



CLINICAL GUIDELINES

CMM-314: Hip Surgery- Arthroscopic and Open Procedures Guidelines

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EviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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CMM-314: Hip Surgery-Arthroscopic and Open Procedures

Definitions

General Guidelines

Arthroscopic or Open Procedures for Fracture, Tumor, Infection, or Foreign Body

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Definitions

- **Femoroacetabular Impingement (FAI):** an anatomical mismatch between the head of the femur and the acetabulum resulting in compression of the labrum or articular cartilage during flexion. The mismatch can arise from subtle morphologic alterations in the anatomy or orientation of the ball-and-socket components (for example, a bony prominence at the head-neck junction or acetabular over-coverage) with articular cartilage damage initially occurring from abutment of the femoral neck against the acetabular rim, typically at the anterosuperior aspect of the acetabulum. Although hip joints can possess the morphologic features of FAI without symptoms, FAI may become pathologic with repetitive movement and/or increased force on the hip joint. High-demand activities may also result in pathologic impingement in hips with normal morphology.
 - ◆ It has been proposed that impingement with damage to the labrum and/or acetabulum is a causative factor in the development of hip osteoarthritis, and that as many as half of cases currently categorized as primary osteoarthritis may have an etiology of FAI.
 - ◆ There are two types of FAI that may occur alone or more frequently together: CAM impingement and pincer impingement.
 - **CAM Impingement** is associated with an asymmetric or non-spherical contour of the head or neck of the femur jamming against the acetabulum, resulting in cartilage damage, delamination (detachment from the subchondral bone), and secondary damage to the labrum. Deformity of the head/neck junction that looks like a pistol grip on radiographs is associated with damage to the anterosuperior area of the acetabulum. Symptomatic CAM impingement is found most frequently in young male athletes.
 - **Pincer Impingement** is associated with over-coverage of the acetabulum and is most typically found in women of middle age. In cases of isolated pincer impingement, the labrum is affected primarily and cartilage damage may be limited to a narrow strip of the acetabular cartilage.
- **Non-Surgical Management** (with regard to the treatment of lower extremity joint pain): any provider-directed non-surgical treatment, which has been demonstrated in the scientific literature as efficacious and/or is considered reasonable care in the treatment of lower extremity joint pain. The types of treatment involved can include, but are not limited to, the following: relative rest/activity modification; weight loss; supervised physiotherapy modalities and therapeutic exercises; prescription and non-prescription medications; assistive devices; and/or, intra-articular injections.
- **Tönnis Angle:** the inclination of the weight-bearing portion of the acetabulum.

- **Tönnis Classification System:** a commonly used system to describe the presence of osteoarthritis in the hips on plain X-rays with grading as follows:
 - ◆ **Grade 0:** No signs of osteoarthritis
 - ◆ **Grade 1:** Sclerosis of the joint with slight joint space narrowing and osteophyte formation, and no or slight loss of femoral head sphericity
 - ◆ **Grade 2:** Small cysts in the femoral head or acetabulum with moderate joint space narrowing and moderate loss of femoral head sphericity
 - ◆ **Grade 3:** Large cysts in the femoral head or acetabulum, severe joint space narrowing or obliteration of the joint space, and severe deformity and loss of femoral head sphericity

General Guidelines

Application of Guideline

- The determination of medical necessity for the performance of arthroscopic or open hip surgery is always made on a case-by-case basis.
- For advanced imaging indications for labral tear refer to **MS-24: Hip**
- For advanced imaging indications for femoroacetabular impingement (FAI) refer to **MS-24: Hip**
- For advanced imaging indications for avascular necrosis of the femoral head refer to **MS-4: Avascular Necrosis (AVN)/Osteonecrosis** and **MS-24: Hip**
- For salvage procedures refer to **CMM 313: Hip Replacement/Arthroplasty**

Arthroscopic or Open Procedures for Fracture, Tumor, Infection, or Foreign Body

- Arthroscopic or open hip surgery may be considered **medically necessary** for individuals for whom surgery is being performed for fracture, tumor, deformity, infection, or foreign body that has led to, or will likely lead to, progressive destruction.

Labral Repair or Reconstruction

Labral Repair or Reconstruction Indications

Labral repair or reconstruction to address labral pathology is considered **medically necessary** when **ALL** of the following criteria have been met:

- Imaging shows **BOTH** of the following findings:
 - ◆ An advanced diagnostic study is conclusive for labral pathology amenable to surgical management
 - ◆ Presence of Tönnis Grade 0-1 osteoarthritis

- Physical exam demonstrates findings supporting intra-articular hip pathology with **ANY** of the following positive provocative tests:
 - ◆ Anterior impingement sign (i.e., hip or groin pain with forced hip flexion, adduction, and internal rotation)
 - ◆ FABER test (i.e., hip or groin pain with forced flexion, abduction, and external rotation)
 - ◆ Fitzgerald test (i.e., hip or groin pain with extension, internal rotation, and adduction from forced hip flexion, abduction, and external rotation or with extension, external rotation, and abduction from forced hip flexion, adduction, and internal rotation)
- Subjective symptoms include mechanical symptoms of the hip (e.g., catching, locking, or giving way) associated with groin-dominant hip pain that significantly limits activities
- Failure of provider-directed non-surgical treatment for at least three (3) months duration **AND** which **must include** the following (unless contraindicated):
 - ◆ An image-guided intra-articular hip injection with local anesthetic (with or without corticosteroid) to which there was a positive response (i.e., any degree of pain reduction achieved within 2 weeks after the injection)

Labral Repair or Reconstruction Non-Indications

Not Medically Necessary

- Labral repair or reconstruction is considered **not medically necessary** for **ANY** other indication or condition.
- Labral repair or reconstruction is considered **not medically necessary** if there is presence of Tönnis Grade 2-3 osteoarthritis.

Arthroscopic or Open Hip Surgery for Femoroacetabular Impingement (FAI)

Arthroscopic or Open Hip Surgery for Femoroacetabular Impingement (FAI) Indications

Arthroscopic or open hip surgery for femoroacetabular impingement (FAI) is considered **medically necessary** when **ALL** of the following criteria have been met:

- Imaging shows **BOTH** of the following findings:
 - ◆ Femoroacetabular impingement confirmed on X-ray, MRI, or CT with **ANY** of the following findings:
 - Alpha angle greater than 50 degrees
 - Pistol-grip deformity
 - Decrease of femoral head-neck offset
 - Acetabular retroversion (i.e., crossover sign, ischial spine sign)
 - Coxa profunda
 - ◆ Presence of Tönnis Grade 0-1 osteoarthritis
- Physical exam demonstrates **BOTH** of the following findings:

- ◆ Positive Anterior impingement sign (i.e., groin-dominant hip pain with forced hip flexion, adduction, and internal rotation)
- ◆ Limited passive hip internal rotation
- Symptoms include groin-dominant hip pain that is worsened by flexion (e.g., squatting or prolonged sitting) and that significantly limits activities
- Failure of provider-directed non-surgical treatment for at least three (3) months duration **AND** which **must include** the following (unless contraindicated):
 - ◆ An image-guided intra-articular hip injection with local anesthetic (with or without corticosteroid) to which there was a positive response (i.e., any degree of pain reduction achieved within two (2) weeks after the injection)

Arthroscopic or Open Hip Surgery for Femoroacetabular Impingement (FAI) Non-Indications

Not Medically Necessary

- Arthroscopic or open hip surgery for femoroacetabular impingement (FAI) is considered **not medically necessary** for **ANY** other indication or condition, including **ANY** of the following radiographic findings:
 - ◆ Joint space narrowing < 2mm along the sourcil
 - ◆ Presence of Tönnis Grade 2-3 osteoarthritis
 - ◆ Severe femoral retroversion or anteversion with gait abnormality
 - ◆ Broken Shenton line
 - ◆ Inclination Tönnis angle > 13-15 degrees

Arthroscopic or Open Hip Surgery for Avascular Necrosis (AVN)

Arthroscopic or Open Hip Surgery for Avascular Necrosis (AVN) Indications

Arthroscopic or open hip surgery for avascular necrosis (AVN) of the femoral head is considered **medically necessary** when **ALL** of the following criteria have been met:

- **ONE** of the following hip procedures is planned:
 - ◆ core decompression
 - ◆ varus rotational osteotomy
 - ◆ valgus flexion osteotomy
 - ◆ curettage and bone grafting through the Mont trapdoor technique or the Merel D'Aubigne light bulb technique
 - ◆ free vascularized fibular graft (FVFG)
- **ANY** of the following symptoms or physical exam findings:
 - ◆ Deep pain in groin
 - ◆ Pain associated with movement or weight-bearing
 - ◆ Limited rotation of hip in both extension and flexion
 - ◆ Antalgic gait
 - ◆ Mechanical symptoms of the hip (e.g., catching, locking, or giving way) associated with groin-dominant hip pain that significantly limits activities

- Imaging findings required **based on procedure type**:
 - ◆ For core decompression:
 - MRI or X-ray findings of cystic or sclerotic changes without subchondral fracture of the femoral head (i.e., pre-collapse)
 - ◆ For varus rotational osteotomy:
 - MRI findings of a small lesion in which the lesion can be rotated away from a weight-bearing surface
 - ◆ For valgus flexion osteotomy:
 - MRI findings of anterolateral disease
 - ◆ For curettage and bone grafting through the Mont trapdoor technique or the Merel D'Aubigne light bulb technique:
 - MRI findings of pre-collapse
 - ◆ For free vascularized fibular graft (FVFG):
 - MRI findings of **EITHER** pre-collapse or collapsed avascular necrosis of the femoral head in young individuals with a reversible etiology

Arthroscopic or Open Hip Surgery for Avascular Necrosis (AVN) Non-Indications

Not Medically Necessary

- Arthroscopic or open hip surgery for avascular necrosis (AVN) of the femoral head is considered **not medically necessary** for **ANY** other indication or condition.

Synovectomy

Synovectomy Indications

Synovectomy is considered **medically necessary** when **ALL** of the following criteria have been met:

- MRI or CT arthrogram shows evidence of synovitis
- Presence of **ANY** of the following conditions:
 - ◆ Inflammatory arthritis (i.e., rheumatoid arthritis, gout, pseudogout, psoriatic arthritis)
 - ◆ Pigmented villonodular synovitis (PVNS)
 - ◆ Synovial chondromatosis
 - ◆ Lyme synovitis
 - ◆ Hemochromatosis
 - ◆ Recurrent hemarthrosis (e.g., secondary to sickle cell anemia, bleeding diathesis, hemophilia)
- Physical exam demonstrates **EITHER** of the following findings:
 - ◆ Limited range of motion
 - ◆ Evidence of joint swelling/effusion
- Function-limiting pain (e.g., loss of hip function which interferes with the ability to carry out age-appropriate activities of daily living and/or demands of employment)

- Failure of provider-directed non-surgical management for at least three (3) months duration

Synovectomy Non-Indications

Not Medically Necessary

- Synovectomy is considered **not medically necessary** for **ANY** other indication or condition.

Procedures and Conditions Not Addressed Elsewhere

Procedures and Conditions Not Addressed Elsewhere Indications

- Arthroscopic or open hip surgery is considered **medically necessary** for **ANY** of the following:
 - ◆ Acute fracture of the hip (femoral or acetabular)
 - ◆ Malunion of a previous fracture
 - ◆ Acute or post-traumatic injury in which there is a correlation between physical exam and diagnostic imaging findings confirming a condition which is reasonably suspected of producing the individual's severe pain and limitation in function
 - ◆ Tumor, infection, foreign body, or other deformity (e.g., in conjunction with a periacetabular osteotomy for hip dysplasia) that has led to or will likely lead to progressive destruction
 - ◆ Synovial biopsy
 - ◆ Irrigation and debridement of an intra-articular joint space infection
 - ◆ Removal of a radiographically-confirmed ossification or osteochondral loose body

Procedures and Conditions Not Addressed Elsewhere Non-Indications

Experimental, Investigational, or Unproven (EIU)

- Arthroscopic or open hip surgery is considered **experimental, investigational, or unproven (EIU)** for **ANY** other indication or condition including, but not limited to, the following:
 - ◆ Capsular plication
 - ◆ Anterior inferior iliac spine/subspinous decompression
 - ◆ In-office diagnostic arthroscopy (e.g., Mi-Eye™, VisionScope®)

Codes (CMM-314)

The inclusion of any code in this table does not imply that the code is under management or requires prior authorization. Refer to the applicable health plan for management details. Prior authorization of a code listed in this table is not a guarantee of payment. The Certificate of Coverage or Evidence of Coverage policy outlines the terms and conditions of the member's health insurance policy.

Code	Code Description/Definition
26990	Incision and drainage, pelvis or hip joint area; deep abscess or hematoma
26991	Incision and drainage, pelvis or hip joint area; infected bursa
26992	Incision, bone cortex, pelvis and/or hip joint (e.g., osteomyelitis or bone abscess)
27000	Tenotomy, adductor of hip, percutaneous (separate procedure)
27001	Tenotomy, adductor of hip, open
27003	Tenotomy, adductor, subcutaneous, open, with obturator neurectomy
27005	Tenotomy, hip flexor(s), open (separate procedure)
27006	Tenotomy, abductors and/or extensor(s) of hip, open (separate procedure)
27025	Fasciotomy, hip or thigh, any type
27027	Decompression fasciotomy(ies), pelvic (buttock) compartment(s) (e.g., gluteus medius-minimus, gluteus maximus, iliopsoas, and/or tensor fascia lata muscle), unilateral
27030	Arthrotomy, hip, with drainage (e.g., infection)
27033	Arthrotomy, hip, including exploration or removal of loose or foreign body
27035	Denervation, hip joint, intrapelvic or extrapelvic intra-articular branches of sciatic, femoral, or obturator nerves
27036	Capsulectomy or capsulotomy, hip, with or without excision of heterotropic bone, with release of hip flexor muscles (i.e., gluteous medius, gluteus minimus, tensor fascia latae, rectus femoris, sartorius, iliopsoas.
27040	Biopsy, soft tissue of pelvis and hip area; superficial
27041	Biopsy, soft tissue of pelvis and hip area; deep, subfascial or intramuscular
27043	Excision, tumor, soft tissue of pelvis and hip area, subcutaneous; 3 cm or greater
27045	Excision, tumor, soft tissue of pelvis and hip area, subfascial (e.g., intramuscular); 5 cm or greater
27047	Excision, tumor, soft tissue of pelvis and hip area, subcutaneous; less than 3 cm
27048	Excision, tumor, soft tissue of pelvis and hip area, subfascial (e.g., intramuscular); less than 5 cm
27049	Radical resection of tumor (e.g. sarcoma), soft tissue of pelvis and hip area; less than 5 cm
27050	Arthrotomy, with biopsy; sacroiliac joint
27052	Arthrotomy, with biopsy; hip joint
27054	Arthrotomy, with synovectomy, hip joint
27057	Decompression fasciotomy(ies), pelvic(buttock) compartment(s) (e.g., gluteus medius- minimus, gluteus maximus, iliopsoas, and/or tensor fascia lata muscle) with debridement of nonviable muscle, unilateral

Code	Code Description/Definition
27059	Radical resection of tumor (e.g., sarcoma), soft tissue of pelvis and hip area; 5cm or greater
27060	Excision; ischial bursa
27062	Excision; trochanteric bursa or calcification
27065	Excision of bone cyst or benign tumor, wing of ilium, symphysis pubis, or greater trochanter of femur; superficial, includes autograft, when performed
27066	Excision of bone cyst or benign tumor, wing of ilium, symphysis pubis, or greater trochanter of femur; deep (subfascial), includes autograft, when performed
27067	Excision of bone cyst or benign tumor, wing of ilium, symphysis pubis, or greater trochanter of femur; with autograft requiring separate incision
27070	Partial excision, wing of ilium, symphysis pubis, or greater trochanter of femur, (craterization, saucerization) (e.g., osteomyelitis or bone abscess); superficial
27071	Partial excision, wing of ilium, symphysis pubis, or greater trochanter of femur, (craterization, saucerization) (e.g., osteomyelitis or bone abscess); deep (subfascial or intramuscular)
27075	Radical resection of tumor; wing of ilium, 1 pubic or ischial ramus or symphysis pubis
27076	Radical resection of tumor; ilium, including acetabulum, both pubic rami, or ischium and acetabulum.
27077	Radical resection of tumor; innominate bone, total
27078	Radical resection of tumor; ischial tuberosity and greater trochanter of femur
27080	Coccygectomy, primary
27086	Removal of foreign body, pelvis or hip; subcutaneous tissue
27087	Removal of foreign body, pelvis or hip; deep (subfascial or intramuscular)
27097	Release or recession, hamstring, proximal
27098	Transfer, adductor to ischium
27100	Transfer external oblique muscle to greater trochanter including fascial or tendon extension (graft)
27105	Transfer paraspinal muscle to hip (includes fascial or tendon extension graft)
27110	Transfer iliopsoas; to greater trochanter of femur
27111	Transfer iliopsoas; to femoral neck
27140	Osteotomy and transfer of greater trochanter of femur (separate procedure)
27146	Osteotomy, iliac, acetabular or innominate bone
27147	Osteotomy, iliac, acetabular or innominate bone; with open reduction of hip
27151	Osteotomy, iliac, acetabular or innominate bone; with femoral osteotomy
27156	Osteotomy, iliac, acetabular or innominate bone; with femoral osteotomy and with open reduction of hip
27158	Osteotomy, pelvis, bilateral (e.g., congenital malformation)
27161	Osteotomy, femoral neck (separate procedure)
27165	Osteotomy, intertrochanteric or subtrochanteric including internal or external fixation and/or cast
27170	Bone graft, femoral head, neck, intertrochanteric or subtrochanteric area (includes obtaining bone graft)
27175	Treatment of slipped femoral epiphysis; by traction, without reduction

Code	Code Description/Definition
27176	Treatment of slipped femoral epiphysis; by single or multiple pinning, in situ
27177	Open treatment of slipped femoral epiphysis; single or multiple pinning or bone graft (includes obtaining graft)
27178	Open treatment of slipped femoral epiphysis; closed manipulation with single or multiple pinning
27179	Open treatment of slipped femoral epiphysis; osteoplasty of femoral neck (Heyman type procedure)
27181	Open treatment of slipped femoral epiphysis; osteotomy and internal fixation
27185	Epiphyseal arrest by epiphysiodesis or stapling, greater trochanter of femur
27187	Prophylactic treatment (nailing, pinning, plating or wiring) with or without methylmethacrylate, femoral neck and proximal femur
27299	Unlisted procedure, pelvis or hip joint
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
29999	Unlisted procedure, arthroscopy
S2325	Hip core decompression

Evidence Discussion (CMM-314)

Hip Synovectomy

Indications for synovectomy of the hip can be confirmed by history, symptoms, physical examination, diagnostic studies, and imaging. Risks are increased by the fact that the procedure is more complicated by the anatomy of the hip as compared to that of other commonly operated joints.

Surgical infection, bleeding, joint surface damage, joint stiffness, and damage to neurovascular structures are not uncommon. Besides the usual complications of surgery and anesthesia, extravasation of fluid, extrusion of intra-articular bodies, damage to the blood supply of the femoral head, and capsular instability can occur.

Given the potential possibility for significant complications, proper patient selection per evidence-based guidelines is crucial to minimize the risk benefit ratio and to best ensure patient safety.

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