

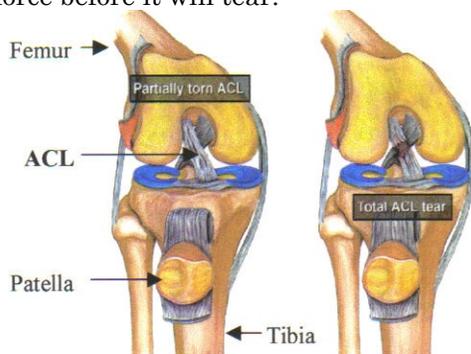
Anterior Cruciate Ligament Tear (ACL)

What is the ACL? The ACL is a fibrous, cord-like tissue found in the center of the knee, which connects the thigh bone (femur) to the shin bone (tibia). The ACL provides strength and stability to the knee joint.

How is the ACL torn? This ligament is most commonly injured during sporting activities such as basketball, football and skiing. Usually a tear occurs when the athlete suddenly pivots, placing excessive rotational force on the ligament. For example, a football player can tear the ACL by pivoting and landing at high speeds. The ACL may also be torn during severe trauma such as a motor vehicle accident. A rupture occurs when the tibia moves too far forward, or when the knee is hyper-extended.

Anatomy of the Knee

The femur and tibia join to form a hinge type joint. There are four ligaments that are crucial for stability of the knee joint; the ACL is one of these ligaments. The ACL attaches the tibia to the femur and can sustain approximately 500 pounds of force before it will tear.



- According to one source, the ACL is the most commonly injured ligament in the knee. Statistics show that women are two to eight times more likely than men to sustain an ACL injury.

Symptoms of ACL Tears

Usually at the time of injury, a “pop” may be felt or heard. Complete and partial ligament tears will cause bleeding into the knee joint that results in swelling and pain. Once torn, the knee usually becomes noticeably unstable.

Diagnosis

An ACL tear can be diagnosed by a physician through a physical exam and may require additional tests such as an X-ray, CAT scan, bone scan, MRI or an arthroscopy. Arthroscopy is a surgical procedure using a fiber optic endoscope that allows the orthopedic surgeon to look directly into the knee joint. The majority of ACL tears are diagnosed clinically, however, and arthroscopy is used more for the treatment of tears rather than for their diagnosis.

Treatment

Non-surgical treatment is recommended for patients who do not regularly participate in high demand sports. Non-surgical treatment may include one of the following: physical therapy, activity modification, or the use of a brace. Treatment options are individualized for each patient depending on age, activity level and the presence or absence of injury to other components of the knee. Surgery is usually recommended for young patients who are involved in high-demand pivoting sports such as basketball, football, and soccer. Surgery can also help protect the cartilage from chronic wear and tear resulting in the onset of arthritis. There are several surgical methods for reconstructing the torn ACL and the type of procedure depends on your surgeon. In most cases the ACL is reconstructed using a tendon from the knee.

Rehabilitation after ACL Surgery

Following ACL reconstructive surgery, rehabilitation includes three phases:

1. Controlling the pain and swelling, regaining knee motion, and regaining muscle strength
2. Controlling swelling and recovery full strength
3. Returning to full activity and sport activity

Recovery after ACL reconstructive surgery depends not on surgery alone but also on commitment to the rehabilitation process. Further inquiries about ACL tears should be directed towards your physical therapist.