Hip Pain in Athletes

Overview

Compared with other areas of the body, the hip joint is the model of sturdiness. It takes considerable force to seriously damage a healthy hip. The large muscles of the thighs, lower back and buttocks are able to withstand more than their share of abuse. Sports-related injuries and problems do occur, however.

The hip is a ball-and-socket joint. The round head of the femur (thigh bone) glides and rotates within the acetabulum, a deep, scooped out cavity on the pelvis bone. The acetabulum is a stable joint surrounded by ligaments and muscles.

The motion and the support of the hip are controlled by muscles of the thighs and lower back. The muscles in the groin, buttocks and abdomen are also involved in the functioning and stability of the hips.

Athletes can experience hip pain as a result of many conditions:

- Bone fractures
- Muscle strains and tendinitis (iliopsoas and proximal hip quadriceps strains)
- Iliotibial (IT) band syndrome
- Muscle tendon bursitis
- Contusion (bruise, commonly called a hip “pointer”)
- Labral tears of cartilage
- Osteoarthritis

Symptoms

**Hip fracture:** This commonly involves a bone break just below the femur head. Such fractures are rare in young people and tend to be caused by falls, car accidents and sports injuries. Symptoms include pain, stiffness, loss of strength and range of motion.

**Muscle strains and tendinitis:** Muscles and tendons of the hip and groin region are subject to overuse injuries. Symptoms include aches, stiffness, and pain in the front or back of the hip when you try to flex your hip while running or kicking.

**Iliotibial band syndrome:** The belt of fibrous tissue that runs along the outside of the hip to the knee becomes too tight and rigid. When the knee is flexed, the IT band grates against the edge of the hip bone, causing irritation. The pain is usually felt outside the hip and along the knee, especially with walking and running.

**Bursitis:** The bursa sacs and other soft tissue around the hip become inflamed and painful, especially with walking and running. Pain is often experienced when lying on the affected side of
Hip “pointer”: This injury often occurs during football or hockey, when an impact to the rim of the pelvis results in internal bleeding. Pain and soreness are experienced on the side of the hip and may make walking or skating difficult. The injury can be visible – swollen and bruised.

Labral tear: Similar to the meniscus in the knee, the hip labrum is cartilage that helps stabilize the femur head and the acetabulum. Hip labrum tears are rare. Symptoms can be vague and difficult to pinpoint. A labral tear causes pain in the hip and may be accompanied by a clicking sound (with movement). Athletes may be unable to run or jump as they normally can.

Osteoarthritis: Hip pain that persists may signal arthritis, especially in older athletes. Limping while walking is also a common hip complaint and may be related to stiffness and pain in the hip joint. With aging, the articular cartilage that covers the hip’s ball and socket starts to roughen and deteriorate. This is osteoarthritis. Eventually, there may be nothing left to prevent direct bone-on-bone friction within the joint, which causes pain with movement and weight-bearing activities.

Causes

Sports-related hip pain is usually the result of a traumatic event, such as when someone falls or sustains a hard impact. Such pain also may stem from extensive, repetitive motion. Hip injuries may also happen with a single event of too much strain or stress to the joint.

Risk Factors

Two major risk factors exist for sports-related hip injuries: Improper conditioning prior to performance and increasing the training regimen too quickly.

Diagnosis

Sport-related hip injuries are generally diagnosed via a thorough exam by a qualified sports-medicine physician. Diagnostic tests may include imaging techniques such as X-ray, MRI or MRI-arthrogram (MRI with contrast).

Complications

Potential complications for sports-related hip injuries include difficulty with the injured hip due to nerve damage and/or pulled tendons that affect movement of the affected joint.

If not treated in a timely manner, any of the above mentioned sports-related hip injuries can result in long-term arthritis. Untreated injuries also can result in cell death and potentially require hip-resurfacing or -replacement surgery.

Recovery
Reducing participation in painful activities is the most important step a patient can take. These actions also can help:

- Ice to reduce inflammation.
- Vigilantly monitor pain levels and associated activities.
- Replace outdated equipment, such as running shoes. Wearing shoes with thick soles helps absorb shock and load to the hip joint. Add orthotic insoles to shoes, if needed.
- If biomechanical issues are contributing to pain, learning proper mechanics.
- Strengthen muscles around the injured bone and adequately stretch – particularly after exercise (yoga might be beneficial).
- Maintain proper nutrition, especially intake of vitamin D and calcium.

If the patient is an athlete resuming training, the initial duration and distance of training should be reduced to half that of pre-injury levels.

**Related Treatments:**

- [Treating Hip Pain](#)