## A Physical Therapist Reviews the Problem of Snapping Hip

# Physical Therapy in Twin Falls and Buhl for Hip

Have you ever heard of coxa sultans? Sounds like a member of the Arabian royalty. But it's really an annoying hip condition that results in a snapping sound and feeling that occurs in some people whenever they bend or flex their hip. Coxa sultans is better known by a more descriptive term: snapping hip.

In this article, Physical Therapist and professor at Boston University, Dr. C. L. Lewis presents a review of the snapping hip condition. She used a search engine to find all the articles published on the topic up to and including November 2008. She reviewed all the studies available and wrote a summary for us.

Classification, risk factors, and clinical presentation are presented. Dr. Lewis also offers insight into the diagnosis and treatment of this problem. Physical Therapists can benefit from this information when evaluating and treating patients, especially athletes who are bothered by this condition.

The first thing to know is that the problem could be coming from inside the hip joint (intra-articular), outside the hip joint (extra-articular), or both at the same time. Intra-articular linked problems that can lead to snapping hip syndrome include anything that can get caught inside the joint (e.g., cartilage, fracture fragments).

With intra-articular lesions, the patients are more likely to report catching, locking, painful clicking, or a sharp stabbing sensation. Words used to describe snapping hip from an extra-articular source tend to be snapping, clicking, or popping. Pain is a feature more often with intra-articular causes of a snapping hip (less likely with extra-articular causes).

Most of the time, extra-articular symptoms are caused by the iliotibial (IT) band moving across the greater trochanter. In plain English, this means a fibrous band of tissue along the outside of the thigh rubs across a bony prominence of the hip.

The iliopsoas muscle that flexes or bends the hip can also rub against nearby soft tissue or bony structures resulting in snapping, clicking, or popping. In some people, this muscle is divided into two parts. One part flips over the other coming in contact with the pubic bone in the process, thus causing this snapping phenomenon.

The symptoms aren't always helpful in determining where the origin of the problem is. Instead, the Physical Therapist relies on risk factors, provocative tests, and in some cases, imaging studies.

Individuals affected most often are dancers, soccer players, weight lifters, and runners. Women tend to have internal (intra-articular) snapping hip more often than men. The cause could be labral tears or hip dysplasia (shallow hip socket). The labrum is a rim of fibrous cartilage that goes around the hip socket. It helps deepen the area and holds the femoral head more securely in the socket.

Other risk factors include repetitive hip flexion greater than 90 degrees, traumatic hip injury. previous hip surgery, and slight changes in what is considered normal alignment of the femoral neck angle. A smaller femoral neck angle results in a change in the length and pull of the hip muscles.

A real key in making the diagnosis is the result of provocative tests. These tests are designed to aggravate the

problem and reproduce the symptoms. The therapist tests the motion of the patient's leg. Hip flexion, extension, adduction (moving toward the body), and internal rotation are the most likely motions to reproduce the symptoms and confirm the diagnosis.

X-rays and other imaging studies aren't always needed. But they do sometimes add some helpful information. For example, hip dysplasia and changes in the femoral neck angle will show up on X-rays. Changes in the soft tissues such as the bursa or tendons don't show up on X-rays. That's why MRIs are sometimes ordered instead.

More recently, work has been done to show that real-time ultrasound is a useful (and less expensive) way to diagnose the problem. The test shows movement of the tendons and muscles that might be contributing to the snapping sensation. Pain relief with injection of a numbing agent directly into the hip joint or hip bursa can also be helpful in diagnosing snapping hip.

Once the problem has been diagnosed, then what? Treatment is usually with conservative (nonoperative) care. Antiinflammatories may be prescribed by the physician. The therapist shows the affected individual how to stretch properly. Rest is advised along with elimination (or at least moderation) of activities and motions that aggravate the problem.

It may be necessary for the therapist to work with the patient to re-program how and when the hip muscles are activated. This is called neuromuscular re-education. If Physical Therapy is unable to alter the symptoms, then the physician may try injecting the hip. And if that doesn't work, then surgery is the final treatment to try.

The type of surgery done depends on what's causing the problem. The surgeon may lengthen the iliotibial band in a procedure called a Z-plasty. The shape of the incision made to lengthen the band is a Z, hence the name. This procedure can leave the athlete or dancer with significant hip abduction weakness (moving the leg away from the body).

If the snapping is coming from the iliopsoas tendon, the surgeon may lengthen it or release it (cut through it) altogether. Surgery doesn't always take care of the problem. Some patients are still left with the snapping problem -- along with weakness and/or other complications from the surgery. And in some cases, there is more than one problem going on (e.g., labral tear AND iliopsoas tendon rubbing over the bursa). Symptoms can persist until all sources have been removed.

In summary, snapping hip syndrome is a very real problem that can be annoying and even painful. As many as one in 10 average adults is affected. This figure is higher in certain athletes.

Help for the problem comes in the form of conservative care including antiinflammatories, rest, and Physical Therapy. Because there can be more than one thing going on in and around the hip contributing to a snapping hip, diagnosis can take time.

Improvement with treatment but without elimination of the symptoms tells the therapist there may be something else contributing to the problem. With patience and persistence, it is possible to successfully treat snapping hip in the majority of affected individuals.

Reference: Cara L. Lewis, PT, PhD. Extra-Articular Snapping Hip: A Literature Review. In Sports Health. May/June 2010. Vol. 2. No. 3. Pp. 186-190.