FEMOROACETABULAR IMPINGEMENT SYNDROME

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COVERAGE RATIONALE

Surgical treatment, both arthroscopic and open, for femoroacetabular impingement (FAI) syndrome is proven.

Information Pertaining to Medical Necessity Review (When Applicable)
Surgical treatment for femoroacetabular impingement (FAI) syndrome is medically necessary in patients who meet ALL of the following criteria: **

- pain unresponsive to medical management (e.g., restricted activity, nonsteroidal anti-inflammatory drugs)
- moderate-to-severe persistent hip or groin pain that limits activity and is worsened by flexion activities (e.g., squatting or prolonged sitting)
- positive impingement sign (i.e., sudden pain on 90 degree hip flexion with adduction and internal rotation or extension and external rotation)
Femoracetabular Impingement Syndrome: Medical Policy

Radiographic confirmation of FAI (e.g., pistol-grip deformity, alpha angle greater than 50 degrees, coxa profunda, and/or acetabular retroversion)

Do not have advanced osteoarthritis (i.e., Tönnis grade 2 or 3) and/or severe cartilage damage (i.e., Outerbridge grade III or IV)

** (Tannast, 2007; Filigenzi, 2008; Zebala, 2007; Dettori, 2011, Clohisy, Laborie)

Tönnis Classification of Osteoarthritis by Radiographic Changes

- **Grade 0:** No signs of osteoarthritis (OA)
- **Grade 1:** Increased sclerosis of femoral head or acetabulum, slight joint space narrowing or slight slipping of joint margin, no or slight loss of head sphericity
- **Grade 2:** Small cysts in femoral head or acetabulum, moderate joint space narrowing, moderate loss of head sphericity
- **Grade 3:** Large cysts, severe joint space narrowing or obliteration of joint space, severe deformity of the head, avascular necrosis

Outerbridge grades include:

- **Grade 0:** Normal
- **Grade I:** Cartilage with softening and swelling
- **Grade II:** Partial-thickness defect with fissures on the surface that do not reach subchondral bone or exceed 1.5 cm in diameter
- **Grade III:** Fissuring to the level of subchondral bone in an area with a diameter more than 1.5 cm
- **Grade IV:** Exposed subchondral bone head

**BACKGROUND**

Femoroacetabular impingement (FAI), formerly called acetabular rim syndrome or cervicoacetabular impingement is the main cause of early damage to the acetabular labrum and articular cartilage of the hip, particularly in young, active patients and high-level athletes. In patients with FAI, limitation of both flexion and internal rotation occur at the hip joint as a result of premature pathologic contact between the skeletal prominences of the acetabulum and the femur. FAI generally occurs in one joint; however, in rare cases both hips can be involved. Surgical treatment has been utilized to improve the clearance for motion at the hip joint and lessen the femoral thrust against the acetabular rim. Three surgical approaches are commonly used to accomplish the goals of surgical intervention; an open approach, arthroscopy or arthroscopy with a limited open approach (mini-open). (Dettori, et al., 2011; Matsuda et al., 2011)

Components that may be performed during FAI surgery include but are not limited to:

- Removing the nonspherical sections of the femoral head and prominent sections of the anterior femoral neck (osteoplasty)
- Debridement of chondral lesions
- Labral debridement (resection) or labral repair (refixation or reattachment)
- Evaluation and repair of chondral defects using microfracture or drilling chondroplasty
- Excising bony prominence and reshaping the acetabular rim

(NICE, 2011; Ditteri, 2011; Martin and Philippon, 2008)

If left untreated, FAI may lead to osteoarthrosis of the hip. (ECRI, 2010)

FAI is common in patients presenting with low back pain, cartilage damage, hip pain, loss of range of motion, disability, and sport hernias. Most patients can be diagnosed with a good history, physical examination, plain x-ray, and magnetic resonance imaging. The three types of FAI include the following (ECRI, 2010; NHS 2007):
1. **cam impingement** due to an aspherical portion of the femoral head-neck junction (i.e., femoral cause) which is most common in young athletes;

2. **pincer impingement** due to focal or wide-ranging excessive coverage of the ball or femoral head (i.e., acetabular cause) which is most common in athletic, middle-aged women;

3. **mixed pincer and cam impingement** which is the most common type of FAI.

**CLINICAL EVIDENCE**

Open incision, limited open approach, and arthroscopy are established surgical approaches for the treatment of FAI. Significant improvements in activity level, pain scores, and range of motion, as well as absence of impingement pain have been consistently reported following surgical intervention for FAI that is nonresponsive to medical management.

Clohisy et al. (2010) completed a systematic review of 2834 studies of which 11 met the eligibility criteria and underwent comprehensive quality appraisal and review. Most studies were relatively small, single-surgeon cohorts. The review was completed to review (1) determine the level of clinical evidence regarding FAI surgery; (2) determine whether impingement surgery relieves pain and improves hip function; (3) identify complications associated with these procedures; and (4) identify modifiable causes of failure. The current evidence regarding FAI surgery is primarily Level IV (case series) with no Level I (systematic review/randomized controlled trials) or II (prospective cohort) studies identified. All studies documented short decreased pain and improved function in the majority (65 to 96%) of patients with short term follow-up. Many of the studies also propose that certain factors are associated with a subjectively defined fair or poor functional score and/or surgical failure. These poor prognostic factors, although variably reported, include more advanced preoperative osteoarthritis, advanced articular cartilage disease, older age, and more severe preoperative pain. These observations highlight the negative impact of secondary osteoarthritis on the long-term results of surgical intervention. Therefore, joint preservation impingement surgery should be undertaken with caution in the presence of secondary osteoarthritis. The authors concluded that the literature suggests hip impingement surgery is associated with early relief of pain and improved function; however, the impact on long-term clinical results and natural history has not been established. Future studies must focus on an improved set of end points to study this patient population more precisely. Refined, standardized, and validated methods of documenting disease classification, measuring clinical outcomes, and reporting perioperative complications are needed to facilitate more sophisticated clinical investigation. Most importantly, future clinical trials are needed to determine the relative efficacy of nonsurgical and surgical treatment. Predictors of treatment outcome and the efficacy of various surgical techniques need to be established in well-designed clinical trials.

Ng et al. (2010) conducted a systematic review of 23 reports (970 cases) to review the efficacy of surgical treatment for femoroacetabular impingement and which patients will have best outcomes. Multiple different outcome scores were used, including the Western Ontario and McMaster Osteoarthritic Index (WOMAC), the Harris hip score (HHS), the modified HHS (which includes only the pain and function portion of the original HHS), the visual analog scale (VAS), the SF-12 Health Survey (SF-12), the non-arthritic hip score (NAHS), and the Merle d’Aubigne’ hip score. The reported outcome scores improved after treatment for femoroacetabular impingement in all studies, and the effect size was significant for improvement in patient outcomes. Despite these improvements, up to 30% of patients will eventually require total hip arthroplasty. Patients requiring revision to arthroplasty are those with Outerbridge grade III or IV cartilage damage seen intra-operatively or with preoperative radiographs showing greater than Tonnis grade I osteoarthritis. Mean improvement in pain ranged from 25.1% to 100%. Patients dissatisfied with the procedure or who had no improvement of their pain ranged from 0% to 31.2%. The authors concluded that surgical treatment for FAI reliably improves patient symptoms in the majority of patients without advanced osteoarthritis or chondral damage.
A systematic review by Bedi et al. (2008) reviewed 19 articles to determine the quality of the literature assessing outcomes after surgical treatment of labral tears and femoroacetabular impingement (FAI), patient satisfaction after open or arthroscopic intervention, and differences in outcome with open or arthroscopic approaches. The studies reviewed support that 65% to 85% of patients are satisfied with their outcome at a mean of 40 months after surgery. A common finding in all series, however, was an increased incidence of failure among patients with substantial pre-existing osteoarthritis. Arthroscopic treatment of labral tears is also effective, with 67% to 100% of patients being satisfied with their outcomes. The authors concluded that the quality of literature reporting outcomes of surgical intervention for labral tears and FAI is limited. Although open surgical dislocation with osteoplasty is the historical gold standard, the scientific data does not show that open techniques have outcomes superior to arthroscopic techniques.

A prospective study by Philippon et al. (2009) reported 2 year outcomes of 112 patients who underwent arthroscopic surgery of the hip for femoroacetabular impingement. Mean age was 40.6 yrs. At arthroscopy, 23 patients underwent osteoplasty only for cam impingement, 3 underwent rim trimming only for pincer impingement, and 86 underwent both procedures for mixed-type impingement. Mean follow-up was 2.3 years. Mean modified Harris hip score (HHS) improved from 58 to 84 (mean difference = 24 and the median patient satisfaction was 9 (1 to 10). Continuous passive motion (CPM) was used at night although compliance with this was not recorded. Ten patients underwent total hip replacement at a mean of 16 months (8 to 26) after arthroscopy. Of the remaining 102 patients, 12 were lost to follow-up and two-year outcomes were thus obtained for 90 patients. Eight patients did not show any improvement in their modified HHS, with a mean pre-operative score of 66 and a mean post-operative score of 50. The authors concluded that hip arthroscopy for femoroacetabular impingement, accompanied by suitable rehabilitation, gives good short-term outcomes and high patient satisfaction; however, it is unclear how this procedure will affect the long-term outcome of the hip joint.

In a prospective observational study, Tanzer and Noiseux (2004) examined the role of FAI in hip disorders. For this study, 38 patients who had labral tears detected during hip arthroscopy and who had radiographic evidence of FAI were followed prospectively after arthroscopic removal of the torn portion of the labrum. Labral tear development was acute as evidenced by a twisting episode or well-defined precipitating event for 19 (50%) patients, insidious or gradual onset of worsening symptoms for 12 (32%), and due to major trauma as evidenced by a violent impact or dislocation for 7 (18%). In 16 (43%) of these patients, arthritic changes were identified on radiographs taken after arthroscopy. Damage associated with acetabular tears included femoral or global arthritic changes in 7 (18%) patients, anterior acetabular arthritic changes in 6 (16%), and femoral chondral lesions in 3 (8%). At 1 year of follow-up of 24 (63%) patients, mechanical symptoms had resolved completely in all patients; however, only 6 (25%) of these patients no longer had pain. The authors concluded that although arthroscopy for hip impingement is promising, future studies are needed to determine if correction of the anterior hip impingement, early in the natural history of the disease, may delay or prevent end-stage arthritis. This study is limited by small sample size with short term follow-up and a non controlled study design.

In a prospective study by Peters and Erickson (2006), 30 hips (29 patients) with femoroacetabular impingement underwent debridement through a greater trochanteric flip osteotomy and anterior dislocation of the femoral head. Cam (femoral based) impingement was noted in 14 hips; pincer (acetabular based) impingement in 1 hip; and combined cam and pincer impingement in 15 hips. Mean patient age was 31 years. The mean duration of clinical and radiographic follow-up was 32 months. All patients were followed according to a prospective protocol, with Harris hip scores and plain radiographs obtained preoperatively and at 6 months, 1 year, and annually for a minimum of 2 years. The mean Harris hip score improved from 70 points preoperatively to 87 points at the time of final follow-up. In 18 hips, severe damage of the acetabular articular cartilage that had not been appreciated on preoperative plain radiographs or magnetic resonance arthrography was noted on arthrotomy. Eight of these 18 hips subsequently had radiographic evidence of progression of the osteoarthritis, and 4 of the 8 hips required or were expected to soon require conversion to a total hip arthroplasty to treat progressive pain. The authors
concluded that surgical dislocation and debridement of the hip for the treatment of femoroacetabular impingement in hips without substantial damage to the articular cartilage can reduce pain and improve function. This study is limited by its uncontrolled study design and small sample size.

Byrd and Jones (2009) reported on arthroscopic management of cam-type impingement in a prospective study of 200 patients. The average increase in Harris hip score was 20 points; 0.5% converted to THA with a 1.5% complication rate. The short-term outcomes of arthroscopic treatment of cam-type femoroacetabular impingement are comparable to published reports for open methods with the advantage of a less invasive approach. The authors recognized that the surgery can result in successful outcomes, the hip joint can never be truly restored to a disease-free state, and emphasis on injury prevention is essential. A bimodal age distribution with the older cohort reflected the early onset of adult osteoarthritis. The authors indicated that with better recognition of impingement and offending activities, substantial strides could be made in non-operative management.

Horisberger (2010) prospectively followed a cohort of 105 hips (88 patients; 60 males, 28 females) who underwent surgery for symptomatic cam or mixed femoroacetabular impingement. At a minimum follow-up of 1.3 years (average, 2.3 years; range, 1.3–4.1 years) all clinical outcome measures improved. Nine patients (8.6%) underwent THA during follow-up. The outcome measures after arthroscopic therapy for femoroacetabular impingement seem comparable to those reported after open procedures.

Sampson (2005) conducted a retrospective study of arthroscopic hip surgery for FAI, which reported results for 156 patients, some of whom underwent bilateral arthroscopic surgery. The ages of these patients ranged from 14 to 75 years, and most were between the ages of 20 and 40 years. Symptoms were generally mild and included somewhat reduced range of motion (ROM), poor tolerance of prolonged sitting, and inability to participate in sports. For the majority of patients, pain relief was 50% in 6 to 12 weeks, 75% in 5 months, and 95% in 1 year. Patients no longer needed crutches after 2 to 4 weeks. After follow-up ranging up to 22 months, 3 (2%) patients opted for total joint replacement due to continued pain. The average follow-up period and protocol for follow-up were not reported. This study is limited by its retrospective design, heterogenous patient population which limits the generalization of this data to other populations or who is best suited for the procedure, and lack of defined follow-up period and protocols.

Hartmann (2009) retrospectively evaluated 33 patients 15 months after an arthroscopically assisted mini-open anterior approach to compare it with the results after surgical dislocation for FAI. The mean Harris hip score improved from 64 points preoperatively to 85 points at the time of follow-up (P < 0.001). Mean patient satisfaction on the VAS was 7 points (range: 2-10 points). In two of the patients observed, a transient femoral nerve palsy (completely resolved at follow-up) was observed and 15 patients reported numbness in the area of the lateral cutaneous femoral nerve. The author concluded that treatment of anterior femoroacetabular impingement through an arthroscopically assisted mini-open anterior approach can reduce pain and improve function in a short-term observation period.

Peters et al. (2009) conducted a retrospective review of 94 patients (96 hips) to evaluate the change in clinical pain and function after open treatment as well as determine whether failure of treatment and progression of osteoarthritis was associated with Outerbridge Grade IV hyaline cartilage injury. Mean follow-up was 26 months (range, 18–96 months). Harris hip scores (HHS) were used to measure outcomes. The average hip score improved from 67 to 91 at final follow-up. Six patients (6.25%) were considered clinical failures and converted to arthroplasty due to worsening of the HHS. At last follow-up, the Tonnis grade worsened in 25 of 96 hips; however, 23 of these 25 hips (92%) continued to function well with an improved HHS. In the 71 hips without radiographic progression, 24 had Outerbridge Grade IV lesions, 7 had Grade III, and 40 had Grade 0 to II. There was a lower incidence of Outerbridge Grade IV lesions in the hips without radiographic progression of osteoarthritis (24 of 71 hips, 35%) than those with progression (17 of
25 hips, 70%). The authors concluded that open treatment for femoroacetabular impingement in hips without substantial acetabular hyaline cartilage damage reduced pain and improved function with a low complication rate.

A retrospective study by Beaule et al. (2007) evaluated the quality of life after osteochondroplasty of the femoral head-neck junction for the treatment of femoroacetabular impingement. Thirty-seven hips in 34 patients with persistent hip pain and a mean age of 40.5 years underwent surgical dislocation of the hip and osteochondroplasty of the femoral head-neck junction for the treatment of cam type femoroacetabular impingement. The mean score on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) increased postoperatively, the mean University of California at Los Angeles (UCLA) activity score increased, and the mean SF-12 mental component score increased. None of the hips underwent additional reconstructive surgery and 6 of the 34 patients were dissatisfied with the outcome. Ten patients required a reoperation that was directly related to the surgical dislocation approach (e.g., screw removal or a reoperation because of failed trochanteric fixation). The authors concluded that treatment of cam-type femoroacetabular impingement with osteochondroplasty of the femoral head-neck junction is safe and effective and can provide a significant improvement in the overall quality of life of most patients.

Espinosa et al. (2006) retrospectively reviewed the clinical and radiographic results of 52 patients (60 hips) with femoroacetabular impingement who underwent arthrotomy and surgical dislocation of the hip to allow trimming of the acetabular rim and femoral osteochondroplasty. In group 1 the torn labrum was resected in 25 hips. In Group 2, the intact portion of the labrum was reattached to the acetabular rim in 35 hips. At one year postoperatively, both groups showed a significant improvement in their clinical scores (mainly pain reduction) compared with their preoperative values. At two years postoperatively, 76% of the hips in Group 1 (labral resection) had excellent to good results. In contrast, in Group 2 (labral reattachment), 94% of the hips had an excellent to good result. Comparison of the clinical scores between the two groups revealed significantly better outcomes for Group 2 at one year (p = 0.0001) and at two years (p = 0.01). Radiographic signs of osteoarthritis were significantly more prevalent in Group 1 than in Group 2 at one year (p = 0.02) and at two years (p = 0.009). The authors concluded that patients treated with labral refixation recovered earlier and had superior clinical and radiographic results when compared with patients who had undergone resection of a torn labrum. Based on the preliminary results, the authors recommend refixation of the intact portion of the labrum after trimming of the acetabular rim during surgical treatment of femoro-acetabular impingement.

Larson and Giveans (2009) also concluded from their retrospective comparative trial of 75 patients that labral refixation resulted in better Harris Hip score outcomes and a greater percentage of good to excellent results compared with the results of labral debridement.

Laude et al. (2009) retrospectively reviewed 97 patients (100 hips) who underwent osteochondroplasty of the femoral head-neck for FAI using a mini-open anterior Hueter approach with arthroscopic assistance. The labrum was refixed in 40 hips, partially excised in 39 cases, completely excised in 14 cases, and left intact in 7. Six patients were lost to follow-up, leaving 91 (94 hips) with a minimum follow-up of 28.6 months (mean, 58.3 months; range, 28.6–104.4 months). One hip developed a femoral neck fracture and 11 hips developed osteoarthritis and required a total hip arthroplasty. The technique for FAI treatment allowed direct visualization of the anterior femoral head-neck junction while avoiding surgical dislocation, had a low complication rate, and improved functional scores.

An uncontrolled study by Larson and Giveans (2008) on 96 patients (100 hips), was conducted to evaluate the early outcomes of arthroscopic management of femoroacetabular impingement (FAI). There were 54 male and 42 female patients with a mean age was 34.7 years. The surgical procedures performed were 26 (26%) proximal femoral osteoplasties, 21 (21%) acetabular rim trimmings, and 53 (53%) combination osteoplasties and trimmings. Patients also underwent labral debridement and repair or refixation as needed. At a mean of 10 months follow-up compared with
baseline, mean pain score decreased from 6.7 to 1.9, mean Harris Hip score increased from 61 to 83, and mean SF-12 quality-of-life score increased from 60 to 78. All of these improvements were statistically significant (P<0.001). A total of 3 (3%) patients underwent total hip arthroplasty due to insufficient relief from arthroscopic surgery. The authors concluded that arthroscopic management of patients with FAI results in significant improvement in outcomes measures, with good to excellent results being observed in 75% of hips at a minimum 1-year follow-up; however, alteration in the natural progression to osteoarthritis and sustained pain relief as a result of arthroscopic management of FAI remain to be seen. This study is further limited by intervening variables in that some patients labral debridement and repair or refixation.

Uncontrolled clinical studies by Stahelin et al. (2008) and Ilizaliturri et al. (2008) reported that arthroscopic surgery for FAI provided benefits such as improvements in ROM and WOMAC scores. However, in addition to being uncontrolled, these studies were small (n=19 and 22) and involved only 6 months to 2 years of follow-up.

Haviv et al. (2010) evaluated the clinical outcomes in 82 patients with cam-type femoroacetabular impingement and found that symptomatic patients who have similar accompanied pathologies on both sides can benefit from sequential arthroscopic femoral osteochondroplasty.

Philippon et al. (2008a) reported on the treatment of femoroacetabular impingement (FAI) in 16 adolescent patients. The mean age at the time of arthroscopy was 15 years old (range, 11-16 years). Hip arthroscopy for FAI in the adolescent population produces excellent improvement in function and a high level of patient satisfaction in the short-term. This study is limited by small sample size and young patient population.

Philippon et al. (2008b) evaluated the percent fill of the defect and repair grade after microfracture for treatment of a full-thickness chondral defect of the acetabulum performed during the index arthroscope. In this study, 8 of 9 patients had 95% to 100% coverage of an isolated acetabular chondral lesion or acetabular lesion associated with a femoral head lesion, with grade 1 or 2 appearance of the repair product at an average of 20 months follow-up. One patient who had diffuse osteoarthritis failed, with only 25% coverage with a grade IV appearance of the repair product 10 months after index arthroscopy.

A literature review by Philippon et al. (2007) evaluated arthroscopic management of femoroacetabular impingement (FAI) and concluded that despite encouraging reports, long term follow-up is necessary.

Matsuda et al. (2011) conducted a literature review to analyze the current approaches to the surgical management of symptomatic femoroacetabular impingement (FAI). Eighteen peer-reviewed treatment outcome studies met the inclusion criteria with minimum 1-year follow-up of the surgical treatment of skeletal pathoanatomy and associated chondral pathology in skeletally mature patients with FAI. There were 6 open surgical dislocation, 4 mini-open, and 8 arthroscopic studies. The authors found that open dislocation, mini-open, and arthroscopic methods for treating symptomatic FAI are effective in improving pain and function in short-term to midterm studies and are relatively safe procedures. The historical gold standard of open dislocation surgery had a comparatively high major complication rate primarily because of trochanteric osteotomy-related issues. The mini-open method showed comparable efficacy but a significant incidence of iatrogenic injury to the lateral femoral cutaneous nerve in some studies. The arthroscopic method had surgical outcomes equal to or better than the other methods with a lower rate of major complications when performed by experienced surgeons.

The National Institute for Health and Clinical Excellence (NICE): The 2011 guidance documents state that the current evidence on the safety and efficacy for arthroscopic and open
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Femoroacetabular surgery for hip impingement syndrome is adequate in terms of symptom relief in the short and medium term. With regard to safety, there are well recognized complications (NICE, 2011a; 2011b) 2007a).

A 2010 Hayes Brief concluded that arthroscopic surgery improves hip function and reduces pain. Arthroscopic surgery is less traumatic than open hip surgery, which reduces the time required for postoperative rehabilitation; however, since arthroscopic surgery is more difficult than open surgery, arthroscopic surgery may not be as beneficial as open surgery in the long term.

Evidence in the published peer-reviewed scientific literature supports open and arthroscopic hip surgery, including labral repair with or without grafting, as safe and effective for the treatment of femoroacetabular impingement (FAI) syndrome in a carefully selected subset of patients.

The Washington State Healthcare Authority commissioned a Health Technology Assessment (HTA) on hip surgery procedures for treatment of femoroacetabular impingement syndrome (Dettori, et al., 2011). The authors concluded that no randomized controlled trials (RCTs) comparing surgery with conservative care for FAI or comparing different surgical treatments for FAI were found. There is no evidence that one specific treatment resulted in better outcomes than another. Several case series reported improvement in pain, patient-reported and clinician-reported hip outcome scores, patient satisfaction and return to normal activities following FAI surgery. However, whether this improvement is a result of the surgery, or the postoperative rehabilitation, or the change in activity subsequent to the surgery or placebo is not known. There was no reported difference in outcomes in patients with varying degrees of chondral damage assessed during surgery. There are no long-term (≥10 years) data available to assess long-term effectiveness of FAI surgery. There are no data yet published to test the hypothesis that FAI surgery prevents or delays hip osteoarthritis or the need for total hip arthroplasty.

Professional Societies
American College of Rheumatology (ACR): In osteoarthritis guidelines, ACR stated that no well-controlled trials have been conducted to evaluate arthroscopic hip or knee surgery for treatment of osteoarthritis. (ACR, 2000)

U.S. FOOD AND DRUG ADMINISTRATION (FDA)

Although arthroscopic hip surgery for FAI is a procedure that is not subject to FDA regulation, devices and instruments used during the surgery require FDA approval. A search of the FDA 510(k) database revealed over 500 arthroscopes approved for marketing (product code HRX); however, the available studies did not provide sufficient information to determine which 510(k) approvals correspond to the instruments used. Additional information is available at: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm. Accessed October 14, 2011

CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

Medicare does not have a National Coverage Determination (NCD) for femoroacetabular impingement surgery. Local Coverage Determinations (LCDs) do not exist at this time. (Accessed October 21, 2011)

APPLICABLE CODES

The codes listed in this policy are for reference purposes only. Listing of a service or device code in this policy does not imply that the service described by this code is a covered or non-covered health service. Coverage is determined by the benefit document. This list of codes may not be all inclusive.

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**Coding Clarification**
The specific codes for femoroacetabular impingement syndrome surgery listed above should be used instead of 27299 and/or 29999.

**REFERENCES**


**POLICY HISTORY/REVISION INFORMATION**

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| 02/01/2012 | • Revised coverage rationale; added information pertaining medical necessity review (when applicable) to indicate surgical treatment for femoroacetabular impingement (FAI) syndrome is medically necessary in patients who meet all of the following criteria:  
  o Pain unresponsive to medical management (e.g., restricted activity, nonsteroidal anti-inflammatory drugs)  
  o Moderate-to-severe persistent hip or groin pain that limits activity and is worsened by flexion activities (e.g., squatting or prolonged sitting)  
  o Positive impingement sign (i.e., sudden pain on 90 degree hip flexion with adduction and internal rotation or extension and external rotation)  
  o Radiographic confirmation of FAI (e.g., pistol-grip deformity, alpha angle greater than 50 degrees, coxa profunda, and/or acetabular retroversion)  
  o Do not have advanced osteoarthritis (i.e., Tönnis grade 2 or 3) and/or severe cartilage damage (i.e., Outerbridge grade III or IV)  
  • Archived previous policy version 2011T0530D |