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## **Femoroacetabular Impingement**

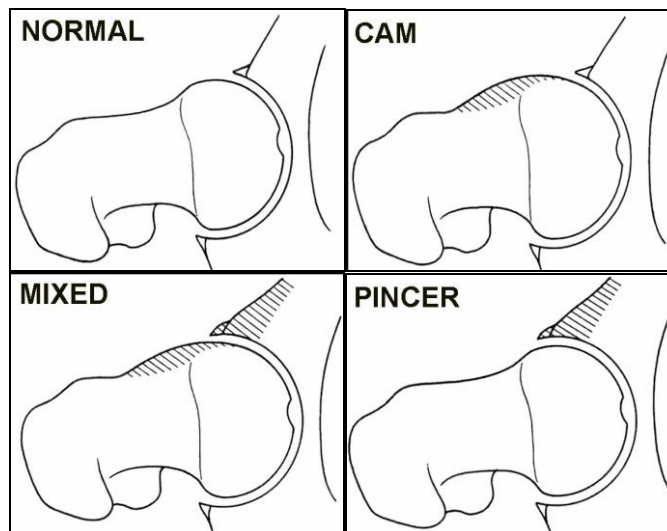
### ***What is femoroacetabular impingement (FAI)?***

FAI is a condition in the hip joint involving abnormal friction between the ball (femoral head) and socket (acetabulum). The ball can be abnormally shaped or the socket may be too deep or have an abnormal position. In either case, over time, the friction causes damage to the cartilage in the joint leading to pain and early arthritis. The damage can be on the surface of the ball or in the socket at the labrum – the bumper around the socket. Tears in the bumper can occur with activities and worsen over time. If left untreated, a total hip replacement may be needed at a young age.

When the problem comes from the ball, it is called a CAM lesion. This can be a problem with normal development or morphology of the hip or can be caused by

a condition that occurs such as slipped capital femoral epiphysis (SCFE), perthes, avascular necrosis, and others. When the hip moves, the CAM lesion bumps against the socket instead of moving freely.

When the socket is the cause, it is called a pincer lesion (meaning “to



pinch"). In this instance, the socket is too deep or in an abnormal position and covers the ball too much. The ball is shaped normally, but still bumps into the socket. This can also be caused by normal development of the hip, the hip turned back or too deep, as well as hip dysplasia. The conditions can occur together as well and are called mixed impingement.

### ***How is FAI diagnosed?***

The diagnosis is made by obtaining the history of the symptoms, a good physical exam and imaging. The history will provide information as to what causes the pain, what makes it worse and what makes it better. The physical exam helps the physician determine whether or not the hip pain is caused by impingement or not. X-rays will show the shape of the ball and socket and may demonstrate pathology. An MRI is usually needed to evaluate the bumper in the socket and to rule out other reasons for the pain. Dye is usually injected into the hip at the time of the MRI to give the best picture. Occasionally a CT scan may also be ordered.

### ***What is the treatment?***

If the diagnosis of FAI is made, there are a few treatment options to consider. Conservative treatment includes rest from activities causing the pain and physical therapy. If the symptoms do not resolve or the MRI shows a tear in the labrum (bumper), a steroid injection with or without anesthetic may be recommended to see if the pain is coming from inside the joint. If the pain is relieved by the injection, it is likely coming from the joint. If the pain is coming from the joint or caused directly by impingement, surgery will likely help in relieving the symptoms.