



## **Coding Communication: Arthroscopic Femoroplasty/Acetabuloplasty/Labral Repair (29914-29916)**

**CPT® Assistant.**

**September 2011; Volume 21: Issue 9**

**September 2011  
Volume 21 Issue 9**

Coding Communication: Arthroscopic Femoroplasty/Acetabuloplasty/Labral Repair (29914-29916)

Three new codes have been added to the hip arthroscopy family of codes for reporting arthroscopic hip reconstructive procedures (hip arthroscopy with femoroplasty, acetabuloplasty, and labral repair). Codes 29914, 29915, and 29916 represent procedures performed specifically for the treatment of femoroacetabular impingement (FAI).

FAI is a condition in which the femoral head and acetabulum (the ball and socket) do not fit perfectly, causing friction during hip movements and resulting in damage within the hip joint. The damage can occur to the articular cartilage (the smooth white surface of the ball or socket) or the labral cartilage (the soft tissue that surrounds the socket).

There are generally two forms of FAI: cam and pincer. The cam form describes the femoral head and neck relationship as aspherical or not perfectly round. (Cam is from the Dutch word meaning 'cog.')

In the cam form of FAI, a bump on the femoral neck comes into contact with the rim of the socket when the hip is bent up. This loss of roundness contributes to abnormal contact between the head and socket.

The pincer form of FAI describes the situation in which the socket or acetabulum has too much coverage of the ball or femoral head, often from the formation of a spur that extends out from the edge of the socket. (Pincer is from the French word meaning 'to pinch.')

This extra coverage typically exists along the front top rim of the socket (the acetabulum), and causes the labral cartilage to be 'pinched' between the rim of the socket and the anterior femoral head-neck junction.

The cam and pincer forms of FAI also may exist together (ie, mixed impingement).

Abnormal hip joint movement caused by a misshapen femoral head (ball) or acetabulum (socket) can wear away cartilage and tear the labrum (the cartilage rim of the acetabulum). Patients with labral tears complain of hip pain because the labrum has nerve endings that can stimulate pain fibers, causing pain sensation in the hip region.

The goal of surgery is to correct the shape variations that cause impingement and thereby reduce pain and improve hip rotation.



29861


Arthroscopy, hip, surgical; with removal of loose body or foreign body

29862

with debridement/shaving of articular cartilage (chondroplasty), abrasion arthroplasty, and/or resection of labrum

29863

with synovectomy

#29914

with femoroplasty (ie, treatment of cam lesion)

#29915

with acetabuloplasty (ie, treatment of pincer lesion)

#29916

with labral repair

Codes 29914, 29915, and 29916 appear with a number symbol (#) to indicate that these codes are out of numerical sequence in the hip arthroscopy code series (29860-29863). Because the reconstructive procedures described by codes 29914-29916 also involve the articular cartilage and/or labrum (the soft tissue ring that surrounds the socket), procedurally it is not appropriate to report either code 29862 or code 29863 in addition to codes 29914-29916 during the same operative session on the same hip.

## Types of Impingement

When the aspherical head-neck junction of the femur enters the acetabulum, it displaces the labrum toward the capsule and applies disproportionate load to the adjacent articular cartilage of the acetabulum. This leads to chondral delamination and detachment of the labrum from the acetabular rim. Femoroplasty involves recontouring the neck by resecting the cam lesion (code 29914).

## Clinical Example (29914)

A 37-year-old man presents with a five-month history of increasing left groin pain. The pain is worse with sitting and arising from a seated position. Physical examination reveals a loss of hip internal rotation. X-ray scans show a cam lesion at the femoral head-neck junction. An intra-articular injection of corticosteroids provides only temporary relief of symptoms. A three-dimensional computed tomography (CT) scan shows the cam lesion. Surgery is recommended to reshape the femoral head and neck junction.

## Description of Procedure (29914)

The patient is brought to the operating room and placed on a traction table. Distraction of the joint is verified with fluoroscopy. The hip is prepped and draped in a sterile fashion. Arthroscopic portals are established with standard technique using a long spinal needle, flexible guidewire, and a cannulated obturator and sheath. The scope sheath is inserted through an anterolateral portal. An anterior portal is then established under direct arthroscopic and C-arm fluoroscopy. A capsulotomy is performed to enable visualization in the peripheral compartment.

Additional portals are created for work in the peripheral compartment. The cam lesion of the femoral head-neck junction is visualized. The area of abnormal bone is outlined with a radiofrequency device using arthroscopic and fluoroscopic guidance to assure adequate bone removal. The cam lesion is removed using a powered burr and shaver with fluoroscopic and direct visualization. The capsulotomy is then repaired. The peripheral compartment is distended with local anesthetic, the portals are closed with nylon sutures, and a sterile dressing is applied. The patient is transferred to the recovery room.

Larger pincer lesions usually result in an intrasubstance tearing of the labrum, necessitating an acetabuloplasty (code 29915). Depending on the size of the pincer lesion, the labrum may or may not need to be detached from the rim.

## Clinical Example (29915)

A 35-year-old man presents with a four-month history of left hip pain and popping. The pain is worse with sitting and arising from a seated position. Physical exam reveals loss of hip motion. X-ray scans show a 'crossover' sign of the acetabulum. Corticosteroid injection in the hip provides only temporary relief. A three-dimensional CT scan shows bony acetabular deformity. Surgery is recommended to remove a portion of the bony acetabular rim and eliminate the abnormal contact between the rim and the femoral neck.

## Description of Procedure (29915)

The patient is brought to the operating room and placed on a traction table. Distraction of the joint is verified with fluoroscopy. The hip is prepped and draped in a sterile fashion. Arthroscopic portals are established with standard technique using a long spinal needle, flexible guidewire, and a cannulated obturator and sheath. The scope sheath is inserted through an anterolateral portal. An anterior portal is then established under direct arthroscopic and C-arm fluoroscopy. A capsulotomy is performed to facilitate resection in the peripheral compartment. The acetabular rim is resected with a motorized burr superiorly and anteriorly. Adequate resection is confirmed both arthroscopically and with fluoroscopy. Any labral detachment that has been performed to access the bony acetabular deformity is re-attached with suture anchors. The capsulotomy is repaired. The peripheral compartment is distended with local anesthetic. The portals are closed with nylon sutures and a sterile dressing is applied. The patient is transferred to the recovery room.

## Labral Tears

The labrum is a band of tough cartilage and connective tissue that lines the rim of the hip socket, or acetabulum. It cushions the hip joint, preventing the bones from directly rubbing against each other. The labrum also helps keep the leg bone in place and increases stability of the joint. A hip labral tear involves the ring of soft elastic tissue that follows the outside rim of the socket of the hip joint.

Two types of labral tears have been identified. A primary or type 1 tear is a detachment of the labrum from the rim of the acetabulum, commonly caused by a cam impingement. A type 2 tear is an intrasubstance tear of the labrum, typically caused by a crushing of the labrum against the neck of the femur by an overhanging rim of the acetabulum (pincer lesion). Code 29916 describes arthroscopic repair of the torn labrum.


To differentiate, code 29862 represents arthroscopic debridement/shaving of articular cartilage (chondroplasty), abrasion arthroplasty, and/or resection of labrum. As the descriptor language indicates, code 29862 involves resection as opposed to repair of the labrum (code 29916). Procedurally, code 29862 involves selective resection of the unstable portion with debridement to the area of healthy labral tissue. Code 29916 represents the work to repair the torn labral tissue.

## Clinical Example (29916)

A 25-year-old presents with a two-month history of right groin pain and popping following a softball injury. Physical examination reveals pain with flexion, adduction, and internal rotation. Motion is normal. A steroid injection of the hip provides only temporary relief. Magnetic resonance imaging (MRI) arthrogram shows a tear of the acetabular labrum. Surgical treatment is recommended to repair the torn labrum.

## Description of Procedure (29916)

The patient is brought to the operating room and placed on a special traction table in the supine position. Distraction of the joint is verified with fluoroscopy. Arthroscopic portals are established with standard techniques with a long spinal needle, flexible guidewire, and a cannulated obturator and sheath. The scope sheath is inserted through an anterolateral portal. The anterior portal is established under direct arthroscopic and C-arm fluoroscopy. The labrum is closely examined and probed to locate any tears and to determine the stability of the labrum. Soft tissues are elevated from the acetabulum to prepare for labral repair. A drill guide is used through an accessory portal to drill holes in the acetabular rim and suture anchors are placed. The sutures are then retrieved through the labrum in a horizontal mattress stitch using suture retrievers and graspers. The sutures are tied on the extra-articular side of the labrum to avoid contact with the femoral head.

After the repair is completed, the hip capsule is repaired to minimize the risk of postoperative instability. This is done by using suture passers and retrievers brought in through the various portals. Sutures are passed through the capsular tissues and tied with arthroscopic knot-tying techniques. After the procedure is completed, the instruments are backed out of the central compartment and the traction is released. The joint is distended with local anesthetic, the portals are closed with nylon sutures, sterile dressings are applied, and the patient is transferred to the recovery room. 

### References

1. Armand MM, Domb B, Nasser R. Hip arthroscopy: treating femoroacetabular impingement. *Surgical Technologist*. May 2010.
2. Byrd JWT, Jones KS. Arthroscopic femoroplasty in the -management of cam-type femoroacetabular impingement. *Clin Orthop Relat Res*. 2009 March; 467(3): 739-746.
3. American Medical Association. CPT Changes 2011. Chicago, IL: American Medical Association; 2010.