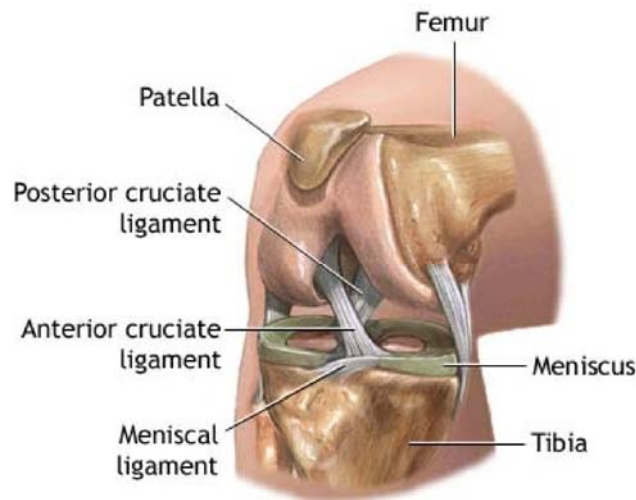


The Anterior Cruciate Ligament, or **ACL**, is one of the major knee ligaments. The ACL is critical to knee stability, and people who injure their ACL often complain of symptoms of their knee giving-out from under them.

Anterior Cruciate Ligament injuries are more frequent in females with between 2 and 8 times more females suffering a rupture than males, depending on the sport involved and the literature reviewed. The reason for this is as yet unknown, however areas of current research include anatomical differences; the effect of oestrogen on the ACL and differences in muscle balance in males and females. Women are more prone to several sports injuries than men based simply on biomechanical differences. One such difference is a wider pelvis in women than men. Many sports medicine experts have linked a wider pelvis to a larger "Q" (Quadriceps) Angle - the angle at which the femur (upper leg bone) meets the tibia (lower leg bone). An increased Q-angle appears to be one factor that causes the knee to be less stable and under more stress.



## Symptoms of an ACL Injury

- Patients who have an ACL tear often have sustained an injury to the knee. This may occur during sport or on a fall.
- There may be an audible pop or crack at the time of injury
- ACL tears cause knee swelling and pain.
- There is usually a feeling of weakness or instability
- Restricted movement, especially an inability to fully straighten the leg
- An MRI may also be used to determine if the ligament is torn, and also to look for signs of any associated injuries in the knee.
- A physiotherapist will look for signs of weakness in the knee by completing special tests that place stress on the ACL, and can detect a torn ligament.

## Treatment of an ACL injury

### Surgery

The usual surgery for an ACL tear is called an ACL reconstruction. The ligament is reconstructed using another tendon to substitute for the torn ligament.

Risks of ACL surgery include infection, persistent instability and pain, stiffness and difficulty returning to your previous level of activity. The good news is that more than 90% of patients have no complications with ACL surgery.

Rehab is one of the most important, yet too often neglected, aspects of ACL reconstruction surgery. Rehabilitation focuses on restoring motion and strength, and improving the stability of the joint to prevent future injuries. It is particularly important to strengthen the hamstring muscles and your physio will discuss correct strengthening exercises for this.

It is important that rehabilitation is conducted under the guidance of a physiotherapist. Progressing too quickly or too slowly can be detrimental to overall results from surgery. It is also important that patients complete specific rehab to allow them to return to their sport or activities.

How long recovery takes largely depends on your surgeon or physiotherapists approach to rehabilitation. Some therapists advocate an accelerated rehabilitation programme returning the athlete to full competition within 6 months, others prefer a 9 month rehabilitation period.

### Conservative management

Sometimes patients, with advice from their surgeon and physiotherapists will opt out of surgery

- Surgery is most commonly used to treat Anterior Cruciate Ligament tears
- If patients do or do not have surgery will depend on many factors including age; lifestyle; sporting involvement; occupation; degree of knee instability and any other associated injuries
- Older people who are less active do not wish to participate in sport may be less likely to undergo surgery
- A younger, fit person who regularly plays sport and would be more likely to adhere to a complex rehabilitation program is very likely to be offered surgery

It is very important that a patient not having surgery completes a comprehensive rehabilitation programme under the guidance of a physiotherapist.

This is in order to gain back as much function, strength and stability as possible and to avoid further pain and injuries.

#### **References:**

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