

Injury Management Series

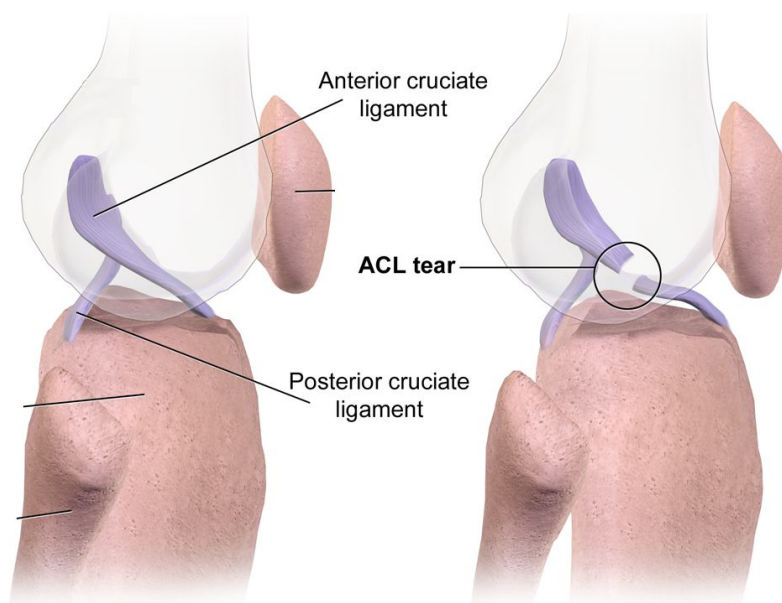
ACL TEAR

ACL Tear is a dreaded yet common injury among athletes. It occurs mostly in sports involving a lot of “start-stop” movements such as basketball, soccer, lawn tennis etc. If due attention is not paid to the treatment and rehabilitation of this injury, it could jeopardize a promising athlete’s career.

With the help of information provided in this article, we will try to understand more about this injury, how we can better prevent its occurrence, and, in case such an injury happens, what can be done to speed up the rehabilitation process.

What is ACL?

ACL, acronym for the Anterior Cruciate Ligament, is a ligament in the knee joint which joins the tibia bone in the lower leg to the femur bone in the thigh. It is one of the main ligaments in the weight bearing knee joint.



What is an ACL tear?

An ACL tear is when there is a tear or sprain in this ligament. The severity of the symptoms determines the degree of functionality lost.

What causes an ACL tear?

- Sudden stop and go motion, such as in sports like basketball, soccer, lawn tennis, etc.
- Impact on collision with another athlete or object, as happens in sports such as rugby.
- Female athletes are more prone to ACL tears than male athletes due to biological differences.
- Previous ACL tears can increase the risk of the injury occurring again.



How to know if there is an ACL tear?

Following are some of the most common symptoms of ACL tear :

- Hearing a sudden and loud “pop” in the knee during activities such as running or changing direction.
- Loss of functionality in the affected knee, feeling like one may lose control over it. Severe pain.
- Swelling in the affected area.

What are the treatments for ACL tear?

The first response to ACL should be to follow the RICE protocol. It stands for :

R – Rest – The athlete should take bed rest and avoid any movement which may put pressure on the affected knee.

I – Ice – To control the swelling, the injured knee should be iced 2 – 3 times a day for 10 – 20 minutes every day.

C – Compression – Compression can help to maintain the reduced swelling. Compression should be maintained using bandages or knee sleeves. The compression should not be too tight, or else it may prove to be a hindrance in adequate circulation.

E – Elevation – Keeping the legs elevated at about 30 degrees redirects the blood flow to the upper body from the lower body.



Taking anti-inflammatory medications may also help in reducing swelling and pain. However, the opinion of a medical professional should be sought before going for any medications.

Post the primary treatment, the athlete should seek medical attention as soon as possible. The doctor might suggest going in for surgery in extreme cases, especially if there has been adjacent damage to other areas of the knee such as the meniscus.

The rehabilitative process involves immobilization and doing certain exercises under the guidance of a physical therapist to strengthen the injured ligament and gain proper range of motion in the joint. The complete immobilization is needed for the connective tissues to repair themselves and may involve bracing of the injured knee.

How can I prevent this injury?

By learning proper movement patterns: Athletes need to work on the proper technique of jumping, landing, pivoting and turning.

By strengthening the leg muscles: Having adequate strength in the leg muscles, especially the quadriceps and the hamstrings ensures that the ligaments are tough as well and can absorb impact in a more efficient way.

By warming up properly: Athletes must follow a well programmed general and specific warm up to raise the body temperature, alert the nervous system for the upcoming activity and improve blood circulation to the working muscles to be better prepared for the game.

An ACL tear is a serious injury which can set an athlete back in his/her career. However, by being aware of this injury and how to avoid it, we can avoid this unfortunate event in our sporting careers.