

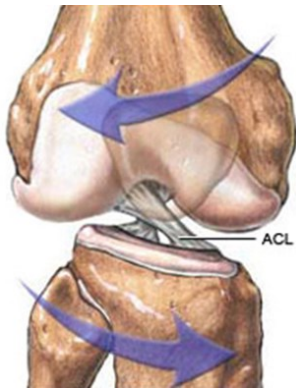
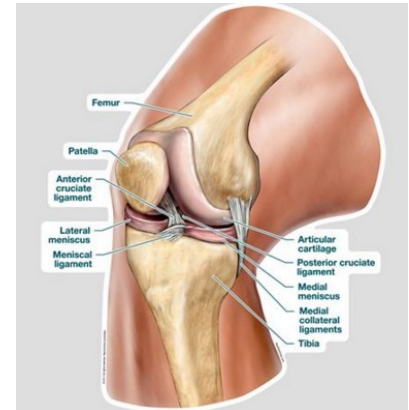
ACL Injuries



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Knee Anatomy

The knee is made up of four main bones, the femur (thigh bone), tibia (shin bone), fibula (outer shin bone), and patella (knee cap). There is a joint capsule, a thick ligamentous structure, that surrounds the entire knee. Inside the capsule is the synovial membrane, which provides nourishment and synovial fluid to lubricate the knee joint. There are also seven bursa (fat pads) in the knee that reduce friction and allow your joint to move smoothly. The stability of your knee comes from four ligaments, the medial collateral ligament (MCL), lateral collateral ligament (LCL), posterior cruciate ligament (PCL) and anterior cruciate ligament (ACL). The MCL runs along the inside of your knee, preventing the knee from collapsing inward. The LCL runs along the outside of your knee, preventing the knee from bowing outward. The PCL and ACL are deep inside your knee joint, preventing your tibia from shifting backward (PCL) and forward (ACL).



What is an ACL injury?

An ACL injury occurs when the ACL is compromised, either causing a stretch, partial or full tear.

What causes an ACL injury?

ACL injuries can occur in two ways. The first is from a direct blow or hit, causing your knee to twist or bend sideways. Usually, it happens if your foot is planted on another object (athlete, ball...) hits your knee. The second way to injury your ACL is a non-contact injury. This is very common in stop-and-go sports, such as soccer. Landing from a jump or changing directions can cause a twisting or bending of the knee, leading to a ACL injury. ACL tears occur in both genders, but female athletes are at higher risk for injury. The peak injury incidence occurs between the ages of 15 and 19.

There are a range of theories as to explain the high incidence of ACL injuries in female athletes. There is evidence that high levels of estrogen, smaller ACL's and tibial slope differences can lead to an injury. Unfortunately, these factors are impossible to fix.

There are also muscle strength and biomechanical factors associated with ACL injury that are modifiable. A number of injury prevention programs targeting ACL risk factors have been developed. Each program teaches lower risk movement patterns, emphasizing proper alignment of the knee and hip, specifically with landing and cutting activities. Most of these programs reduce the risk of serious knee injury by 50% or more. Puberty, or age 14, is often identified as the appropriate time to start an injury prevention program.

What do I do if I think I tore my ACL?

If you sustained a knee injury and you are worried about your ACL, make an appointment with a physician who will be able to assist you in properly diagnosing your injury. Make sure you talk to your coach. If you need to see a physician, call 206 598 3294, option 8 to set up an appointment with the UW Sports Medicine Center at Husky Stadium. Mention that you are a Seattle United athlete and they will get you in within 48 hours.