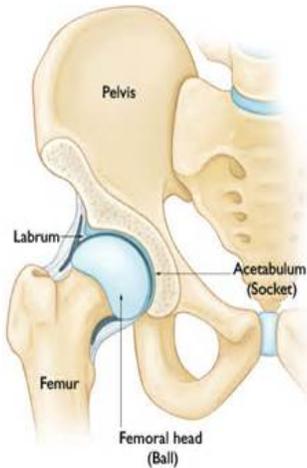




# Labral Tears and Femoroacetabular Impingement (FAI)



## Hip Anatomy

The hip joint is a “ball and socket” joint composed of two bones. The ball is called the femoral head. The femoral head is connected to the shaft of the femur (thigh bone) by the femoral neck. The cup-shaped socket is called the acetabulum which is a part of the pelvis. Covering the bones of the hip is a shiny cartilage called articular cartilage. This is the type of cartilage you see on the end of a chicken bone.

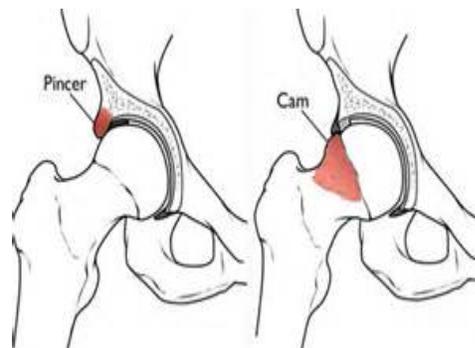
The articular cartilage is important for providing a cushion and a smooth surface when the bones move on one another. Surrounding the cup (acetabulum) is another cartilage called the labrum, which forms a ring around the cup like a seal. It helps to form suction between the ball and cup similar to suction cup.

## What is Femoroacetabular Impingement (FAI)?

Femoroacetabular impingement occurs when the ball (femoral head) does not have its full range of motion in the cup (acetabulum). Imagine a perfectly round ball fitting into a perfectly round half-circle cup. If you were to roll the ball in the cup it would spin around very smoothly. Now imagine an egg shape placed into the cup. When you roll the egg, it will keep hitting the edge of the cup. That is the basic concept of femoroacetabular impingement. Bone irregularities in your hip can occur on either the femoral head (ball) or the acetabular rim (cup) which can limit motion and put the hip at risk for injury.

## Pincer and Cam Impingement

The extra bone located on the head of the femur is





called “cam impingement,” where an extension of the acetabular rim is called “pincer impingement.” These impinging lesions can occur separately or in conjunction with one another.



## Why Does This Cause Pain?

When the extra bone on the femoral head and/or acetabular rim bump against each other they can cause damage to the labrum and articular cartilage. The labrum is the cartilage that surrounds the rim of the acetabulum. The labrum can fray or tear with repeated rubbing and contact of the bump against the rim. When the labrum tears, pain can be felt most commonly in the groin and continued rubbing of the bump can lead to further tearing of the labrum and damage to the articular cartilage. Tears or damage to the articular cartilage is also called arthritis.

## What if I Have FAI and/or a Labral Tear?

A physical examination will be performed on your affected hip. Frequently pain can be reproduced when your hip is flexed and rotated inward. Radiographs (x-rays) are taken in the clinic and are often helpful in visualizing the bumps on the bone, but a special type of MRI will be performed which includes the use of an injected contrast dye in order to see a torn labrum.



Labral Tear

## What are My Treatment Options?

**Conservative options:** Not all patients with FAI and labral tears need surgery. Initial treatment often includes activity modification, use of non-steroidal anti-inflammatory medications (NSAIDs) and physical therapy. Injections with numbing medicine and cortisone into the hip joint may also be recommended to help diagnosis and treat the pain.

**Surgical options:** If your pain does not improve after conservative treatment and your hip becomes more painful, stiff or locked, you may need surgical repair. Hip arthroscopy is a less invasive surgical alternative for hip procedures that would otherwise require open surgical dislocation.



Depending upon the type of FAI, whether you also have a labral tear, your age and other factors, your doctor may recommend surgery with the use of an arthroscope to either place sutures to repair the labrum or to use small instruments to trim off damaged pieces of cartilage, addressing the bone bumps, articular cartilage damage and other problems found at that time.

## Pre-operative Care

If you decide to have arthroscopic surgery to treat your FAI and/or labral tear, you will return within 30 days of your surgery date for a full physical to ensure you're healthy and safe for anesthesia. At the time of your pre-op appointment you will also visit our physical therapy department for crutch training and pre-measurement of an abduction brace which may or may not be needed.

## Post-operative Care

After surgery you will be given written instruction sheets, pictures of your surgery, prescriptions for medication, and a copy of rehabilitation guidelines. This information will answer most of the questions you may have during your recovery.

You will be going to formal physical therapy (PT) two weeks after your surgery. At the initial evaluation you will meet with the physical therapist or athletic trainer (ATC) who will be responsible for your rehabilitation. During this visit, you will be instructed in exercises, wound care and how much weight you should place on your operated leg. In addition, your therapist will ask you to help set your goals for rehabilitation.

The entire rehabilitation process often takes three to six months but may take longer in some patients. During the early phase of your rehabilitation you will be closely monitored. As you progress, you will be able to do more exercises on your own. If you have any questions concerning your rehabilitation process, they should be directed to your rehabilitation team.