BlueCross BlueShield of Alabama

Name of Blue Advantage Policy:

Surgical Treatment of Femoroacetabular Impingement

Policy #: 421
Latest Review Date: May 2024
Category: Surgery

BACKGROUND:

Blue Advantage *medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:*

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*
   - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
   - *Furnished in a setting appropriate to the patient's medical needs and condition;*
   - *Ordered and furnished by qualified personnel;*
   - *One that meets, but does not exceed, the patient's medical need; and*
   - *At least as beneficial as an existing and available medically appropriate alternative.*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill* ***Original Medicare* *for covered services that are related to* ***clinical trials*** *that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Blue Advantage will treat **open or arthroscopic treatment of femoroacetabular impingement** as a covered benefit when **all** of the following conditions have been met:

Age

- Individuals should be skeletally mature with documented closure of growth plates (e.g., 15 years of older).

Symptoms

- Moderate-to-severe hip pain worsened by flexion activities (e.g., squatting, or prolonged sitting) that significantly limits activities; AND
- Unresponsive to conservative therapy for at least three months (including activity modifications, restriction of athletic pursuits and avoidance of symptomatic motion); AND
- Positive impingement sign on clinical examination (pain elicited with 90 degrees of flexion and internal rotation and adduction of the femur)

Imaging

- Morphology indicative of cam or pincer-type FAI, e.g., pistol-grip deformity, femoral head-neck offset with an alpha angle greater than 50 degrees, a positive wall sign, acetabular retroversion (over-coverage with crossover sign), coxa profunda or protrusion, or damage of the acetabular rim; AND
- High probability of a causal association between the FAI morphology and damage, e.g., a pistol-grip deformity with a tear of the acetabular labrum and articular cartilage damage in the anterosuperior quadrant; AND
- No evidence of advanced osteoarthritis, defined as Tonnis Grade II or III, or joint space of less than 2mm; AND
- No evidence of severe (Outerbridge Grade IV) chondral damage

Blue Advantage will treat **treatment of femoroacetabular impingement in all other situations** as a **non-covered benefit** and as **investigational.**

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Femoroacetabular impingement (FAI) results from localized compression within the joint due to an anatomical mismatch between the head of the femur and the acetabulum. Symptoms of impingement typically occur in young to middle-aged adults prior to the onset of osteoarthritis, but may be present in younger patients with developmental hip disorders. The objective of surgical treatment of FAI is to improve symptoms and reduce further damage to the joint.

Femoroacetabular Impingement

Femoroacetabular impingement arises from an anatomical mismatch between the head of the femur and the acetabulum, causing 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.

Two types of impingement, cam and pincer, may occur alone or, more frequently, together. Cam impingement is associated with an asymmetric or nonspherical contour of the head or neck of the femur jamming against the acetabulum, resulting in cartilage damage and delamination (detachment from the subchondral bone). 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 pinching of the labrum, with pain more typically beginning in women of middle age. In cases of isolated pincer impingement, the damage may be limited to a narrow strip of the acetabular cartilage.

Epidemiologic and radiographic studies have found correlations between hip osteoarthritis (OA) and FAI lesions, supporting the theory that prolonged contact between the anatomically mismatched acetabulum and femur may lead not only to cam and pincer lesions, but eventually to further cartilage damage and subsequent joint deterioration. It is believed that osteoplasty of the impinging bone is needed to protect the cartilage from further damage and to preserve the natural joint. Therefore, if FAI morphology is shown to be an etiology of OA, a strategy to reduce the occurrence of idiopathic hip OA could be early recognition and treatment of FAI before cartilage damage and joint deterioration occurs.

An association between FAI and athletic pubalgia, sometimes called sports hernia, has been proposed. Athletic pubalgia is an umbrella term for a large variety of musculoskeletal injuries involving attachments and/or soft tissue support structures of the pubis.

Surgical Techniques for Treating FAI

A technique for hip dislocation with open osteochondroplasty that preserved the femoral blood supply was reported by Ganz. Visualization of the entire joint with this procedure led to the identification and acceptance of FAI as an etiology of cartilage damage and the possibility of correcting the abnormal femoroacetabular morphology. Open osteochondroplasty of bony abnormalities and treatment of the symptomatic cartilage defect is considered the criterion standard for complex bony abnormalities. However, open osteochondroplasty is invasive, requiring transection of the greater trochanter (separation of the femoral head from the femoral shaft) and dislocation of the hip joint to provide full access to the femoral head and acetabulum. In addition to the general adverse effects of open surgical procedures, open osteochondroplasty with dislocation has been associated with nonunion and neurologic and soft tissue lesions.

Less invasive hip arthroscopy and an arthroscopy-assisted mini-approach were developed by 2004. Arthroscopy requires specially designed instruments and is considered to be more technically difficult due to reduced visibility and limited access to the joint space. Advanced imaging techniques, including computed tomography and fluoroscopy, have been used to improve visualization of the 3-dimensional head/neck morphology during arthroscopy.

Femoroacetabular impingement can also be a source of hip pain and decreased hip internal rotation in the pediatric population. When nonoperative management of FAI in children and adolescents is ineffective, operative procedures may be indicated. Surgical techniques include arthroscopy, open hip dislocation, limited open with arthroscopy, and osteotomy.

Slipped Capital Femoral Epiphysis
Patients with slipped capital femoral epiphysis (SCFE) have a displaced femoral head in relation to the femoral neck within the confines of the acetabulum, which can result in hip pain, thigh pain, knee pain, and onset of a limp. SCFE occurs most frequently in children between the ages of 10 to 16. In a study of patients reaching skeletal maturity after being diagnosed with SCFE, 32% were found to have clinical signs of impingement. It is not uncommon for patients with SCFE to develop premature OA requiring total hip arthroplasty within 20 years.

Treatment
The standard treatment for SCFE is stabilization across the physis by in situ pinning. Alternative treatments proposed for pediatric patients with SCFE-related FAI include osteoplasty without dislocation, or with the open dislocation technique described by Ganz. The Ganz technique (capital realignment with open dislocation) is technically demanding with a steep learning curve and a high risk of complications, including avascular necrosis. Therefore, early treatment to decrease impingement must be weighed against increased risk of adverse events.

KEY POINTS:
The most recent literature update was performed through February 9, 2024.

Summary of Evidence
For individuals who are asymptomatic adults with femoroacetabular impingement who receive FAI surgery, there is no direct evidence that the surgical treatment will prevent the development of OA. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and change in disease status. Indirect evidence consists of observational studies. In retrospective studies of patients with OA, the relevant outcomes were radiographic evidence of hip joint malformations. In prospective studies of patients with FAI, the relevant outcome is progression to OA. Several large observational studies (>1000 patients) as well as smaller studies have shown radiographic evidence of relationships between abnormal hip morphology and the development of OA. There have been no studies in which FAI surgery was performed on patients with FAI morphology but no symptoms. The evidence is insufficient to determine that the technology results in an improvement in the net health outcomes.

For individuals who are adults with symptomatic femoroacetabular impingement who receive FAI surgery, the evidence includes mostly systematic reviews of large and small observational studies and systematic reviews of RCTs. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and change in disease status. Open hip dislocation surgery and arthroscopic surgery are the most common surgical techniques performed on patients with FAI. Systematic reviews have evaluated open hip dislocation surgery and arthroscopic surgery, compared with no comparator, nonsurgical management, and other surgical techniques. Compared with nonsurgical management, all types of surgical techniques have resulted in significant improvements in functional outcomes, pain, and radiographic measurements. The reviews were limited when comparing surgical techniques to each other, because patient characteristics and outcome measurements were heterogeneous among studies. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who are children 15 years of age or younger with symptomatic femoroacetabular impingement who receive FAI surgery, the evidence includes a meta-analysis evaluating small observational studies and individual observational studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and change in disease status. While the studies reported improvements in pain and functional outcomes, the sample sizes were relatively small, ranging between 11 and 116 hips per study. Additionally, comparative studies were not identified. The evidence is insufficient to determine that the technology results in an improvement in the net health outcomes.

For individuals who are children 15 years of age or younger with slipped capital femoral epiphysis associated femoroacetabular impingement who receive surgical treatment, the evidence includes a systematic review and small observational studies (19 to 51 patients). Relevant outcomes include symptoms, functional, health status measures, quality of life, and change in disease status. While most patients experienced symptom relief following FAI surgery, the surgery is invasive and complications such as nonunion were reported. The evidence is insufficient to determine that the technology results in an improvement in the net health outcomes.

For individuals who have residual femoroacetabular impingement symptoms following a primary surgery who receive revision arthroscopic surgery, the evidence includes systematic reviews of observational studies (>400 patients). Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and change in disease status. Though the studies were low quality, consistent improvements in functional outcomes, pain relief, and patient satisfaction were reported- in some cases, beyond 3 years. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

Practice Guidelines and Position Statements

American Academy of Orthopaedic Surgeons

In 2020, the American Academy of Orthopaedic Surgeons published a consensus-based best practice guidelines checklist for preoperative, intraoperative, and postoperative hip arthroscopy considerations in patients with femoroacetabular impingement.

The guidelines define conservative care treatment as a trial of rest, non-steroidal anti-inflammatory drugs, activity modification or restriction, and physical therapy - without concomitant use of opioids. Prior to completion of the full duration of conservative treatment, assessment of the following joint parameters is recommended: high alpha angle, low Tönnis grade, cam or combined impingement, large range of motion limitations with pain, high baseline mental health status, large cam (>65° alpha angle) or combined deformity in absence of osteoarthritis changes. A shorter duration of conservative treatment is permissible in professional or out-of-season athletes, patients completing physical therapy with no or marginal improvement, high baseline mental health status, and/or successful surgery on the contralateral side. Contraindications for hip arthroscopy include: joint space narrowing <2 mm along the sourcil or osteoarthritis, Tönnis grade 2 or higher, severe femoral retroversion or anteversion with gait abnormality, obesity hindering access, broken Shenton line, pain not localizing to the hip or out of proportion due to psychiatric issue, inclination Tönnis angle >13 to 15°, or failed arthroscopy with dysplastic features. Hypermobility (Beighton Hypermobility Score ≥5) is not considered a contraindiction for hip arthroscopy.

National Institute for Health and Care Excellence
In 2011, the U.K.'s National Institute for Health and Clinical Excellence (NICE) issued revised guidance on arthroscopic femoroacetabular surgery for hip impingement syndrome. NICE considers current evidence on the efficacy of arthroscopic femoroacetabular surgery for hip impingement syndrome to be adequate in terms of symptom relief in the short and medium term.

NICE's 2011 guidance on open femoroacetabular surgery for hip impingement syndrome indicated that evidence for this procedure was adequate for symptom relief in the short and medium term.

U.S. Preventive Services Task Force Recommendations
Not applicable.

KEY WORDS:
Femoroacetabular impingement, FAI, Cam-type impingement, pincer-type impingement, femoral osteoplasty, osteochondral osteoplasty, hip arthroscopy, osteoarthritis

APPROVED BY GOVERNING BODIES:
Surgery for treatment of femoroacetabular impingement is a surgical procedure and as such, is not subject to regulation by the U.S. Food and Drug Administration.

BENEFIT APPLICATION:
Coverage is subject to member's specific benefits. Group-specific policy will supersede this policy when applicable.

CURRENT CODING:

CPT Codes:

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

There are no specific CPT codes for the open treatment of FAI. The procedure might be coded using code 27299 (unlisted procedure, pelvis or hip joint).

REFERENCES:

1. Botser IB, Smith TW, Jr., Nasser R et al. Open surgical dislocation versus arthroscopy for femoroacetabular impingement: a comparison of clinical outcomes. Arthroscopy Feb 2011; 27(2):270-278.
2. Casartelli NC, Valenzuela PL, Maffiuletti NA, et al. Effectiveness of Hip Arthroscopy on Treatment of Femoroacetabular Impingement Syndrome: A Meta-Analysis of Randomized Controlled Trials. Arthritis Care Res (Hoboken). Aug 2021; 73(8): 1140-1145.
3. Chiron P, Espie A, Reina N, et al. Surgery for femoroacetabular impingement using a minimally invasive anterolateral approach: analysis of 118 cases at 2.2-year follow-up. Orthop Traumatol Surg Res. Feb 2012; 98(1):30-38.
4. Cvetanovich GL, Harris JD, Erickson BJ, et al. Revision hip arthroscopy: a systematic review of diagnoses, operative findings, and outcomes. Arthroscopy. Jul 2015;31(7):1382-1390.
5. de Sa D, Cargnelli S, Catapano M, et al. Femoroacetabular impingement in skeletally immature patients: a systematic review examining indications, outcomes, and complications of open and arthroscopic treatment. Arthroscopy. Feb 2015; 31(2):373-384.
6. Domb BG, Stake CE, Botser IB et al. Surgical dislocation of the hip versus arthroscopic treatment of femoroacetabular impingement: a prospective matched-pair study with average 2-year follow-up. Arthroscopy Sep 2013; 29(9):1506-1513.
7. Dwyer T, Whelan D, Shah PS et al. Operative Versus Nonoperative Treatment of Femoroacetabular Impingement Syndrome: A Metaanalysis of Short-Term Outcomes. Arthroscopy. Jan 2020;36(1): 263-273.
8. Egger AC, Frangiamore S, Rosneck J. Femoroacetabular Impingement: A Review. Sports Med Arthrosc Rev. Dec 2016; 24(4): e53-e58.
9. Frank JM, Harris JD, Erickson BJ, et al. Prevalence of Femoroacetabular Impingement Imaging Findings in Asymptomatic Volunteers: A Systematic Review. Arthroscopy. Jun 2015; 31(6): 1199-204.

10. Gosvig KK, Jacobsen S, Sonne-Holm S et al. Prevalence of malformations of the hip joint and their relationship to sex, groin pain, and risk of osteoarthritis: a population-based survey. J Bone Joint Surg Am May 2010; 92(5):1162-1169.
11. Grant TM, Diamond LE, Pizzolato C, et al. Comparison of Walking Biomechanics After Physical Therapist-Led Care or Hip Arthroscopy for Femoroacetabular Impingement Syndrome: A Secondary Analysis From a Randomized Controlled Trial. Am J Sports Med. Oct 2022; 50(12): 3198-3209.
12. Griffin DR, Dickenson EJ, Achana F, et al. Arthroscopic hip surgery compared with personalised hip therapy in people over 16 years old with femoroacetabular impingement syndrome: UK FASHIoN RCT. Health Technol Assess. Feb 2022; 26(16): 1-236.
13. Griffin DR, Dickenson EJ, Wall PDH, et al. Hip arthroscopy versus best conservative care for the treatment of femoroacetabular impingement syndrome (UK FASHIoN): a multicenter randomised controlled trial. Lancet. 2018 Jun 2;391(10136):2225-2235.
14. Guindani N, Eberhardt O, Wirth T, et al. Surgical dislocation for pediatric and adolescent hip deformity: clinical and radiographical results at 3 years follow-up. Arch Orthop Trauma Surg. Apr 2017; 137(4):471-479.
15. Gwathmey FW, Jones KS, Thomas Byrd JW. Revision hip arthroscopy: Findings and outcomes. J Hip Preserv Surg. Dec 2017; 4(4):318-323.
16. Harris JD, Erickson BJ, Bush-Joseph CA, et al. Treatment of femoroacetabular impingement: a systematic review. Curr Rev Musculoskelet Med. Sep 2013; 6(3): 207-18.
17. Huang HJ, Zhou X, Huang ZG, et al. Arthroscopic Treatment for Femoroacetabular Impingement Syndrome in Adolescents: A Systematic Review and Meta-Analysis. Clin J Sport Med. Nov 01 2022; 32(6): 608-616.
18. Hunter DJ, Eyles J, Murphy NJ, et al. Multi-centre randomised controlled trial comparing arthroscopic hip surgery to physiotherapist-led care for femoroacetabular impingement (FAI) syndrome on hip cartilage metabolism: the Australian FASHIoN trial. BMC Musculoskelet Disord. Aug 16 2021; 22(1): 697
19. IOM (Institute of Medicine). 2011. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.
20. Jan K, Fenn TW, Kaplan DJ, et al. Patients Maintain Clinically Significant Outcomes at 5-Year Follow-Up After Hip Arthroscopy for Femoroacetabular Impingement Syndrome: A Systematic Review. Arthroscopy. Aug 2023; 39(8): 1869-1881.e1.
21. Kierkegaard S, Langeskov-Christensen M, Lund B, et al. Pain, activities of daily living and sport function at different time points after hip arthroscopy in patients with femoroacetabular impingement: a systematic review with meta-analysis. Br J Sports Med. Apr 2017; 51(7):572-579.
22. Krych AJ, Thompson M, Knutson Z et al. Arthroscopic labral repair versus selective labral debridement in female patients with femoroacetabular impingement: a prospective randomized study. Arthroscopy Jan 2013; 29(1):46-53.

23. Lamo-Espinosa JM, Mariscal G, Gómez-Álvarez J, et al. Efficacy and safety of arthroscopy in femoroacetabular impingement syndrome: a systematic review and meta-analysis of randomized clinical trials. Sci Rep. Oct 01 2023; 13(1): 16493.
24. Lynch TS, Minkara A, Aoki S, et al. Best Practice Guidelines for Hip Arthroscopy in Femoroacetabular Impingement: Results of a Delphi Process. J Am Acad Orthop Surg. Jan 15 2020; 28(2): 81-89.
25. Matsuda DK, Carlisle JC, Arthurs SC et al. Comparative systematic review of the open dislocation, mini-open, and arthroscopic surgeries for femoroacetabular impingement. Arthroscopy Feb 2011; 27(2):252-269.
26. Migliorini F, Maffulli N. Arthroscopic Management of Femoroacetabular Impingement in Adolescents: A Systematic Review. Am J Sports Med. Nov 2021; 49(13): 3708-3715.
27. Minkara AA, Westermann RW, Rosneck J, et al. Systematic review and meta-analysis of outcomes after hip arthroscopy in femoroacetabular impingement. Am J Sports Med. Feb 2019: 47 (2): 488-500.
28. Murphy NJ, Eyles J, Spiers L, et al. Moderators, Mediators, and Prognostic Indicators of Treatment With Hip Arthroscopy or Physical Therapy for Femoroacetabular Impingement Syndrome: Secondary Analyses From the Australian FASHIoN Trial. Am J Sports Med. Jan 2023; 51(1): 141-154.
29. National Institute for Health and Clinical Excellence (NICE). Arthroscopic femoro-acetabular surgery for hip impingement syndrome. (IPG 408). 2011. www.nice.org.uk/guidance/IPG408.pdf.
30. National Institute for Health and Clinical Excellence (NICE). Open femoro-acetabular surgery for hip impingement syndrome (IPG403). 2011; www.//guidance.nice.org.uk/IPG403.
31. Newman JT, Briggs KK, McNamara SC, et al. Outcomes after revision hip arthroscopic surgery in adolescent patients compared with a matched cohort undergoing primary arthroscopic surgery. Am J Sports Med. Dec 2016; 44(12):3063-3069.
32. Nwachukwu BU, Chang B, Kahlenberg CA, et al. Arthroscopic treatment of femoroacetabular impingement in adolescents provides clinically significant outcome improvement. Arthroscopy. Oct 2017; 33(10):1812-1818.
33. Nwachukwu BU, Rebolledo BJ, McCormick F, et al. Arthroscopic versus open treatment of femoroacetabular impingement: a systematic review of medium- to long-term outcomes. Am J Sports Med. Apr 2016; 44(4):1062-1068.
34. O'Connor M, Steinl GK, Padaki AS et al. Outcomes of Revision Hip Arthroscopic Surgery: A Systematic Review and Meta-analysis. Am J Sports Med. Apr 2020; 48 (5): 1254-1262.
35. Oduwole KO, de Sa D, Kay J, et al. Surgical treatment of femoroacetabular impingement following slipped capital femoral epiphysis: A systematic review. Bone Joint Res. Aug 2017;6(8):472-480.
36. Oner A, Koksal A, Sofu H, et al. The prevalence of femoroacetabular impingement as an aetiologic factor for end-stage degenerative osteoarthritis of the hip joint: analysis of 1,000 cases. Hip Int. 2016; 26(2):164-168.

37. Palmer AJR, Ayyar Gupta V, Fernquest S, et al. Arthroscopic hip surgery compared with physiotherapy and activity modification for the treatment of symptomatic femoroacetabular impingement: multicentre randomised controlled trial. BMJ. Feb 07 2019; 364: l185.
38. Papalia R, Del Buono A, Franceschi F et al. Femoroacetabular impingement syndrome management: arthroscopy or open surgery? Int Orthop May 2012; 36(5):903-914.
39. Reichenbach S, Leunig M, Werlen S, et al. Association between cam-type deformities and magnetic resonance imaging-detected structural hip damage: a cross-sectional study in young men. Arthritis Rheum. Dec 2011; 63(12): 4023-30.
40. Reiman MP, Peters S, Sylvain J et al. Femoroacetabular impingement surgery allows 74% of athletes to return to the same competitive level of sports participation but their level of performance remains unreported: a systematic review with meta-analysis. Br J Sports Med. Aug 2018; 52(15): 972-981.
41. Sardana V, Philippon MJ, de Sa D, et al. Revision hip arthroscopy indications and outcomes: a systematic review. Arthroscopy. Oct 2015; 31(10):2047-2055.
42. Sink EL, Zaltz I, Heare T and Dayton M. Acetabular cartilage and labral damage observed during surgical hip dislocation for stable slipped capital femoral epiphysis. J Pediatr Orthop, 2010; 30(1): 26-30.
43. Thomas GE, Palmer AJ, Batra RN, et al. Subclinical deformities of the hip are significant predictors of radiographic osteoarthritis and joint replacement in women. A 20 year longitudinal cohort study. Osteoarthritis Cartilage. Oct 2014; 22(10): 1504-10.
44. Tran P, Pritchard M, O'Donnell J. Outcome of arthroscopic treatment for cam type femoroacetabular impingement in adolescents. ANZ J Surg May 2013; 83(5):382-386.
45. Wall PD, Brown JS, Parsons N, et al. Surgery for treating hip impingement (femoroacetabular impingement). Cochrane Database Syst Rev. Sep 8 2014;(9):CD010796.
46. Wu CT, Mahameed M, Lin PC et al. Treatment of cam-type femoroacetabular impingement using anterolateral mini-open and arthroscopic osteochondroplasty. J Orthop Surg Res. July 2019;14(1): 222.
47. Zhang D, Chen L, Wang G. Hip arthroscopy versus open surgical dislocation for femoroacetabular impingement: A systematic review and meta-analysis. Medicine (Baltimore). Oct 2016; 95(41):e5122.
48. Zingg PO, Ulbrich EJ, Buehler TC et al. Surgical hip dislocation versus hip arthroscopy for femoroacetabular impingement: clinical and morphological short-term results. Arch Orthop Trauma Surg Jan 2013; 133(1):69-79.

POLICY HISTORY:

Adopted for Blue Advantage, June 2010
Available for comment June 17-August 1, 2010
Medical Policy Group, December 2010
Medical Policy Group, May 2011

Medical Policy Group, June 2012
Medical Policy Group, May 2013
Medical Policy Group, June 2014
Medical Policy Group, June 2015
Medical Policy Group, April 2017
Medical Policy Group, May 2018
Medical Policy Group, April 2019
Medical Policy Group, April 2020
Medical Policy Group, April 2021
Medical Policy Group, April 2022
Medical Policy Group, April 2023
UM Committee, December 2023: Policy approved by UM Committee for use for Blue Advantage business.
Medical Policy Group, May 2024
