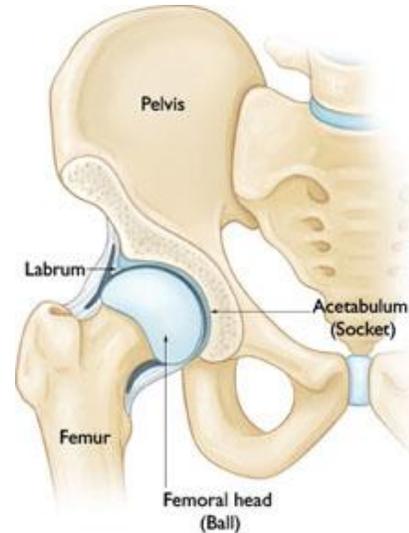


Femoroacetabular Impingement (FAI) is a common cause of hip pain. The most common cause of FAI is overgrowth of bone on the femoral neck, the acetabulum (aka the “socket” of the ball and socket joint) or, most of the time, both. This can impinge structures such as the labrum, as the areas of bony overgrowth can rub against these structures and cause damage.

Anatomy:

Femoroacetabular refers to the two bones that constitute the hip joint (femoro- comes from femur or your thigh bone; acetabular refers to the acetabulum, or the socket of the hip). Like any other joint in the human body, the hip joint is covered with articular cartilage. This tissue helps protect the joint by allowing the bones to slide over each other in a low friction environment. The hip joint, also like every other joint in the body, has a capsule that help provide additional stability to the hip. The hip is also reinforced by a strong fibrocartilage called the labrum. This structure helps redistribute force around the hip and provides stability to the hip joint. When you have FAI, the excess bones cause the impingement of the labrum, causing it to tear.



Initial surgery:

You may have already had a surgery to address your hip pain. Currently the most common surgical treatment, which is also considered the gold standard for the treatment of labral tears, is a labral repair. During this surgery, the surgeon will open the hip joint capsule to be able to see into your joint. Then, the surgeon will shave the overgrown bone that causes the impingement of the labrum. The surgeon will then repair the labrum by stitching it back to its original, anatomic location. Finally, the surgeon will fix the capsule that he or she initially opened. Most patients will have significant symptom relief from this procedure; however, some may not get better. The reasons for that will be discussed further here.

What are the reasons you would perform a revision hip arthroscopy?

There are multiple reasons that patients may need a revision surgery:

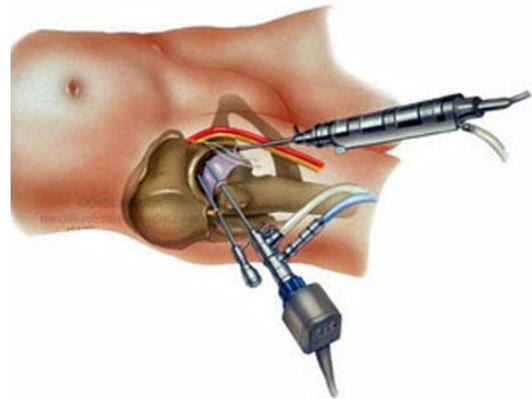
1. Not enough bony resection during the initial surgery.
 - a. *This is the most common reason for a revision.*
 - b. Part of the labral repair surgery is to shave excessive bone around the hip that may be causing a labral tear. Sometimes, a surgeon may not remove enough bone, meaning that the cause of your labral tear was not adequately addressed.

- c. If this is the case, the bony lesions would be properly removed during the revision surgery. This may also require a labral re-repair, labral repair with an augmentation or a labral reconstruction.
 2. Re-injury to the labrum.
 - a. Sometimes, repeat injury can occur. This may be caused by a surgeon mistake, by a patient being extremely active, by another accident or for an unknown reason.
 - b. This may require a labral re-repair, labral repair with an augmentation or a labral reconstruction.
 3. Prior labral debridement.
 - a. Hip arthroscopy, specifically labral repairs, did not become popular until about 10-15 years ago. Prior to that, if patients had a labral tear, it was more common to debride the damaged labrum rather than fix it. This can cause significant problems for patients, because you are removing a significant force redistributor.
 - b. This may also require a labral repair with an augmentation or a labral reconstruction.
 4. Failed labral repair.
 - a. Even if a surgeon performs a surgery 100% perfectly, there is still a chance that the surgery itself may not provide the patient with enough symptom relief. A failed labral repair can happen for many reasons:
 - i. Surgeon error – one of the labrum repair stitches can come loose, or not enough bone was shaved off.
 - ii. Physical therapist error – not following the protocol and advancing the patient before they are ready
 - b. This may require a labral re-repair, labral repair with an augmentation or a labral reconstruction.
 5. Hip joint capsule did not heal.
 - a. Because arthroscopic hip labral repairs are relatively new, techniques for the surgery are improving all the time. In order to perform the surgery, the surgeon must make an incision on your hip joint capsule, as this is the only way to gain access to the hip joint. There is evidence to show that the surgeon should repair the incision that they made on the capsule once the labral repair is complete. Some hip arthroscopists do not fix the incision they made on the capsule, which can cause residual symptoms for patient.
 - b. This may also require a capsule reconstruction with allograft.
 6. Post-operative stiffness.
 - a. One of the most common complications from a hip arthroscopic surgery is stiffness. Some patients are simply more prone than others to develop adhesions around the hip joint.
 - b. This could also be due to lack of compliance with the post-op protocol. The physical therapy following the initial labral repair surgery is designed to prevent stiffness. If a patient fails to adhere to this, then
 - c. This may also require more extensive physical therapy, lysis of adhesions (LOA) or a combination of both.

- d. LOA is simply a clean up of scar tissue and adhesions in the joint.
7. Psoas (hip flexor) contracture.
 - a. This is another common complication following hip arthroscopy. This is the reason that you are flat foot weight bearing with crutches rather than the traditional way you use crutches, and why you were restricted from performing too much hip flexion exercises during the initial phases of rehab.
 - b. This may require more extensive physical therapy, or a surgery called an arthroscopic psoas release.
8. Any combination of the above.

Labral augmentation/ reconstruction surgery:

The goal of this surgery is to essentially create a new labrum. To perform the surgery, Dr. Everhart will use an instrument called an arthroscope; a camera that can be used to look in the joint. The arthroscope makes it easier to look all around the hip joint and minimizes the incisions he would need to make. Using the arthroscope, you will likely have 3-4 incisions that are 2-3cm long.



During surgery you will be placed in a traction table. Your feet will be placed in these boots that look similar to ski boots. This helps apply traction to your joint, so that Dr. Everhart can see all around your hip with the camera. The surgery involves Dr. Everhart looking into your hip joint with the arthroscope to do an examination. After that, he will take a tool to cut through the hip joint capsule to see into the joint. Then he will use a shaver to remove some of that excess bone that causes the labral tear. Dr. Everhart will then turn his attention to the labral reconstruction.

Dr. Everhart will use a motorized shaver to remove the remains of the damaged labrum, as this is tissue that is not viable for healing. He typically uses a hamstring tendon or peroneal tendon allograft (a graft taken from a cadaver that has undergone an extensive sterilization process to minimize the risk of infection) for the reconstruction. He will place the graft to the proper position and stitch it down to the correct anatomic region. Once the reconstruction is done and bones are trimmed, he will close the joint capsule which he opened and will finish the surgery by closing your incisions. If he is unable to repair the capsule adequately, he will perform a capsule reconstruction at this point, which is detailed below.



Revision hip arthroscopy

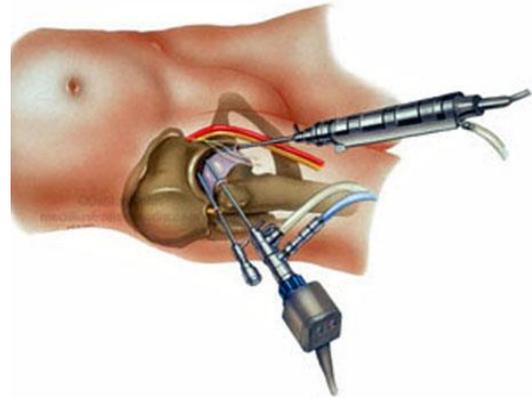


IU Health Physicians

Capsule Reconstruction:

The goal of this surgery is to essentially create a new hip joint capsule. Dr. Everhart is able to perform this aspect of the surgery with an arthroscope as well.

To perform the capsule reconstruction, Dr. Everhart will use dermal allograft, a skin graft taken from a cadaver that has undergone an extensive sterilization process to minimize the risk of infection. He will place stitches through the graft and place it on the correct anatomical position. Once the dermal allograft is placed in the correct position, then Dr. Everhart will proceed to close the incisions and complete the surgery.



This is typically an outpatient surgery, meaning that you get to go home after your surgery is over. You will be placed in a hip brace that limits your range of motion from 0-90 degrees of hip flexion and will be restricted to partial weight bearing using crutches for a period of 3 weeks. You can return to sedentary work as early as 2 weeks, but full return to work will be determined by Dr. Everhart. Full return to activity will also be determined by Dr. Everhart but you can expect to return to activity between 7-12 months.

There are several risks to surgery such as development of an infection, or a blood clot. We do several things to minimize the risks. There can be some risks from anesthesia, but these risks are low as well. We will prescribe you some narcotic medication to help with the pain, and these types of medications have their own side effects as well. We will help you manage these side effects while maximizing the desired effects for you.

It is also common to experience foot pain for a few days following surgery. This is normal and is due to the traction boots. If this persists after a few days, please let us know.