# Cigna Medical Coverage Policies – Musculoskeletal
# Hip Surgery-Arthroscopic and Open Procedures

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**Instructions for use**

The following coverage policy applies to health benefit plans administered by Cigna. Coverage policies are intended to provide guidance in interpreting certain standard Cigna benefit plans and are used by medical directors and other health care professionals in making medical necessity and other coverage determinations. Please note the terms of a customer's particular benefit plan document may differ significantly from the standard benefit plans upon which these coverage policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a coverage policy.

In the event of a conflict, a customer's benefit plan document always supersedes the information in the coverage policy. In the absence of federal or state coverage mandates, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of:

1. The terms of the applicable benefit plan document in effect on the date of service
2. Any applicable laws and regulations
3. Any relevant collateral source materials including coverage policies
4. The specific facts of the particular situation

Coverage policies relate exclusively to the administration of health benefit plans. Coverage policies are not recommendations for treatment and should never be used as treatment guidelines.

This evidence-based medical coverage policy has been developed by eviCore, Inc. Some information in this coverage policy may not apply to all benefit plans administered by Cigna.

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

## CMM-314.1: Definitions

- **Femoroacetabular Impingement (FAI)** is 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 hip pain, is defined as 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 hip pain. The types of treatment involved can include, but are not limited to, relative rest/activity modification, weight loss, supervised physiotherapy modalities an therapeutic exercises, oral prescription and non-prescription medications, assistive devices (e.g., care, crutches, walker, wheelchair, and/or intra-articular injection [i.e., steroid]).

## CMM-314.2: General Guidelines

- The determination of medical necessity for the performance of arthroscopy or open hip surgery is always made on a case-by-case basis.
- Hip arthroscopic or open procedures may be considered medically necessary for individuals when surgery is being performed for fracture, tumor, infection, or foreign body that has led to or will likely lead to progressive destruction.

## CMM-314.3: Indications

Arthroscopic or open hip surgery is considered **medically necessary** for **ANY** of the following clinical situations:

- 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 examination 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 ossific or osteochondral loose body
- Labral repair or reconstruction to address labral pathology when an individual has **ALL** of the following criteria:
  - Mechanical symptoms of the hip (e.g., catching, locking, or giving way) associated with groin-dominant hip pain that significantly limits activities
  - **ANY** of the following positive provocative tests for intra-articular hip pathology on physical examination:
    - 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)
  - Unresponsive to at least 3 months of provider-directed non-surgical treatment which must include an image-guided diagnostic/therapeutic intra-articular hip injection to which there was not a negative response
  - An advanced diagnostic imaging study confirming labral pathology amenable to surgical management (Refer to **MS-24: Hip** for advanced imaging indications for labral tear)
- Femoroacetabular Impingement (FAI) when an individual has **ALL** of the following criteria:
  - Groin-dominant hip pain that is worsened by flexion (e.g., squatting or prolonged sitting) and significantly limits activities
  - Positive anterior impingement sign (i.e., groin-dominant hip pain with forced hip flexion, adduction, and internal rotation) on physical examination
  - Limited passive hip internal rotation on physical examination

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| **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 |
| This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules. | |

## CMM-314.6: References


1. Barrientos C, Barahona M, Diaz J, et al. Is there a pathological angle angle for hip impingement? A diagnostic test study. J Hip Preserv Sug. 2016; 3(3):223-228.
2. Beall D, Sweet C, Martin H, et al. Imaging findings of femoroacetabular impingement syndrome. Skeletal Radiol. 2005;34(11):691-701.
3. Beck M, Kalhor M, Leunig M, Ganz R. Hip morphology influences the pattern of damage to the acetabular cartilage: femoroacetabular impingement as a cause of early osteoarthritis of the hip. J Bone Joint Surg Br. 2005;87(7):1012-1018.
4. Bedi A, Chen N, Robertson W, Kelly B. The management of labral tears and femoroacetabular impingement of the hip in the young, active patient. Arthroscopy. 2008;24:1135-1145.
5. Bredella M, Stoller D. MR imaging of femoroacetabular impingement. Magn Reson Imaging Clin N Am. 2005;13(4):653-664.
6. Burnett R, Della Rocca G, Prather H, et al. Clinical presentation of patients with tears of the acetabular labrum. Journal of Bone & Joint Surgery - American Volume. 2006; 88(7):1448-1457.
7. Chládek P, Trc T. Femoroacetabular impingement syndrome--pre-arthritis of the hip. Acta Chir Orthop Traumatol Cech. 2007;74(5):354-358.
8. Chughtai M, Piuzzi NS, Khlopas A, et al. An evidence-based guide to the treatment of osteonecrosis of the femoral head. Bone Joint J. 2017;99-B(10):1267-79. doi: 10.1302/0301-620X.99B10.
9. Clohisy J, McClure J. Treatment of anterior femoroacetabular impingement with combined hip arthroscopy and limited anterior decompression. Iowa Orthop J. 2005;25:164-171.
10. Clohisy JC, St. John LC, Schutz AL. Surgical Treatment of Femoroacetabular Impingement: A systemic review of the literature. Clin Orthop Relat Res 468: 555-564.
11. De Sa D, Urquhart N, Philippon M, Y J-E, Simunovic N, Ayeni OR. Alpha angle correction in femoroacetabular impingement. Knee Surg Sports Traumatol Arthosc 22: 812-821.
12. Espinosa N, Beck M, Rothenfluh D, et al. Treatment of femoro-acetabular impingement: Preliminary results of labral refixation. Surgical technique. J Bone Joint Surg Am. 2007;89 Suppl 2 Pt.1:36-53.
13. Espinosa N, Rothenfluh DA Beck M, et al. Treatment of femoro-acetabular impingement: Preliminary results of labral refixation. Journal Bone Joint Surg. 2006;88(5):925-935.
14. Flanum M, Keene J, Blankenbaker D, Desmet A. Arthroscopic treatment of the painful "internal" snapping hip: results of a new endoscopic technique and imaging protocol. American Journal of Sports Medicine. 2007; 35(5):770-779.
15. Ganz R, Gill T, Gautier E, et al. Surgical dislocation of the adult hip: A technique with full access to the femoral head and acetabulum without the risk of avascular necrosis. J Bone Joint Surg (Br). 2001;83(8):1119-1124.
16. Ganz R, Parvizi J, Beck M., et al. Femoroacetabular impingement: a cause for osteoarthritis of the hip. Clin Orthop Relat Res. 2003;417:112-120.
17. Grant AD, Sala DA, Schwarzkopf R. Femoro-acetabular impingement: the diagnosis-a review. J Child Orthop. 2012; 6(1):1-12.
18. Guanche C, Bare A. Arthroscopic treatment of femoroacetabular impingement. Arthroscopy. 2006;22(1):95-106.

19. Gupta A, Redmond JM, Hammarstedt JE, Lindner D, Stake CE, Domb BG. Does obesity affect outcomes after hip arthroscopy? A cohort analysis. J Bone Joint Surg Am. 2015;97(1):16-23.
20. Hananouchi T, Yasui Y, Yamamoto K, Toritsuka Y, Ohzono K. Anterior impingement test for labral lesions has high positive predictive value. Clin Orthop Relat Res 470: 3524-3529.
21. Hoppe DJ, Bozzo A, Karlsson J, et al. Evidence Based Indications for FAI Surgery. In: Evidence Based Strategies for the Diagnosis and Management of Femoroacetabular Impingement, Chapter: 7, Editors: M Philippon, M Safran, J Karlsson, 2016.
22. Ilizaliturri V Jr, Nossa-Barrera J, Acosta-Rodriguez E, Camacho-Galindo J. Arthroscopic treatment of femoroacetabular impingement secondary to pediatric hip disorders. J Bone Joint Surg Br. 2007;89-B(8):1025-30.
23. Ilizaliturri V Jr, Orozco-Rodriguez L, Acosta-Rodríguez E, Camacho-Galindo J. Arthroscopic treatment of cam-type femoroacetabular impingement: preliminary report at 2 years minimum follow-up. J Arthroplasty. 2008;23(2):226-234.
24. Johnston T, Schenker M, Briggs K, Philippon M. Relationship between offset angle alpha and hip chondral injury in femoroacetabular impingement. Arthroscopy. 2008;24(6):669-675.
25. Kakaty DK, Fischer AF, Hosalkar HS, Siebenrock KA, Tannast M. The ischial spine sign: does pelvic tilt and rotation matter? Clin Orthop Relat Res 468(3): 769-774.
26. Kalberer F, Sierra RJ, Madan SS, Ganz R, Leunig M. Ischial spine projection into the pelvis: a new sign for acetabular retroversion. Clin Orthop Relat Res 466(3): 677-683.
27. Kassarjian A, Belzile E. Femoroacetabular impingement: presentation, diagnosis, and management. Semin Musculoskelet Radiol. 2008;12(2):136-145.
28. Kassarjian A, Brisson M, Palmer W. Femoroacetabular impingement. Eur J Radiol. 2007;63(1):29-35.
29. Katz J, Gomoll A. Advances in arthroscopic surgery: Indications and outcomes. Curr Opin Rheumatol. 2007;19(2):106-110.
30. Kelly B, Weiland D, Schenker M, Philippon M. Arthroscopic labral repair in the hip: surgical technique and review of the literature. Arthroscopy. 2005; 21(12):1496-1504.
31. Khan W, Khan M, Alradwan H, et al. Utility of Intra-articular Hip Injections for Femoroacetabular Impingement. Orthop J Sports Med. 2015; 3(9):1-8.
32. Khanduja V, Villar R. The arthroscopic management of femoroacetabular impingement. Knee Surg Sports Traumatol Arthrosc. 2007;15(8):1035-1040.
33. Kim K, Hwang D, Lee C, Kwon S. Influence of femoroacetabular impingement on results of hip arthroscopy in patients with early osteoarthritis. Clin Orthop Relat Res. 2007;456:128-132.
34. Krueger A, Leunig M, Siebenrock K, Beck M. Hip arthroscopy after previous surgical hip dislocation for femoroacetabular impingement. Arthroscopy. 2007;23(12):1285-1289.
35. Larson C, Giveans M. Arthroscopic management of femoroacetabular impingement: Early outcomes measures. Arthroscopy. 2008;24(5):540-546.
36. Larson CM, Givens R, Taylor M. Does arthroscopic FAI correction improve function with radiographic arthritis? Clin Orthop Relat Res 469: 1667-1676
37. Laude F, Boyer T, Nogier A. Anterior femoroacetabular impingement. Joint Bone Spine. 2007;74(2):127-132.
38. Leunig M, Beck M, Kalhor M, et al. Fibrocystic changes at anterosuperior femoral neck: prevalence in hips with femoroacetabular impingement. Radiology. 2005;236(1):237-46.
39. Martin RL, Enseki KR, Dragovitch P, et al. Acetabular Labral Tears of the Hip: Examination and Diagnostic Challenges. J Orthop Sports Phys Ther. 2006; 36(7):503-515.
40. McCarthy J, Lee J. Hip arthroscopy: indications, outcomes, and complications. Instructional Course Lectures. 55:301-8, 2006.
41. MCG - 21st edition - 2017. Org. S-570 for core decompression of the hip.
42. Min BW, Song KS, Cho CH, et al. Untreated Asymptomatic Hips in Patients with Osteonecrosis of the Femoral Head. Clin Orthop Relat Res. 2008; 466:1087-1092.
43. Murphy S, Tannast M, Kim Y, et al. Debridement of the adult hip for femoroacetabular impingement: Indications and preliminary clinical results. Clin Orthopaed Relat Res. 2004;429:178- 181.
44. National Institute for Health and Care Excellence (NICE). Arthroscopic femoro–acetabular surgery for hip impingement syndrome. Interventional Procedure Guidance 213. London, UK: NICE; March 2007b.
45. National Institute for Health and Care Excellence (NICE). Open femoro-acetabular surgery for hip impingement syndrome. Interventional Procedure Guidance 203. London, UK: NICE; January 2011.

46. Parvizi J, Leunig M, Ganz R. Femoroacetabular impingement. J Am Acad Orthop Surg. 2007;15(9):561-70.
47. Pennock AT, Bomar JD, Johnson KP, et. al. Nonoperative Management of Femoroacetabular Impingement. The American Journal of Sports Medicine. 2018;46(14):3415-3422. doi:10.1177/0363546518804805.
48. Peters C, Erickson J. Treatment of femoro-acetabular impingement with surgical dislocation and debridement in young adults. J Bone Joint Surg Am. 2006;88(8):1735-1741.
49. Philippon MJ, Briggs KK, Yen YM, Kuppersmith DA. Outcomes following hip arthroscopy for femoroacetabular impingement with associated chondrolabral dysfunction: minimum two-year followup. J Bone Joint Surg Br 91(1): 16-23.
50. Philippon MJ, Ejnisman L, Ellis HB, Briggs KK (2012) Outcomes 2 to 5 years following hip arthroscopy for femoroacetabular impingement in the patient aged 11 to 16 years. Arthroscopy 28(9), 1255–1261.
51. Pfirrmann C, Mengiardi B, Dora Cet al. Cam and pincer femoroacetabular impingement: characteristic MR arthrographic findings in 50 patients. Radiology. 2006 Sep;240(3):778-785.
52. Philippon M, Maxwell R, Johnston T, et al. Clinical presentation of femoroacetabular impingement. Knee Surg Sports Traumatol Arthrosc. 2007;15(8):1041-1047.
53. Philippon M. New frontiers in hip arthroscopy: the role of arthroscopic hip labral repair and capsulorrhaphy in the treatment of hip disorders. Instructional Course Lectures. 2006a; 55:309-316.
54. Philippon M, Schenker M. A new method for acetabular rim trimming and labral repair. Clin Sports Med. 2006;25(2):293-297.
55. Philippon MJ, Schroder E, Souza BG, Briggs KK. Hip arthroscopy for femoracetabular impingement in adults aged 50 years or older. Arthroscopy 28(1): 59-65.
56. Philippon M, Schenker M. Arthroscopy for the treatment of femoroacetabular impingement in the athlete. Clin Sports Med. 2006;25(2):299-308.
57. Philippon M, Schenker M, Briggs K, Kuppersmith D. Femoroacetabular impingement in 45 professional athletes: associated pathologies and return to sport following arthroscopic decompression. Knee Surg Sports Traumatol Arthrosc. 2007;15(7):908-914.
58. Philippon M, Stubbs A, Schenker M, et al. Arthroscopic management of femoroacetabular impingement: osteoplasty technique and literature review. Am J Sports Med. 2007;35(9):1571- 1580.
59. Philippon M, Yen Y, Briggs K, et al. Early outcomes after hip arthroscopy for femoroacetabular impingement in the athletic adolescent patient: a preliminary report. J Pediatr Orthop. 2008;28(7):705-710.
60. Pulido L, Parvizi J. Femoroacetabular impingement. Semin Musculoskelet Radiol. 2007;11(1):66-72.
61. Robertson W, Kadrmas W, Kelly B. Arthroscopic management of labral tears in the hip: a systematic review of the literature. Clinical Orthopaedics & Related Research. 2007; 455:88-92.
62. Saddat E, Martin SD, Thornhill TS, Brownlee SA, Losina E, Katz JN. Factors Associated with the failure of surgical treatment of femoroacetabular impingement: Review of literature. Am J Sports Med 42: 1487-1495.
63. Sampson T. Arthroscopic treatment of femoroacetabular impingement: A proposed technique with clinical experience. Instr Course Lect. 2006;55:337-346.
64. Sampson T. Arthroscopic Treatment of Femoroacetabular Impingement. Techniques in Orthopaedics. Hip Arthro. 2005; 20(1):56-62.
65. Sampson T. Complications of hip arthroscopy. Clin Sports Med. 2001;20(4):831-835.
66. Scheerlinck T, Dezillie M, Monsaert A, et al. Bipolar versus total hip arthroplasty in the treatment of avascular necrosis of the femoral head in young patients. Hip International. 2002;12(2):142-149.
67. Siebenrock K, Schoeniger R, Ganz R. Anterior femoro-acetabular impingement due to acetabular retroversion. Treatment with periacetabular osteotomy. J Bone Joint Surg (Am). 2003;85-A2:278-286.
68. Stähelin L, Stähelin T, Jolles B, Herzog R. Arthroscopic offset restoration in femoroacetabular cam impingement: accuracy and early clinical outcome. Arthroscopy. 2008;24(1):51-57.
69. Standaert C, Manner P, Herring S. Expert opinion and controversies in musculoskeletal and sports medicine: Femoroacetabular impingement. Arch Phys Med Rehabil. 2008;89(5):890-893.

70. Sutter R, Dietrich TJ, Zingg PO, et al. How Useful Is the Alpha Angle for Discriminating between Symptomatic Patients with Cam-type Femoroacetabular Impingement and Asymptomatic Volunteers? Radiology. 2012; 264(2):514-521.
71. Tanzer M, Noiseux N. Osseous abnormalities and early osteoarthritis: the role of hip impingement. Clin Orthop Relat Res. 2004;(429):170-7.
72. Tijessen M, vanCingel R, Willemsen L, de Visser E. Diagnostics of femoracetabular impingement and labral pathology of the hip: A systematic review of the accuracy and validity of physical tests. Arthroscopy 28(6): 860-871.
73. Zaltz I, Kelly BT, Larson CM, Leunig M, Bedi A. Surgical treatment of femoroacetabular impingement: What are the limits of hip arthroscopy? Arthroscopy 30(1): 99-110.
74. Zebala L, Schoenecker P, Clohisy J. Anterior femoroacetabular impingement: a diverse disease with evolving treatment options. Iowa Orthop J. 2007;27:71-81.