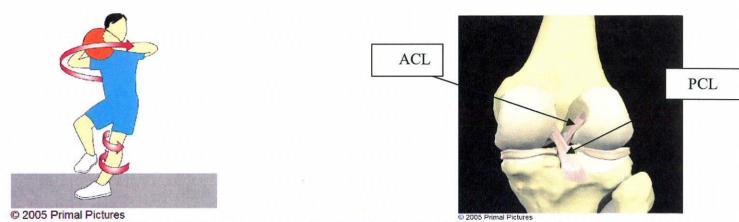


## Anterior Cruciate Ligament (ACL) Tear

**<u>Definition:</u>** The anterior cruciate ligament (ACL) is one of the primary ligaments that help to stabilize the knee joint. A ligament is a tough fibrous band that connects one bone to another to help stabilize a joint. The ACL assists with stability during activities such as running, cutting, jumping, and landing. It is located deep in the center of the knee.

Common Terms: Sprained knee, ACL ligament sprain, "blown out" knee



Typical Mechanism of Injury: Most ACL tears occur without any direct contact to the knee. Usually these tears occur during a sudden stop or change of direction with the foot planted on the ground. The ligament can also tear when landing from a jump in an awkward manner or on someone else's foot. In some cases, an individual can tear the ACL while the foot is planted and a force, in most cases another individual, lands on the outside of one's knee. In all of these situations, a force is placed on the ACL that makes the thigh bone (femur) turn a different way from the lower leg bone (tibia). Girls, especially those involved in sports such as soccer, volleyball, and basketball, are 4-6 times more likely to tear an ACL compared to boys.

<u>Common Signs and Symptoms:</u> A sudden "pop" accompanied by pain and immediate disability in the form of the knee "buckling" or "giving way". Joint swelling will usually occur within a few hours of the injury, and difficulty with walking twisting or turning may occur.

Common Treatment: Early treatment focuses on minimizing joint swelling and restoring joint range of motion. Ice, compression (using and ace wrap) and elevation are helpful and ambulation with crutches may also be necessary. Since the ACL is the main stabilizing structure in the knee joint, usually a tear will require surgery to restore normal function. It is not uncommon to also have injuries to the cartilage or meniscus with a torn ACL. Whether or not surgery is recommended, it is necessary to begin muscle strengthening, range of motion, and other everyday activities as soon as possible to maintain normal function of the knee. In some cases a brace may also be recommended.

<u>Prevention:</u> Studies show that prevention programs that emphasize improving muscle strength and balance, and landing techniques can significantly reduce the number of ACL injuries – especially in young girls. USF offers these programs to community athletes at no cost.

**Expectations:** Rehabilitation is comprehensive and may take up to 9-12 months, both non-surgical and surgical. Rehabilitation and avoidance of strenuous activities too early after surgery are key factors in having a successful outcome following an ACL tear.

## DEPARTMENT OF ORTHOPAEDICS & SPORTS MEDICINE

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