



WHAT IS AN ACL?

The anterior cruciate ligament or (ACL) is a major stabilising ligament in the knee. The ACL is a band of connective tissue that joins the back of the femur (thigh) to the front of the tibia (shin), stopping the tibia from moving forwards on the femur.



INJURY FACTS:

ACL injury is common amongst the sporting community, particularly in contact and agility sports. ACL injury is more common in females compared to males.

ACL tears are graded on the following scale:

- Grade 1: Small amount of fibres are overstretched or slightly torn resulting in pain but minimal laxity;
- Grade 2: A significant number of fibres are torn but some function remains, some laxity will be present;
- Grade 3: Complete rupture of fibres leading to gross instability, loss of function and usually require surgery.

MECHANISM OF INJURY:

ACL injury normally occurs when there is a twisting force applied to the knee while the foot is contacted with the ground. Another common mechanism is after a direct contact to the knee, often occurring in rugby when another player tackles or lands on the outside of the knee.

SIGNS AND SYMPTOMS:

- Large swelling often within minutes of injury, or over a few hours
- Audible pop at the time of injury or sensation of knee dislocating
- Feeling of instability and the knee may frequently collapse
- Decreased weight bearing
- Pain
- Decreased range of motion

DIAGNOSIS:

Diagnosis can often be made on subjective history alone, with any reporting of 'twisting on a planted foot' raising suspicion of ACL damage. The physiotherapist will complete some ligament tests to check the stability of the knee, Lachmans test, Pivot-shift and Anterior draw are commonly used diagnostic tests. Further diagnosis may be required through medical imaging including MRI.



PHYSIOTHERAPY TREATMENT OPTIONS:

- Taping and bracing
- Electrotherapy
- Dry needling
- Biomechanical analysis and technique correction
- Joint mobilisation
- Massage
- Pain management
- Jump and landing training
- Exercise prescription and gait education
- Education and management advice

FURTHER TREATMENT OPTIONS:

More severe ACL injuries often require surgical reconstruction of the ACL. Common types of reconstruction include Hamstring graft, Patella tendon graft and LARS surgery.



RETURN TO SPORT AFTER SURGERY:

Full return to sport following surgery should occur between 6-12 months. Full strength, agility, flexibility, balance, pain management, function and sports specific activities should be achieved before this occurs. Your physiotherapist will be with you every step of the way to help achieve this goal.

HANDY HINTS:

- RICER protocol should be applied. Rest, Ice, Compress, Elevate and referral during the first 48-72 hours following injury;
- No HARM (No Heat, Alcohol, Running or Massage) protocol is utilised during the first 48 hours following injury.
- Practice co-contractions of the quadriceps and hamstring muscles as soon as possible (pain permitting)
- The stronger the knee is before surgery, the better it recovers;
- Talk to medical professionals if deciding whether to have surgery or not. You will need to consider the sport you play, costs, age, associated injuries and future demands on the knee.

PROGNOSIS/TIMELINES:

Grade 1 ACL tears can often return in 2-6 weeks from the time of injury. Grade 2 timelines can vary greatly from 1-3 months and grade 3 will depend on surgical vs. conservative treatment. Surgical recovery is from 3-12 months depending on the surgery type.