesions/capsular release is considered medically necessary for post-traumatic, post-surgical, or idiopathic stiffness of the shoulder when **ALL** of the following criteria are met:

- Shoulder pain ≥ 4 on the VAS scale which interferes with age-appropriate activities of daily living
- Reduced passive range of motion of the affected glenohumeral joint by at least 50% compared to unaffected shoulder
- Failure of at least 6 weeks of conservative management

Manipulation under anesthesia (MUA) is considered medically necessary for post-traumatic, post-surgical, or idiopathic stiffness of the shoulder when **ALL** of the following criteria are met:

- Shoulder pain ≥ 4 on the VAS scale which interferes with age-appropriate activities of daily living
- Reduced passive range of motion of the affected glenohumeral joint by at least 50% compared to unaffected shoulder
- Failure of at least 6 weeks of conservative management

Chronic shoulder instability or laxity

Capsulorrhaphy (Bankart procedure) is considered medically necessary when **ALL** of the following criteria are met:

- History of a shoulder dislocation or recurrent subluxation
- Positive apprehension/relocation test
- Shoulder pain and/or instability which interferes with age-appropriate activities of daily living
- MRI demonstrates at least **ONE** of the following:
  - Bankart/labral lesion
  - Hill-Sachs lesion
  - Capsular tear
- Failure of at least 12 weeks of conservative management (unless has multiple dislocations during management)*

  **Early surgery may be considered for patients with large bone defects or patients under age 35.*

Subacromial impingement syndrome

Subacromial decompression/acromioplasty is considered **not medically necessary** for all indications.

Synovectomy

Synovectomy refers to removal of the synovial lining of the joint when it has become symptomatic due to inflammation, irritation, or pathology. Synovectomy may be performed in a single joint compartment (limited) or multiple compartments (extensive).

Partial or complete synovectomy is considered medically necessary for symptomatic (pain, swelling, limited function) synovitis caused by **ANY** of the following:

- Synovial plica (partial synovectomy)
- Inflammatory arthritides (e.g., rheumatoid arthritis, psoriatic arthritis)
- Crystalline arthropathy (e.g., gout, pseudogout)
- Felty’s syndrome

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- Pigmented villonodular synovitis (PVNS)
- Synovial hemangioma
- Synovial chondromatosis/osteochondromatosis
- Post-traumatic synovitis
- Hemophilic synovitis or arthropathy
- Infection (bacterial or fungal septic arthritis)
- Subacromial bursitis

Debridement

Debridement of discrete structures of the shoulder (e.g., humeral bone, humeral articular cartilage, glenoid bone, glenoid articular cartilage, biceps tendon, biceps anchor complex, labrum, articular capsule, articular side of the rotator cuff, bursal side of the rotator cuff, subacromial bursa, foreign body[ies]) is considered medically necessary when **ALL** of the following criteria are met:

- Shoulder pain unresponsive to 6 weeks of conservative management
- Surgical pathology is confirmed by imaging
- Limited debridement involves no more than 2 discrete structures
- Extensive debridement involves 3 or more discrete structures

Tendinopathy of the long head of the biceps

Biceps tenodesis or tenotomy is considered medically necessary for shoulder pain when **ALL** of the following criteria are met:

- Pain in the front of the shoulder and/or clicking, popping or catching sensation when using the arm and shoulder
- Clinical exam is consistent with long head of biceps pathology (at least **two** of the following: anterior shoulder pain, weakness, tenderness over the biceps groove, pain in the anterior shoulder during resisted supination of the forearm [Yergason test], positive Speed test)
- MRI findings consistent with biceps tendinopathy **OR** when criteria for SLAP tear are met
- Failure of at least 12 weeks of conservative management **OR** at least 6 weeks when criteria for rotator cuff tear are met

Contraindications

Revision rotator cuff repair

- History of a revision surgery
- Rotator cuff arthropathy defined as a combination of arthritis and lack of rotator cuff
- Active infection of the joint
- Active systemic bacteremia
- Active skin infection (exception recurrent cutaneous staph infections) or open wound within the planned surgical site of the shoulder
- Rapidly progressive neurological disease
- Wheelchair bound and/or assistive device dependent

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Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- In-office diagnostic arthroscopy (e.g., mi-eye 2®)
- Synovectomy performed solely for visualization or approach
- For treatment of all rotator cuff tears:
    - Treatment of asymptomatic, full thickness rotator cuff tear
    - Active infection of the joint
    - Active systemic bacteremia
    - Active skin infection (exception recurrent cutaneous staph infections) or open wound within the planned surgical site of the shoulder
    - Rapidly progressive neurological disease
    - Deltoid or rotator cuff paralysis
    - Use of xenografts or biologic scaffold for augmentation or bridging reconstruction
    - Use of platelet rich plasma or other biologics
    - Concomitant subacromial decompression/acromioplasty

Selected References

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17. Washington State Department of Labor and Industries, Shoulder Conditions Diagnosis and Treatment Guideline, (2013) Olympia WA, 28 pgs.

Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Specific CPT codes for services should be used when available. Nonspecific or not otherwise classified codes may be subject to additional documentation requirements and review.

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23000	Removal of subdeltoid calcareous deposit
23020	Capsular contracture release (eg, Sever type procedure)
23105	Arthrotomy; glenohumeral joint, with synovectomy, with or without biopsy
23107	Arthrotomy, glenohumeral joint, with joint exploration, with or without removal of loose or foreign body
23120	Claviculectomy; partial
23130	Acromioplasty or acromionectomy, partial, with or without coracoacromial ligament release
23410	Repair of ruptured musculotendinous cuff (e.g., rotator cuff) open; acute
23412	Repair of ruptured musculotendinous cuff (e.g., rotator cuff) open; chronic
23415	Coracoacromial ligament release, with or without acromioplasty
23420	Reconstruction of complete shoulder (rotator) cuff avulsion, chronic (includes acromioplasty)
23430	Tenodesis of long tendon of biceps
23440	Resection or transplantation of long tendon of biceps
23450	Capsulorrhaphy, anterior; Putti-Platt procedure or Magnuson-type operation
23455	Capsulorrhaphy, anterior; with labral repair (e.g., Bankart procedure)
23460	Capsulorrhaphy, anterior, any type; with bone block
23462	Capsulorrhaphy, anterior, any type; with coracoid process transfer
23465	Capsulorrhaphy, glenohumeral joint, posterior, with or without bone block
23466	Capsulorrhaphy, glenohumeral joint, any type multidirectional instability
23700	Manipulation under anesthesia, shoulder joint, including application of fixation apparatus (dislocation excluded)
29805	Arthroscopy, shoulder, diagnostic, with or without synovial biopsy (separate procedure)
29806	Arthroscopy, shoulder, surgical; capsulorrhaphy
29807	Arthroscopy, shoulder, surgical; repair of SLAP lesion
29819	Arthroscopy, shoulder, surgical; with removal of loose body or foreign body
29820	Arthroscopy, shoulder, surgical; synovectomy, partial
29821	Arthroscopy, shoulder, surgical; synovectomy, complete
29822	Arthroscopy, shoulder, surgical; debridement, limited, 1 or 2 discrete structures (eg, humeral bone, humeral articular cartilage, glenoid bone, glenoid articular cartilage, biceps tendon, biceps anchor complex, labrum, articular capsule, articular side of the rotator cuff, bursal side of the rotator cuff, subacromial bursa, foreign body[ies])
29823	Arthroscopy, shoulder, surgical; debridement, extensive, 3 or more discrete structures (eg, humeral bone, humeral articular cartilage, glenoid bone, glenoid articular cartilage, biceps tendon, biceps anchor complex, labrum,

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	articular capsule, articular side of the rotator cuff, bursal side of the rotator cuff, subacromial bursa, foreign body[ies])
29824	Arthroscopy, shoulder, surgical; distal claviculectomy including distal articular surface
29825	Arthroscopy, shoulder, surgical; with lysis and resection of adhesions, with or without manipulation
29826	Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (i.e., arch) release, when performed (list separately in addition to code for primary procedure)
29827	Arthroscopy, shoulder, surgical; with rotator cuff repair
29828	Arthroscopy, shoulder, surgical; biceps tenodesis

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Hip Arthroplasty (Total/Partial/Revision Hip Replacement)

Description and Scope

Total hip arthroplasty (THA), also referred to as total hip replacement (THR), involves removal of the femoral head and acetabulum and placement of a prosthesis anchored to the bone. Numerous implants composed of various biomaterials have been approved by the U.S. Food and Drug Administration (FDA) for use in hip arthroplasty. The goal of the procedure is long-term pain relief and restoration of function.

Degenerative joint disease, or osteoarthritis, is the most common condition leading to the need for total hip arthroplasty. Other conditions that may also cause significant hip joint damage include neoplasm, femoral fracture, avascular necrosis (osteonecrosis), inflammatory arthritis (e.g., rheumatoid arthritis) and developmental hip dysplasia.

This guideline addresses hip arthroplasty when performed as an **elective, non-emergent** procedure and not as part of the care of an acute fracture (excluding fracture of implant and periprosthetic fracture).

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Clinical notes describing symptom duration and severity, specific functional limitations related to symptoms, and type and duration of all therapeutic measures provided. If conservative management is not appropriate, the reason must be clearly documented.

Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
    - Physical therapy rendered by a qualified provider of physical therapy services
    - Supervised home treatment program that includes **ALL** of the following:
        - Participation in a patient-specific or tailored program
        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:

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- Anti-inflammatory medications and analgesics[2]
- Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
- Intra-articular corticosteroid injection(s)[2]
- Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging reports obtained within the past 12 months describing the degree of cartilage damage as determined by either or both of the following methods:

- X-ray report that utilizes or can be correlated with the Kellgren-Lawrence grading system of osteoarthritis
- MRI report from a radiologist that utilizes or can be correlated with the modified Outerbridge or similar classification system related to articular cartilage injury and osteoarthritis

*See **Appendix** for a description of these grading systems.*

The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Imaging reports should be thorough and describe the presence or absence of subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, avascular necrosis or bone on bone articulations. The degree of joint space narrowing should also be noted.

General Recommendations

Tobacco cessation. Adherence to a tobacco cessation program resulting in abstinence from tobacco for at least 6 weeks prior to surgery is recommended.

Diabetes. It is recommended that a patient with history of diabetes maintain a hemoglobin A1C of 8% or less prior to any joint replacement surgery.

Body mass index (BMI). It is recommended that a patient with a BMI equal to or greater than 40 attempt weight reduction prior to surgery.

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Primary Total Hip Arthroplasty

Primary total hip arthroplasty is considered medically necessary for **ANY** of the following indications:

- Primary and secondary tumors of the proximal femur
- Hip fracture or complications including malunion, nonunion or failed prior fixation
- Failed previous hip fracture fixation
- Avascular necrosis (osteonecrosis) with unresponsive severe pain
- Revision of hip arthrodesis
- Joint damage or destruction due to osteoarthritis, inflammatory disease or other chronic condition when **ALL** of the following requirements have been met:
    - Imaging evidence of significant joint destruction and cartilage loss, defined as Tönnis grade 3, modified Outerbridge grade III - IV, or Kellgren-Lawrence grade 3 - 4
    - Limited range of motion, antalgic gait and disabling pain of at least 3 months' duration
    - Pain with passive internal or external rotation
    - Failure of at least 3 months of non-surgical conservative management (unless radiographs show Kellgren-Lawence grade 4)
    - Functional limitation secondary to hip pathology which interferes with the ability to carry out age-appropriate daily activities

Revision Total Hip Arthroplasty

Revision total hip arthroplasty is considered medically necessary when at least **ONE** of the following conditions is present:

- Aseptic loosening
- Substantial osteolysis of the weight bearing surface
- Progressive soft tissue or bone reaction including symptomatic synovitis
- Component instability, failure, or recall
- Displaced periprosthetic fracture or irreducible dislocation
- Previous removal of prosthesis due to infection or catastrophic failure
- Recurrent disabling pain or significant functional disability that persists despite at least 3 months of conservative management in conjunction with **ANY** of the following:
    - Antalgic or Trendelenburg gait
    - Abnormal findings confirmed by plain radiography or imaging studies such as implant malposition or impingement
    - Leg length inequality
    - Audible noise

Resection Arthroplasty of the Hip

Resection arthroplasty of the hip, femoral head ostectomy, or Girdlestone resection arthroplasty is considered medically necessary when at least **ONE** of the following conditions is present:

- Painful stiff hip after infection (tuberculosis of the hip or otherwise)
- Peri-prosthetic infection

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- Aseptic loosening of the hip
- Recurrent dislocation of the hip
- Failed internal fixation of a femoral neck fracture
- Unsalvageable failed hip replacement

Contraindications

Total hip arthroplasty

- Presence of a skin infection at the surgical site
- Presence of a systemic infection
- Rapidly progressive neurological disease
- Neuropathic joint
- Intra-articular corticosteroid injection within the past 6 weeks in the joint being replaced

Exclusions

Indications for total hip arthroplasty other than those addressed in this guideline are considered **not medically necessary**.

Selected References

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Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

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27120	Acetabuloplasty; (eg, Whitman, Colonna, Haygroves, or cup type)
27122	Acetabuloplasty; resection, femoral head (eg, Girdlestone procedure)
27125	Hemiarthroplasty, hip, partial (eg, femoral stem prosthesis, bipolar arthroplasty)

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27130	Arthroplasty, acetabular and proximal femoral prosthetic replacement (total hip arthroplasty), with or without autograft or allograft
27132	Conversion of previous hip surgery to total hip arthroplasty, with or without autograft or allograft
27134	Revision of total hip arthroplasty; both components, with or without autograft or allograft
27137	Revision of total hip arthroplasty; acetabular component only, with or without autograft or allograft
27138	Revision of total hip arthroplasty; femoral component only, with or without allograft

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Hip Arthroscopy

Description and Scope

Hip arthroscopy is most often utilized in diagnosing and treating conditions of the joint space which impede normal function and result in pain and disability. A more recent application of this procedure is treatment of femoroacetabular impingement syndrome (FAIS), a condition of the hip in which the acetabular rim of the pelvis articulates abnormally with the femoral head. Over time, contact may result in damage to joint cartilage, potentially leading to degenerative joint disease.

Surgical treatment of FAIS may involve an open approach, arthroscopic surgery, or a combination of the two. Components of FAIS surgery include the following:

- Capsular plication
- Capsular repair
- Labral reconstruction
- Iliotibial band windowing
- Trochanteric bursectomy
- Abductor muscle repair
- Iliopsoas tenotomy
- Acetabuloplasty
- Femoroplasty

This guideline addresses hip arthroscopy when performed as an **elective, non-emergent** procedure and not as part of the care of an acute fracture.

Clinical Indications

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Imaging report. The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Conservative management. In the majority of cases, a period of conservative management is appropriate prior to intervention. Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
    - Physical therapy rendered by a qualified provider of physical therapy services
    - Supervised home treatment program that includes **ALL** of the following:
        - Participation in a patient-specific or tailored program

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        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:
    - Anti-inflammatory medications and analgesics[2]
    - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
    - Intra-articular corticosteroid injection(s)[2]
    - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Hip Arthroscopy

Diagnostic arthroscopy

Diagnostic arthroscopy of the hip joint is considered medically necessary for synovial biopsy or tissue harvest (chondrocyte), or when the involved joint meets **ALL** of the following criteria:

- Presence of **ONE** of the following symptoms
    - Significant pain and functional limitation
    - Instability (e.g., giving way, catching, clicking, locking)
    - Limited range of motion
- Presence of **ONE** of the following physical exam findings
    - Limited range of motion
    - Joint swelling

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- Inconclusive specific diagnostic exam maneuvers
- Local muscle weakness or atrophy

- Inconclusive x-ray and/or advanced imaging studies
- Failure of at least 6 weeks of conservative management

Synovectomy/biopsy/removal of loose or foreign body

Any combination of these procedures is considered medically necessary when **EITHER** of the following criteria are met:

- Radiographic evidence of acute, post-traumatic, intra-articular foreign body or displaced fracture fragment
- Hip pain associated with grinding, catching, locking or popping, and **ALL** of the following:
  - Failure of least 3 months of conservative management
  - Exam findings confirming pain with limited range of motion
  - Imaging (x-ray, CT or MRI) which shows synovial proliferation, calcifications, nodularity, inflammation, pannus, or loose body

Arthroscopic treatment of femoroacetabular impingement syndrome (FAIS)

Hip arthroscopy is considered medically necessary for treatment of FAIS when **ALL** of the following criteria are met:

- Moderate to severe hip pain (primarily in the groin) worsened by flexion activities (e.g., squatting or prolonged sitting) that interferes with activities of daily living, which is not explained by another diagnosis.
- Positive impingement sign on clinical examination, defined as pain elicited with 90 degrees of flexion and internal rotation and adduction of the femur, or extension and external rotation)
- Imaging studies (radiographs, MRI or 3D computed tomography) suggesting a diagnosis of FAIS, including cam impingement and/or pincer impingement as evidenced by **ONE** or more of the following:
  - Pistol-grip deformity
  - Femoral head-neck offset with an alpha angle greater than 50 degrees
  - Positive posterior wall sign
  - Acetabular retroversion (over coverage with crossover sign)
  - Coxa profunda or protrusion
  - Damage of the acetabular rim
- Failure of conservative management for a duration of at least 3 months*, including avoidance of hip stretching or any activity that elicits or aggravates symptoms

  ** Less than the full duration of conservative management is permitted in the presence of an alpha angle greater than 65 degrees (a measure of asphericity of the femoral head).*
- High probability of a causal association between the femoroacetabular impingement morphology and damage, e.g., a pistol-grip deformity with a tear of the acetabular labrum and articular cartilage damage in the anterosuperior quadrant

Labral tear

Hip arthroscopy is considered medically necessary for treatment of labral tear when **ALL** of the following criteria are met:

- Moderate to severe hip pain (primarily in the groin) worsened by flexion activities (e.g., squatting or prolonged sitting) that interferes with activities of daily living, which is not explained by another diagnosis

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- Positive impingement sign on clinical examination, defined as pain elicited with 90 degrees of flexion and internal rotation and adduction of the femur, or extension and external rotation
- MRI suggests a labral tear
- Failure of conservative management for a duration of at least 3 months, including avoidance of hip stretching or any activity that elicits or aggravates symptoms
- No evidence of advanced osteoarthritis, defined as Tönnis grade 2 or greater, or joint space of less than 2 mm
- No evidence of severe (Outerbridge grade IV) chondral damage

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- In-office diagnostic arthroscopy (e.g., mi-eye 2®)
- For treatment of femoroacetabular impingement syndrome (FAIS)
    - Shaving or debridement of articular cartilage (chondroplasty), and/or abrasion arthroplasty when not performed in conjunction with FAIS repair
    - The use of capsular plication as the sole treatment of FAIS
    - Capsular plication, capsular repair, labral reconstruction, iliotibial band windowing, trochanteric bursectomy, abductor muscle repair, and/or iliopsoas tenotomy, when performed at the time of any FAIS surgery, would be considered a component of and incidental to the FAIS procedure
    - Evidence of advanced osteoarthritis, defined as Tönnis grade ≥ 2, or joint space narrowing ≤ 2 mm along the lateral/medial sourcil (roof or weight-bearing area of acetabulum)
    - Evidence of severe (Outerbridge grade IV) chondral damage
    - Positive broken Shenton line
    - Inclination Tönnis angle greater than 13-15 degrees

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29860	Arthroscopy, hip, diagnostic with or without synovial biopsy (separate procedure)
29861	Arthroscopy, hip, surgical; with removal of loose body or foreign body
29862	Arthroscopy, hip, surgical; with debridement/shaving of articular cartilage (chondroplasty), abrasion arthroplasty, and/or resection of labrum
29863	Arthroscopy, hip, surgical; with synovectomy
29914	Arthroscopy, hip, surgical; with femoroplasty (i.e., treatment of cam lesion)
29915	Arthroscopy, hip, surgical; with acetabuloplasty (i.e., treatment of pincer lesion)
29916	Arthroscopy, hip, surgical; with labral repair [when repair of the labral tear is associated with FAIS]

Table 1. Quantification of Hip Radiographic Measurements

Measurement, range	Description
Sharp (acetabular) angle	
33° - 38°	Normal
< 32°	Insignificant
39° - 42°	Borderline
> 42°	Dysplastic
Tönnis angle	
−10° to 10°	Normal
>10°	Acetabular dysplasia
< -10°	Pincer lesion
Lateral center edge angle of Wiberg (CEA)	
22°-42°	Normal
< 20°	Dysplastic
≥ 20° and ≤ 25°	Borderline dysplastic
≥ 40°	Overcovered
Arthritis	
< 2 mm joint space	Indicative of arthritis best managed non arthroscopically
Alpha angle	
< 55°	Normal
> 55°	Cam femoroacetabular impingement

Mannava S, Geeslin AG, Frangiamore SJ, et al. Comprehensive Clinical Evaluation of Femoroacetabular Impingement: Part 2, Plain Radiography. Arthrosc Tech. 2017;6(5):e2003-e2009. Published 2017 Oct 30.

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Knee Arthroplasty (Total/Partial/Revision Knee Replacement)

Description and Scope

Total knee arthroplasty (TKA), also referred to as total knee replacement (TKR), involves removal of diseased articular surfaces of the knee, followed by resurfacing with metal and polyethylene prosthetic components. Numerous implants composed of various biomaterials have been approved by the U.S. Food and Drug Administration (FDA) for use in TKA procedures. The goal of the procedure is long-term pain relief and restoration of function.

This guideline addresses TKA, revision TKA, and unicompartmental knee arthroplasty (UKA) performed as **elective, non-emergent** procedures and not as part of the care of a congenital condition, acute or traumatic event such as fracture (excluding periprosthetic fracture).

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Clinical notes describing symptom duration and severity, specific functional limitations related to symptoms, and type and duration of all therapeutic measures provided. If conservative management is not appropriate, the reason must be clearly documented.

Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
    - Physical therapy rendered by a qualified provider of physical therapy services
    - Supervised home treatment program that includes **ALL** of the following:
        - Participation in a patient-specific or tailored program
        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:
    - Anti-inflammatory medications and analgesics[2]
    - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]

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  - Intra-articular corticosteroid injection(s)[2]
  - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Imaging reports obtained within the past 12 months describing the degree of cartilage damage as determined by either or both of the following methods:

- X-ray report that utilizes or can be correlated with the Kellgren-Lawrence grading system of osteoarthritis
- MRI report from a radiologist that utilizes or can be correlated with the modified Outerbridge or similar classification system related to articular cartilage injury and osteoarthritis

*See **Appendix** for a description of these grading systems.*

The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Imaging reports should be thorough and describe the presence or absence of subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, avascular necrosis or bone on bone articulations. The degree of joint space narrowing should also be noted.

General Recommendations

Tobacco cessation. Adherence to a tobacco cessation program resulting in abstinence from tobacco for at least 6 weeks prior to surgery is recommended.

Diabetes. It is recommended that a patient with history of diabetes maintain a hemoglobin A1C of 8% or less prior to any joint replacement surgery.

Body mass index (BMI). It is recommended that a patient with a BMI equal to or greater than 40 attempt weight reduction prior to surgery.

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Total Knee Arthroplasty

Elective total knee arthroplasty is considered medically necessary for EITHER of the following indications:

- Primary or metastatic tumor with limb salvage surgery
- Bicompartmental, tricompartmental, or isolated patellofemoral joint damage or destruction due to osteoarthritis, inflammatory disease or other chronic conditions when **ALL** of the following requirements have been met:
    - Imaging evidence of significant joint destruction and cartilage loss, defined as modified Outerbridge grade III - IV or Kellgren-Lawrence grade 3 - 4
    - Knee arc of motion greater than 50 degrees
    - Failure of at least 3 months of non-surgical conservative management (unless radiographs show Kellgren-Lawence grade 4)
    - Functional limitation secondary to knee pathology which interferes with the ability to carry out age-appropriate daily activities

*See **Contraindications**.*

Unicompartmental Knee Arthroplasty/Partial Knee Replacement

Elective medial or lateral unicompartmental knee arthroplasty (UKA)/partial knee replacement (PKA) is considered medically necessary when ALL of the following requirements are met:

- Osteoarthritis isolated to the medial or lateral knee compartment with no degenerative changes in the opposite compartment
- Intact anterior cruciate ligament
- Less than 15 degrees of correctable varus deformity in both knees

*See **Contraindications** including those specific to **medial or lateral unicompartmental knee arthroplasty**.*

Patellofemoral Arthroplasty

Elective patellofemoral arthroplasty is considered medically necessary when ALL of the following requirements are met:

- **ONE** of the following disease states:
    - Advanced symptomatic primary or secondary isolated patellofemoral osteoarthritis (PFOA)
    - Failed extensor mechanism unloading procedures (e.g., lateral retinacular release, reconstruction of the medal patellar femoral ligament, quadricepsplasty, and bony procedures for realignment involving the tibial tuberosity)
    - Symptomatic patellofemoral cartilage defects greater than 4 cm^2 after a failed cartilage repair procedure, such as autologous chondrocyte implantation (ACI)
- Failure of at least 3 months of non-surgical conservative management
- Functional limitation secondary to knee pathology which interferes with the ability to carry out age-appropriate daily activities

*See **Contraindications** including those specific to **patellofemoral arthroplasty**.*

Primary Hinge Arthroplasty

Primary hinge arthroplasty is considered medically necessary when ONE of the following criteria are met:

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- Global ligament instability
- Severe bone loss or deformity
- Absence or deficit of muscular control
- Tumoral surgery (bone block resection with ligamentous insertions needed)
- Congenital dislocation of knee
- Ankylosis with severe instability after surgical exposition

*See **Contraindications**.*

Revision of Prior Knee Arthroplasty

Revision of prior knee arthroplasty is considered medically necessary when ANY of the following conditions are present:

- Aseptic loosening
- Substantial osteolysis of the distal femur, proximal tibia, or patella
- Progressive soft tissue or bone reaction including bearing surface wear or symptomatic synovitis
- Component instability, malalignment, failure, or recall
- Displaced periprosthetic fracture or irreducible dislocation
- Previous removal of knee prosthesis due to infection or catastrophic failure
- Recurrent disabling pain or significant functional disability that persists despite at least 3 months of conservative therapy in conjunction with **ANY** of the following:
    - Antalgic gait
    - Abnormal findings confirmed by plain radiography or imaging studies such as implant malposition or impingement
    - Knee stiffness

*See **Contraindications**.*

Contraindications

All procedures listed

- Skin infection at the surgical site
- Systemic infection
- Rapidly progressive neurologic disease
- Extensor mechanism deficiency, not amendable to surgical correction
- Neuropathic joint
- Intra-articular corticosteroid injection within the past 6 weeks in the joint being replaced

Medial or lateral unicompartmental knee arthroplasty

- Inflammatory arthritis
- Moderate to severe degenerative changes of the lateral facet of the PF joint when considering medial compartment replacement
- Anterior cruciate ligament deficiency

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- Flexion contracture greater than 15 degrees
- Fixed varus deformity greater than 10 degrees
- Fixed valgus deformity greater than 15 degrees
- Flexion less than 110 degrees
- Previous meniscectomy in other compartment

Patellofemoral arthroplasty

- Tibiofemoral osteoarthritis
- Inflammatory arthritis
- Patellofemoral malalignment
- Knee instability (ligaments and/or menisci injuries)
- Limb malalignment (valgus deformity greater than 8 degrees or varus deformity greater than 5 degrees)
- Fixed flexion contracture greater than 10 degrees

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- Bi-unicompartmental knee arthroplasty (medial and lateral tibiofemoral compartments with absence of patellofemoral osteoarthritis)
- Bicompartmental arthroplasty (e.g., medial and patellofemoral compartments of the knee)
- Focal resurfacing of a single knee joint defect
- Unicompartmental free-floating (unfixed) interpositional device

Selected References

1. American Academy of Orthopaedic Surgeons, Surgical Management of Osteoarthritis of the Knee, (2015) Rosemont IL, 661 pgs.
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Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Specific CPT codes for services should be used when available. Nonspecific or not otherwise classified codes may be subject to additional documentation requirements and review.

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27437	Arthroplasty, patella; without prosthesis
27438	Arthroplasty, patella; with prosthesis

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27440	Arthroplasty, knee; tibial plateau
27441	Arthroplasty, knee, tibial plateau; with debridement and partial synovectomy
27442	Arthroplasty, femoral condyles or tibial plateau(s), knee
27443	Arthroplasty, femoral condyles or tibial plateau(s), knee; with debridement and partial synovectomy
27445	Arthroplasty, knee, hinge prosthesis (eg, Walldius type)
27446	Arthroplasty, knee, condyle and plateau; medial OR lateral compartment
27447	Arthroplasty, knee, condyle and plateau; medial AND lateral compartments with or without patella resurfacing (total knee arthroplasty)
27486	Revision of total knee arthroplasty, with or without allograft; 1 component
27487	Revision of total knee arthroplasty, with or without allograft; femoral and entire tibial component
27488	Removal of prosthesis, including total knee prosthesis, methylmethacrylate with or without insertion of spacer, knee

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Knee Arthroscopy and Open Procedures

Description and Scope

Knee arthroscopy is a surgical procedure in which a fiberoptic camera is inserted into the knee joint through a small incision. In addition to allowing the surgeon to visualize the joint, arthroscopy may also be utilized for treatment of a variety of conditions involving the joint structures.

This guideline addresses knee arthroscopy when performed as an **elective, non-emergent** procedure and not as part of the care of an acute fracture.

Procedures to treat focal articular cartilage defects can be classified as:

1. Palliative (lavage, chondroplasty)
2. Reparative (microfracture, abrasion arthroplasty)
3. Restorative (autologous chondrocyte implantation, osteochondral allograft, or osteochondral autograft)*.

**See Treatment of Osteochondral Defects*

Chondroplasty or debridement is a smoothing or shaving of symptomatic partial-thickness cartilage lesions or chondral flaps (unstable mechanical source of pain).

Microfracture involves drilling multiple holes through the subchondral bone to promote bleeding and fibrocartilage growth.

Abrasion arthroplasty involves abrading the subchondral bone to the depth necessary to promote bleeding and fibrocartilage growth.

Both microfracture and abrasion arthroplasty are typically performed on lesions less than 4 cm^2.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Imaging report. The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Conservative management. In the majority of cases, a period of conservative management is appropriate prior to intervention. Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
  - Physical therapy rendered by a qualified provider of physical therapy services
  - Supervised home treatment program that includes **ALL** of the following:

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        - Participation in a patient-specific or tailored program
        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:
    - Anti-inflammatory medications and analgesics[2]
    - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
    - Intra-articular corticosteroid injection(s)[2]
    - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Knee Arthroscopy

Diagnostic arthroscopy

Diagnostic arthroscopy of the knee joint is considered medically necessary for synovial biopsy or tissue harvest (chondrocyte), or when the involved joint meets **ALL** of the following criteria:

- Presence of **ONE** of the following symptoms
    - Significant pain and functional limitation
    - Instability (e.g., giving way, catching, clicking, locking)
    - Limited range of motion
- Presence of **ONE** of the following physical exam findings
    - Limited range of motion

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- Joint swelling
- Inconclusive specific diagnostic exam maneuvers
- Local muscle weakness or atrophy

- Inconclusive x-ray and/or advanced imaging studies
- Failure of at least 6 weeks of conservative management

Meniscal repair or meniscectomy

Acute traumatic meniscal tear

Meniscal repair or meniscectomy is considered medically necessary for acute traumatic meniscal tear (sudden onset of joint-line pain associated with significant knee injury) when **ALL** of the following requirements are met:

- Moderate to severe pain associated with functional limitation, which interferes with the ability to carry out age-appropriate daily activities
- Symptoms of catching, locking, or instability
- Physical exam findings of at least **TWO (2)** of the following:
    - Joint swelling or effusion
    - Positive McMurray or Apley test
    - Joint line tenderness
    - Reduced range of motion
- Imaging confirms features of an acute meniscal tear (e.g., root avulsion, longitudinal vertical, radial, flap, posterolateral root, bucket handle, posterior horn, and complex tears, or displaced meniscal fragment)

Partial meniscectomy is considered medically necessary for symptomatic tears not amenable to repair, especially when the peripheral meniscal rim is intact.

Meniscal repair is considered medically necessary for symptomatic reducible tears that are peripheral (e.g., near the capsular attachment) and horizontal or longitudinal in nature.

Chronic degenerative meniscal tear

Meniscal repair or meniscectomy is considered medically necessary for chronic degenerative meniscal tear (without any history of significant acute trauma) when **ALL** of the following are present:

- Physical exam findings of at least **TWO (2)** of the following:
    - Joint swelling or effusion
    - Positive McMurray or Apley test
    - Joint line tenderness
    - Reduced range of motion
- Persistent or frequent mechanical symptoms (catching, locking, or instability) or failure of conservative management for at least 3 months
- Imaging demonstrating a meniscal tear consistent with the clinical presentation
- X-ray findings demonstrating no more than moderate osteoarthritis as evidenced by imaging showing **ONE** of the following:
    - Greater than or equal to 50% joint space preservation (mild to moderate)
    - Less than or equal to grade 2 Kellgren-Lawrence
    - Less than or equal to grade III modified Outerbridge changes

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Chondroplasty/debridement

Chondroplasty/debridement is considered medically necessary when **ALL** of the following criteria are met:

- Pain or mechanical symptoms
- Partial thickness cartilage lesion or unstable chondral flap documented by MRI
- Failure to respond to at least a 6-week course of conservative management in the absence of a chondral flap
- Radiographic imaging consistent with Kellgren-Lawrence grade 2 or lower

Abrasion arthroplasty/microfracture (knee including patella)

Abrasion arthroplasty/microfracture (knee including patella) is considered medically necessary when **ALL** of the following lesion and joint criteria are met:

- Absence of “kissing” knee lesions (lesion must be single and involve only one side of the joint)
- Lesion is largely contained with near normal surrounding articular cartilage and articulating cartilage.
- Full-thickness lesion involving a focal, (grade III or IV) isolated defect of the weight-bearing surface
- 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
- Knee joint is stable, with functionally intact menisci (knee) and ligaments, and has normal alignment

Corrective procedures (e.g., ligament or tendon repair, osteotomy for realignment, meniscal allograft transplant or repair) may be performed in combination with, or prior to, abrasion arthroplasty/microfracture.

Debridement/drainage/lavage

Debridement/drainage/lavage is considered medically necessary for **ALL** of the following conditions:

- Rheumatoid arthritis with failure of medical management (DMARDs)
- Septic joint or osteomyelitis
- Septic prosthetic joint
- Postoperative arthrofibrosis with limited range of motion and failure of at least 8 weeks of conservative management

Arthroscopically assisted lysis of adhesions

Arthroscopically assisted lysis of adhesions is considered medically necessary for post-traumatic, post-surgical, or idiopathic stiffness of the knee when **ALL** of the following criteria are met:

- Physical exam demonstrates limited range of motion of the knee, defined as less than 105 degrees of flexion or a flexion contracture greater than 10 degrees
- Range of motion of the knee has failed to improve despite 6 weeks of conservative management
- Failure of prior manipulation under anesthesia or manipulation under anesthesia is planned concurrently

Manipulation under anesthesia

Manipulation under anesthesia (MUA) is considered medically necessary for post-traumatic, post-surgical, or idiopathic stiffness of the knee when **ALL** of the following criteria are met:

- Physical exam demonstrates limited range of motion of the knee defined as less than 105 degrees of flexion or a flexion contracture greater than 10 degrees
- Range of motion of the knee has failed to improve despite 6 weeks of conservative management

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Anterior cruciate ligament reconstruction

Anterior cruciate ligament (ACL) reconstruction is considered medically necessary **when BOTH** of the following criteria are met:

- A diagnosis of ACL tear as established by **EITHER** of the following:
  - Exam findings of a positive anterior drawer sign, pivot shift test or Lachman test
  - Report of CT or MRI which demonstrates an ACL tear
- At least **ONE** of the following scenarios is present:
  - ACL tear occurring in conjunction with a meniscal tear or ligamentous injury (i.e., medial or posterior collateral ligament, posterior cruciate ligament, or posterolateral corner ligamentous injury)
  - The patient is involved in a physically demanding occupation (e.g., firefighter, law enforcement, construction), or regularly engages in activities which include cutting, jumping, and/or pivoting (e.g., skiing, basketball, football)
  - Two (2) weeks of conservative care has been tried and failed (e.g., physical therapy, activity modification, oral analgesics)

Posterior cruciate ligament repair or reconstruction

Posterior cruciate ligament (PCL) repair or reconstruction is considered medically necessary **when BOTH** of the following criteria are met:

- A diagnosis of PCL tear as established by **EITHER** of the following:
  - Exam findings of a positive posterior drawer sign, reversed pivot shift test, or posterior sag sign
  - CT or MRI performed within the past 12 months demonstrating a PCL tear
- Associated ligamentous injuries (i.e., injury to posterolateral corner of the knee, medial collateral ligament tear, ACL tear, avulsion fracture of fibular head or avulsion of the tibia distal to the lateral plateau)

Patellar compression syndrome (lateral patellofemoral impingement)

Lateral retinacular release is considered medically necessary when **ALL** of the following criteria are met:

- Positive lateral patellar tilt established on imaging (axial view)
- Failure of at least 6 months of conservative management
- Radiographic imaging consistent with Kellgren-Lawrence grade 2 or lower patellofemoral osteoarthirits
- At least **ONE** of the following is present:
  - Positive patella glide test
  - Positive patella tilt test
  - Lateral femoral trochlear or lateral patella facet cartilage lesion confirmed by imaging within the past 12 months, when symptoms are consistent with a cartilage defect

Quadricepsplasty

Quadricepsplasty is considered medically necessary for knee extension contracture secondary to prior femur/knee fracture or surgery when **ALL** of the following criteria are met:

- Knee flexion less than 90 degrees
- Failure of at least 12 weeks of conservative management
- Failure of an arthroscopic lysis of adhesions

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Distal realignment procedures

Distal realignment procedures (tibial tubercle transfer) for patellar instability (subluxation/dislocation) is considered medically necessary in skeletally mature patients when **ALL** of the following criteria are met:

- Recurrent patellofemoral instability associated with pain that limits function
- Failure of at least 12 weeks of conservative management that includes physical therapy
- Radiographic imaging consistent with Kellgren-Lawrence grade 2 or lower patellofemoral osteoarthirits
- Presence of at least **ONE** of the following:
  - Tibial tubercle-trochlear groove (TT-TG) distance > 20 mm
  - Patella alta (e.g., Caton-Deschamps index > 1.2)

Medial patellofemoral ligament reconstruction

Medial patellofemoral ligament (MPFL) reconstruction is considered medically necessary when **ALL** of the following criteria are met:

- Recurrent patellofemoral instability associated with pain that limits function
- Failure of at least 12 weeks of conservative management
- Radiographic imaging consistent with Kellgren-Lawrence grade 2 or lower patellofemoral osteoarthirits
- **ONE** of the following are present:
  - Tibial tubercle-trochlear groove (TT-TG) distance < 20 mm
  - Normal trochlear morphophology or Dejour type A dysplasia
  - Absence of patella alta (e.g., Caton-Deschamps index < 1.2)
  - Procedure performed in combination with distal realignment

Plica resection

Plica resection is considered medically necessary when at least **TWO of the following** (5) **are present AND BOTH additional criteria are met**:

- Anteromedial knee joint line pain, especially at the medial femoral condyle
- Audible clicking or snap during knee motion – painful arc 30 to 60 degrees
- Pain with activities: ascending and descending stairs, squatting, rising from a chair, or sitting for extended periods
- Positive Hughston plica test or positive duvet test (duvet between knees for relief)
- Visible or palpable (tender) plica

Additional criteria (BOTH are required)

- Exclusion of other causes of anteromedial knee pain
- Failure of at least 12 weeks of conservative management

Excision of popliteal cyst

Excision of a popliteal cyst is considered medically necessary when the following is present:

- Posterior knee pain ≥ 4 on the VAS scale of at least 8 weeks' duration

Synovectomy

Synovectomy is considered medically necessary for **ANY** of the following conditions:

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- Rheumatoid arthritis or other chronic inflammatory arthropathies with failure of conservative management
- Hemophilic joint disease
- Localized pigmented villonodular synovitis

Repair of osteochondral defect

*See **Treatment of Osteochondral Defects** guideline.*

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- Arthroscopic debridement or lavage for isolated primary diagnosis of osteoarthritis of the knee
- In-office diagnostic arthroscopy (e.g., mi-eye 2®)
- Lateral retinacular release for central or medial tracking of the patella for patellar compression syndrome (lateral patellofemoral impingement)
- Meniscal repair or partial meniscectomy when meniscal tear is associated with Kellgren-Lawrence grade ≥ 3 or modified Outerbridge grade > III osteoarthritis of the knee (exception may be granted for patients under age 40)
- Partial meniscectomy for degenerative tears (horizontal cleavage, intrameniscal linear MRI signal penetrating one or both surfaces of the meniscus) with no associated mechanical symptoms

Selected References

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Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Specific CPT codes for services should be used when available. Nonspecific or not otherwise classified codes may be subject to additional documentation requirements and review.

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27331	Arthrotomy, knee; including joint exploration, biopsy, or removal of loose or foreign bodies
27332	Arthrotomy, with excision of semilunar cartilage (meniscectomy) knee; medial OR lateral
27333	Arthrotomy, with excision of semilunar cartilage (meniscectomy) knee; medial AND lateral
27334	Arthrotomy, with synovectomy, knee; anterior OR posterior
27335	Arthrotomy, with synovectomy, knee; anterior AND posterior including popliteal area
27345	Excision synovial cyst popliteal space
27403	Arthrotomy with meniscus repair, knee
27405	Repair, primary, torn ligament and/or capsule, knee; collateral
27407	Repair, primary, torn ligament and/or capsule, knee; cruciate
27409	Repair, primary, torn ligament and/or capsule, knee; collateral and cruciate ligaments
27418	Anterior tibial tubercleplasty (eg, Maquet type procedure)
27420	Reconstruction of dislocating patella; (eg, Hauser type procedure)
27422	Reconstruction of dislocating patella; with extensor realignment and/or muscle advancement or release (eg, Campbell, Goldwaite type procedure)
27424	Reconstruction of dislocating patella; with patellectomy
27425	Lateral retinacular release, open
27427	Ligamentous reconstruction (augmentation), knee; extra-articular
27428	Ligamentous reconstruction (augmentation), knee; intra-articular (open)
27429	Ligamentous reconstruction (augmentation), knee; intra-articular (open) and extra-articular
27430	Quadricepsplasty (eg, Bennett or Thompson type)
27570	Manipulation of knee joint under general anesthesia (includes application of traction or other fixation devices)
29870	Arthroscopy, knee, diagnostic, with or without synovial biopsy (separate procedure)
29871	Arthroscopy, knee, surgical; for infection, lavage and drainage
29873	Arthroscopy, knee, surgical; with lateral release
29874	Arthroscopy, knee, surgical; for removal of loose body or foreign body (e.g., osteochondritis dissecans fragmentation, chondral fragmentation)
29875	Arthroscopy, knee, surgical; synovectomy, limited (e.g., plica or shelf resection) (separate procedure)
29876	Arthroscopy, knee, surgical; synovectomy, major, 2 or more compartments (e.g., medial or lateral)
29877	Arthroscopy, knee, surgical; debridement/shaving of articular cartilage (chondroplasty)
29879	Arthroscopy, knee, surgical; abrasion arthroplasty (includes chondroplasty where necessary) or multiple drilling or microfracture
29880	Arthroscopy, knee, surgical; with meniscectomy (medial AND lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed
29881	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed
29882	Arthroscopy, knee, surgical; with meniscus repair (medial OR lateral)
29883	Arthroscopy, knee, surgical; with meniscus repair (medial AND lateral)
29884	Arthroscopy, knee, surgical; with lysis of adhesions, with or without manipulation (separate procedure)

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29885	Arthroscopy, knee, surgical; drilling for osteochondritis dissecans with bone grafting, with or without internal fixation (including debridement of base of lesion)
29886	Arthroscopy, knee, surgical; drilling for intact osteochondritis dissecans lesion
29887	Arthroscopy, knee, surgical; drilling for intact osteochondritis dissecans lesion with internal fixation
29888	Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction
29889	Arthroscopically aided posterior cruciate ligament repair/augmentation or reconstruction
G0289	Arthroscopy, knee, surgical, for removal of loose body, foreign body, debridement/shaving of articular cartilage (chondroplasty) at the time of other surgical knee arthroscopy in a different compartment of the same knee

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Meniscal Allograft Transplantation of the Knee

Description

Meniscal allograft transplantation of the knee is a surgical procedure used to restore normal meniscal function by replacing a damaged or absent meniscus with donor cadaver allograft cartilage. The procedure is an option for a subset of patients who have pain or disability attributed to insufficient cushioning and lubrication of the joint.

A significant subset of these patients have undergone one or more procedures to remove portions of the meniscus due to tears or other injury. The goal of the procedure is reduction in pain, prevention of degenerative changes to the cartilage and subchondral bone, and restoration of the mechanical properties of the knee joint.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Operative report of a prior arthroscopic procedure and/or MRI of the knee performed within the past 12 months. The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
  - Physical therapy rendered by a qualified provider of physical therapy services
  - Supervised home treatment program which includes flexibility and muscle strengthening exercises that includes **ALL** of the following:
    - Participation in a patient-specific or tailored program
    - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
    - Compliance (documented or by clinician attestation on follow-up evaluation)
  - **Exception to the physical therapy requirement** in unusual circumstances (for instance intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:
  - Anti-inflammatory medications and analgesics[2]
  - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
  - Intra-articular corticosteroid injection(s)[2]

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    - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Meniscal Allograft Transplantation of the Knee

Meniscal allograft transplantation of the knee is considered medically necessary as a treatment for individuals with significant partial (more than 50%) or complete loss of the meniscus, as documented by previous operative reports, MRI, or diagnostic arthroscopy, when **ALL** of the following criteria are met:

- Age 55 or younger and skeletally mature
- Knee pain refractory to conservative treatment
- Ligamentous stability either prior to surgery or achieved concurrently with meniscal transplantation
- Normal alignment without varus or valgus deformities
- Mild to moderate articular damage (Outerbridge grade II or less)

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- Treatment for asymptomatic individuals with partial or complete loss of the meniscus
- Use of other meniscal implants incorporating materials such as collagen and polyurethane

Selected References

1. American Academy of Orthopaedic Surgeons, Appropriate use criteria for the treatment of anterior cruciate ligament injuries, (2015) Rosemont IL, 35 pgs.
2. Beaufils P, Hulet C, Dhenain M, et al. Clinical practice guidelines for the management of meniscal lesions and isolated lesions of the anterior cruciate ligament of the knee in adults. Orthopaedics & traumatology, surgery & research : OTSR. 2009;95(6):437-42.

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Codes

The following code list is not meant to be all-inclusive. Authorization requirements will vary by health plan. Please consult the applicable health plan for guidance on specific procedure codes.

Specific CPT codes for services should be used when available. Nonspecific or not otherwise classified codes may be subject to additional documentation requirements and review.

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29868	Arthroscopy, knee, surgical; meniscal transplantation (includes arthrotomy for meniscal insertion), medial or lateral
G0428	Collagen meniscus implant procedure for filling meniscal defects (e.g., CMI, collagen scaffold, Menaflex)

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Treatment of Osteochondral Defects

Description and Scope

Articular cartilage lesions in weight-bearing joints often fail to heal spontaneously and may be associated with pain, loss of function, and long-term complications such as osteoarthritis. A number of surgical techniques have been developed to treat these lesions, but an established therapy with long-term efficacy remains elusive.

Bone marrow stimulation techniques are the most widely used method to induce an influx of mesenchymal stem cells into the defect. Other techniques involve transplantation of osteochondral tissue from non-weight bearing sites, autologous chrondrocyte transplant, and use of synthetic bone filler material or scaffolds.

This guideline addresses treatment of osteochondral defects of the knee, ankle, and other joints using the following procedures or devices:

- Autologous chondrocyte transplant (ACT)
- Minced cartilage repair
- Osteochondral allograft
- Osteochondral autograft (OATS/mosaicplasty)
- Resorbable synthetic bone filler materials
- Microfracture

Abrasion arthroplasty involves abrading the subchondral bone to the depth necessary to promote bleeding and fibrocartilage growth.

Both microfracture and abrasion arthroplasty are typically performed on lesions less than 4 cm^2.

Clinical Indications

The following general requirements apply to all indications except where they differ from the specific requirements. The specific requirements take precedence over any stated general requirement.

General Information

The terms in the section provide operational definitions when they are referenced as requirements in the guideline.

Documentation supporting medical necessity should be submitted at the time of the request and must include the following components:

Operative report of a prior arthroscopic procedure and/or MRI of the knee performed within the past 12 months. The provider shall submit a detailed and specific imaging report that correlates with clinical findings of the requested procedure. In the absence of the detailed report, the provider will be required to submit a report from an independent radiologist. The results of all imaging studies should correlate with the clinical findings in support of the requested procedure.

Conservative management[1] should include a combination of strategies to reduce inflammation, alleviate pain, and correct underlying dysfunction, including physical therapy **AND** at least **ONE** complementary conservative treatment strategy.

- **Physical therapy requirement** includes **ANY** of the following:
  - Physical therapy rendered by a qualified provider of physical therapy services
  - Supervised home treatment program that includes **ALL** of the following:

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        - Participation in a patient-specific or tailored program
        - Initial active instruction by MD/DO/PT with redemonstration of patient ability to perform exercises
        - Compliance (documented or by clinician attestation on follow-up evaluation)
    - **Exception to the physical therapy requirement** in unusual circumstances (for instance, intractable pain so severe that physical therapy is not possible) when clearly documented in the medical record
- **Complementary conservative treatment requirement** includes **ANY** of the following:
    - Anti-inflammatory medications and analgesics[2]
    - Adjunctive medications such as nerve membrane stabilizers or muscle relaxants[2]
    - Intra-articular corticosteroid injection(s)[2]
    - Alternative therapies such as activity modification, and/or a trial period of rest (e.g., from the aggravating/contributing factors), where applicable

[1] Additional condition or procedure-specific requirements may apply and can be found in the respective sections of the guideline.

[2] In the absence of contraindications

Clinical reevaluation. In most cases, reevaluation should include a physical examination. Direct contact by other methods, such as telephone communication or electronic messaging, may substitute for in-person evaluation when circumstances preclude an office visit.

Failure of conservative management requires **ALL** of the following:

- Patient has completed a full course of conservative management (as defined above) for the current episode of care
- Worsening of or no significant improvement in signs and/or symptoms upon clinical reevaluation
- More invasive forms of therapy are being considered

Documentation of compliance with a plan of therapy that includes elements from these areas is required where conservative management is appropriate.

Reporting of symptom severity. Severity of pain and its associated impact on activities of daily living (ADLs) and instrumental ADLs (IADLs) are key factors in determining the need for intervention. For purposes of this guideline, significant pain and functional impairment refer to pain rated at least 3 out of 10 in intensity and associated with inability to perform at least two (2) ADLs and/or IADLs.

Patient Selection Requirements

Candidates for procedures included in this guideline must meet **ALL** of the following requirements:

- Skeletal maturity as documented by closure of growth plates
- Disabling localized knee or ankle pain for at least 3 months, which has failed to respond to conservative treatment
- Absence of localized or systemic infection
- No history of cancer in the bones, cartilage, fat or muscle of the affected limb
- Willingness and ability to comply with post-operative weight-bearing restrictions and rehabilitation

ALL of the following lesion and joint characteristics must be present:

- Lesion is discrete, single, and involves only one side of the joint
- Lesion is largely contained with near normal surrounding articular cartilage and articulating cartilage

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- Joint space is normal without evidence of inflammation or degenerative changes
- Knee or ankle joint is stable with functionally intact menisci (knee) and ligaments, and normal alignment

Corrective procedures (e.g., ligament or tendon repair, osteotomy for realignment, meniscal allograft transplant or repair) may be performed in combination with, or prior to, transplantation.

Osteochondral Allograft Transplantation

Cartilaginous defects of the knee

Osteochondral allograft transplantation to treat cartilaginous defects of the knee is considered medically necessary when **BOTH** of the following criteria are met:

- Size of the cartilage defect is greater than or equal to 2 cm^2 in total area, as documented by MRI or arthroscopy
- Condition involves a focal, full thickness, (grade III or IV) isolated defect of the weight-bearing surface of the medial or lateral femoral condyles or trochlear region (trochlear groove of the femur)

Cartilaginous defects of the talus

Osteochondral allograft transplantation to treat cartilaginous defects of the talus is considered medically necessary when **EITHER** of the following criteria are met:

- Large (area > 1.5 cm^2) or cystic (volume > 3.0 cm^3) osteochondral lesions of the talus when autografting would be inadequate due to lesion size, depth, or location
- Revision surgery after failed prior marrow stimulation for large (area > 1.5 cm^2) or cystic (volume > 3.0 cm^3) osteochondral lesions of the talus when autografting would be inadequate due to lesion size, depth, or location

Osteochondral Autograft Transplantation

Cartilaginous defects of the knee

Osteochondral autograft transplantation or microfracture, either osteochondral autograft transplant (OAT) or autologous mosaicplasty, is considered medically necessary to treat cartilaginous defects of the knee when **ALL** of the following criteria are met:

- Size of the cartilage defect is between 1.0 cm and 2.5 cm^2 in total area, as documented by MRI or arthroscopy
- Condition involves a focal, full thickness, (grade III or IV) isolated defect of the knee involving the weight bearing surface of the medial or lateral femoral condyles or trochlear region (trochlear groove of the femur)
- Absence of “kissing” knee lesions (lesion must be single and involve only one side of the joint)

Cartilaginous defects of the talus

Osteochondral autograft transplantation or microfracture, either osteochondral autograft transplant (OAT) or autologous mosaicplasty, is considered medically necessary to treat cartilaginous defects of the talus when **EITHER** of the following criteria is met:

- Large (area > 1.5 cm^2) or cystic (volume > 3.0 cm^3) osteochondral lesions of the talus
- Revision surgery after failed marrow stimulation for osteochondral lesions of the talus

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Autologous Chondrocyte Implantation

Cartilaginous defects of the knee/patella

Autologous chondrocyte implantation (ACI) is considered medically necessary to treat cartilaginous defects of the knee/patella when **ALL** of the following criteria are met:

- Primary chondral defect is present or prior surgical procedure failed to correct the defect
- Size of the cartilage defect is greater than or equal to 1.5 cm^2 in total area, as documented by MRI or arthroscopy
- Condition involves a focal, full thickness, (grade III or IV) isolated unipolar defect of the knee involving the weight bearing surface of the medial or lateral femoral condyles or patellofemoral region (includes trochlear region, trochlear groove, and patella)
- Defect involves only the cartilage and not the subchondral bone. *(**Exception to this requirement**: treatment of osteochondritis dissecans [OCD] associated with a bony defect of 10 mm or less in depth, which has failed prior conservative treatment. OCD lesions associated with a bony lesion greater than 10 mm in depth must also undergo corrective bone grafting).*
- 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 biomechanics or alignment and stability achieved concurrently with autologous chondrocyte implantation (ACI).

Contraindications

All procedures listed

- Known allergy to gentamicin or other aminoglycosides
- Known sensitivity to porcine or bovine cultures
- Severe osteoarthritis of the knee (Kellgren-Lawrence grade 3 or 4)
- Inflammatory arthritis, inflammatory joint disease, or uncorrected congenital blood coagulation disorders.
- Knee surgery within the previous 6 months (except surgery to procure a biopsy or a concomitant procedure to prepare the knee for a MACI implant)
- Inability to cooperate with a physician-prescribed post-surgical rehabilitation program

Exclusions

Indications other than those addressed in this guideline are considered **not medically necessary** including, but not limited to, the following:

- Use of non-autologous mosaicplasty with resorbable synthetic bone filler materials including, but not limited to, plugs and granules to repair osteochondral defects of the knee or ankle
- Use of minced articular cartilage (whether synthetic, allograft or autograft) to repair osteochondral defects of the knee or ankle
- Use of decellularized osteochondral allograft plugs (e.g., Chondrofix®) or reduced osteochondral allograft discs (e.g., ProChondrix®, Cartiform®) to repair osteochondral defects of the knee or ankle
- Use of autologous chondrocyte implantation (ACI) in joints other than the knee (investigational)

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Codes

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27412	Autologous chondrocyte implantation, knee
27415	Osteochondral allograft, knee, open [when specified as osteochondral allograft]
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)
29867	Arthroscopy, knee, surgical; osteochondral allograft (e.g., mosaicplasty)
29879	Arthroscopy, knee, surgical; abrasion arthroplasty (includes chondroplasty where necessary) or multiple drilling or microfracture
29892	Arthroscopically aided repair of large osteochondritis dissecans lesion, talar dome fracture, or tibial plafond fracture, with or without internal fixation (includes arthroscopy)
J7330	Autologous cultured chondrocytes, implant
S2112	Arthroscopy, knee, surgical for harvesting of cartilage (chondrocyte cells)

Appendix

Kellgren-Lawrence grading system for radiographic assessment of cartilage damage

Grade	Description
0	Normal
1	Doubtful narrowing of joint space and possible osteophytic lipping
2	Definite osteophytes, definite narrowing of joint space
3	Moderate multiple osteophytes, definite narrowing of joint space, some sclerosis and possible deformity of bone contour
4	Large osteophytes, marked narrowing of joint space, severe sclerosis and definite deformity of bone contour

Modified Outerbridge grading system for MRI assessment of cartilage damage

Grade	Description
0	Normal
I	Signal intensity alterations with an intact surface of the articular cartilage compared with the surrounding normal cartilage
II	Partial-thickness defect with fissures on the surface that do not reach subchondral bone or exceed 1.5 cm in diameter
III	Fissuring to the level of subchondral bone in an area with a diameter more than 1.5 cm
IV	Exposed subchondral bone head

Tönnis grading system for radiographic assessment of osteoarthritis

Grade	Description
0	No signs of osteoarthritis
1	Mild: increased sclerosis, slight narrowing of the joint space, no or slight loss of head sphericity
2	Moderate: small cysts, moderate narrowing of the joint space, and moderate loss of head sphericity
3	Severe: large cysts, severe narrowing or obliteration of the joint space, severe deformity of the head

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History

Status	Review Date	Effective Date	Action
Revised	11/11/2021	09/11/2022	Independent Multispecialty Physician Panel (IMPP) review. For total shoulder arthroplasty, added fracture indication and exception for Kellgren-Lawence grade 4. For hemiarthroplasty, added indications for malignancy of the glenohumeral joint and for glenohumeral arthritis with irreparable rotator cuff tear (exclusion removed). For reverse shoulder arthroplasty, added indication for when glenoid bone stock inadequate to support prosthesis. For labrum repair, removed requirement that SLAP lesion is traumatic on MRI. For adhesive capsulitis, matched requirements in knee arthroscopy; reduced timeframe of conservative management to 6 weeks post-surgery for lysis of adhesions/capsular release and MUA. Added patellofemoral osteoarthritis as an indication for total knee arthroplasty. For knee arthroscopy, new indication for abrasion arthroplasty/microfracture; removed 12-week post-surgery requirement for MUA and arthroscopically assisted lysis of adhesions. Added CPT code 27345. Removed BMI from patient criteria in treatment of osteochondral defects. Added contraindications for autologous chondrocyte implantation per MACI package insert. Updated references.
Revised	12/03/2020	09/12/2021	IMPP review. Aligned conservative care definitions across musculoskeletal surgery and extremity imaging guidelines. Added a more rigorous definition of the supervised home PT requirement for cervical and lumbar surgery, and removed cognitive behavioral therapy as a conservative care modality. New indication for diagnostic shoulder, hip, and knee arthroscopy. Removed massive tear as a contraindication for rotator cuff repair. Added recurrent subluxation as a new indication for capsulorrhaphy. Added new criteria and removed foreign body criteria for synovectomy. New indication for debridement. Removed rotator cuff tear as a criterion for tenodesis/tenotomy in select patients. For primary total hip arthroplasty and total knee arthroplasty, added an exception to conservative management for end-stage osteoarthritis. For hip arthroscopy, modified conservative management requirements; added an exception to full conservative management based on alpha angle; removed age as an exclusion for FAIS but further defined radiographic exclusions. For knee arthroplasty, added degenerative change of the patellofemoral joint as a contraindication. For knee arthroscopy, more expansive approach to physical exam findings; aligned with criteria for MUA; added radiographic criteria for distal realignment procedures and MPFL reconstruction. New criteria for plica resection.
Revised	07/08/2020	03/14/2021	IMPP review. For knee arthroscopy and open procedures, added indications for quadricepsplasty, distal realignment procedures for patellar instability (subluxation/dislocation), and medial patellofemoral ligament reconstruction. Added CPT codes 23000, 23020, 27418, 27420, 27422, 27424, and 27430.
Updated	-	01/01/2021	2021 Annual CPT code update: descriptions changed for 23466, 29822, and 29823.
Revised	08/12/2019	05/17/2020	IMPP review. Added steroid injection within the past 6 weeks as a contraindication for shoulder and hip arthroplasty. For shoulder arthroscopy, added exclusions for xenografts, platelet rich plasma, and subacromial decompression, and removed indication for subacromial impingement with rotator cuff tear. Added new labral tear indication for hip arthroscopy. For knee arthroscopy, added new chondroplasty indication, narrowed use of lateral release to lateral compression as a cause for anterior knee pain or chondromalacia patella, added conservative management and advanced osteoarthritis exclusion for patellar compression syndrome. Added CPT codes 27425 and 27570.

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Status	Review Date	Effective Date	Action
Revised	11/28/2018	06/29/2019	IMPP review. All sections: Clarified conservative management options and removed nicotine-free documentation requirement. For shoulder arthroscopy, updated criteria for subacromial impingement syndrome and tendinopathy of the long head of the biceps. New indication for synovectomy/debridement. Added steroid injection exclusion for shoulder, hip, and knee arthroplasty. Updated criteria for primary and revision total hip arthroplasty; new guideline for resection arthroplasty. For hip arthroscopy, expanded appropriate techniques for FAI surgery to include acetabuloplasty and femoroplasty, added radiographic and clinical criteria to include FAIS-related symptoms. New guideline for elective patellofemoral arthroplasty, and added clinical scenarios for revision of prior knee arthroplasty. For knee arthroscopy, changes to meniscal repair/meniscectomy, and new guideline for arthroscopically assisted lysis of adhesions and manipulation under anesthesia. Meniscal allograft transplantation: Added exclusion for collagen meniscal implants. New criteria for talar osteochondral defects, allow patellar surface autologous chondrocyte implantation, and exclude use of decellularized osteochondral allograft plugs and reduced osteochondral allograft discs to repair osteochondral defects. Added CPT codes 27120, 27122, 27437, 27445, 27488, 28446, 29871, and 29892. Added HCPCS code G0428.
Revised	07/11/2018	03/09/2019	IMPP review. Added the General Clinical Guideline.
Updated	–	01/01/2019	2019 Annual CPT and HCPCS code updates: added 23700, G0289, G0428, J7330, and S2112.
Created	07/17/2017	11/01/2017	IMPP review. Original effective date.

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