

Anterior Cruciate Ligament (ACL) Tear

What is the ACL

The ACL is the most important ligament providing stability to the knee. The ACL originates at the back of the knee on the femur (thigh bone) and inserts into the front of the tibia (shin bone). Its main function is to prevent forward translation of the tibia whilst also providing rotational stability to the knee.

How do you damage your ACL

The ACL can be torn in several different ways. Landing from a jump, when a twisting force is applied to the knee whilst the foot is planted to the ground or when the knee is forced into hyperextension.

Tears of the ACL can be complete (entirely ruptured) or partial (some of the fibers remain intact) and there can be associated damage to other structures within the knee.

Signs and symptoms of an ACL tear include

- You may hear a 'popping' sound and have the feeling of your knee giving way from under you.
- Severe pain at the time of the injury
- Swelling usually in the first 24 hours
- Stiffness and loss of movement (often an inability to straighten the knee)
- Discomfort whilst walking

Diagnosing an ACL Tear

A thorough objective examination by a physiotherapist is usually sufficient to diagnose an ACL tear.

Further investigation such as xray or MRI scans may be ordered to confirm the diagnosis and determine the extent of the damage.

Treatment

Treatment depends on the severity of the injury and also on the individual. Younger athletes wanting to return to soccer will require surgery whilst older less active individuals may be able to return to their desired level of activity without surgery.

Surgical Treatment:

Most complete ACL tears cannot be stitched back together, so the ligament needs to be reconstructed with a tissue graft. Depending on your surgeon this graft may come from your hamstring tendon, your patella tendon or be made of artificial material.

There are advantages and disadvantages of different graft choices and your surgeon will discuss these with you prior to your surgery.

Rehabilitation:

Whether you have surgery or not rehabilitation will play a crucial role in returning to an active lifestyle. Post surgery there is a 3-6 month rehabilitation period before return to high level sport.

Consult your physiotherapist prior to surgery to ensure you have optimal function of your knee. This prepares you for better outcomes post surgery.

Did you know?

Females are 4-10 times more likely to tear their ACL than men

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