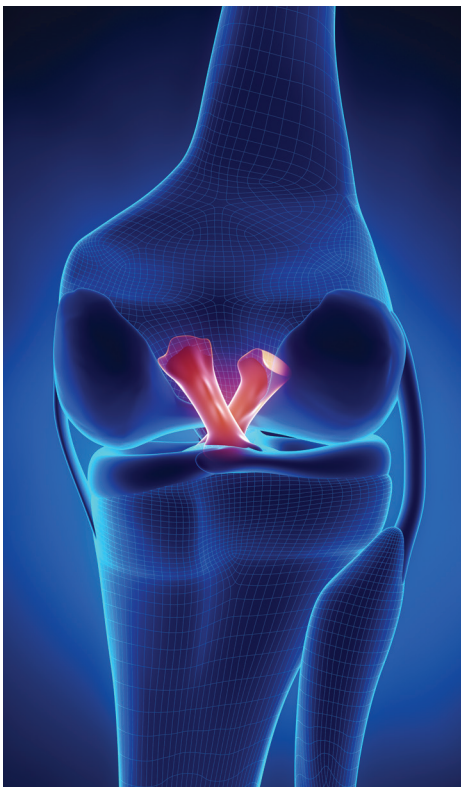


# ACL INJURY

Injury to the anterior cruciate ligament (ACL) can be unpredictable and can sideline an athlete for many months. The ACL is one of four ligaments that provide stability to the knee. The ACL is in the middle of the knee joint, and it forms a cross with the posterior cruciate ligament (PCL). ACL injuries are common in sports and many of the ACL injuries happen with movements that an athlete has done many times before without resulting in injury. In fact, most ACL injuries involve minimal to no contact, according to the Journal of the American Academy of Orthopaedic Surgeons. Injuries to the ACL can also be accompanied by injuries to other structures in the knee joint such as the meniscus (*cushion in the knee*) and/or another knee ligament.



## How do I know if my ACL is injured?

**Signs and Symptoms of an ACL injury:** knee pain accompanied with inability to continue activity, swelling in the knee, a sensation of the knee giving way, an audible pop or feeling of a pop in the knee, and decreased range of motion in the knee

## Diagnosis and Treatment

A physician should assess the knee and make a diagnosis based on subjective history, physical exam, and MRI imaging. The ACL injury is graded from I to III based on level of severity. A grade I injury is when the ACL is slightly stretched/sprained, a grade II injury is when the ACL is stretched so far that it is loose and partially torn, and a grade III injury is when the ACL is completely torn. Surgery may be recommended for ACL tears depending on the person's symptoms and the person's requirements for knee function in the future. Surgery is usually necessary for a person who wants to return to a sport that involves quick changes of direction. Surgery may not be necessary for a person who wants to be able to walk, jog or cycle. The surgery involves replacing the torn ligament. If surgery is done, it is recommended that the person complete post operative physical therapy rehabilitation so that they can safely return to prior level of function. It is recommended that a person may return to sport after passing return to sport criteria around 9 to 12 months after surgery.

## What are the risk factors?

**Risk factors:** poor mechanics when running and slowing/stopping/changing direction, poor mechanics with landings from jumps, running on uneven or slippery surfaces, muscle weakness/imbalance, participation in sports, joint hypermobility (*loose joints*), being female, and prior ACL surgery

## Prevention

It is impossible to prevent all ACL injuries, but there is research concluding that injury prevention programs focused on functional strengthening, motor control, and plyometric exercises can help prevent ACL injuries up to 50%, according to the American Academy of Family Physicians. Warming up properly before sport as well as learning and using proper form for activities that involve jumping, changing direction, and sudden stops are beneficial things for athletes. Consulting with a qualified professional such as a physical therapist for guidance with an injury prevention program is a great way to lower the chance of injury and keep athletes in the game.