

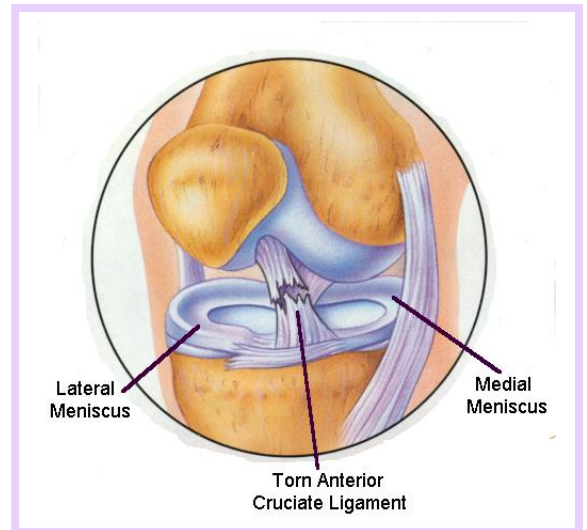
ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION

The Anterior Cruciate Ligament

The anterior cruciate ligament (ACL) is a band of tough fibrous tissue that joins the upper and lower leg bones (femur & tibia). The ACL also supports the knee joint. The ACL is a very important stabilising ligament and once torn unfortunately in the vast majority of cases does not heal and the knee to some extent is left with a feeling of instability or giving way, particularly when twisting or turning.

How the ACL is Injured

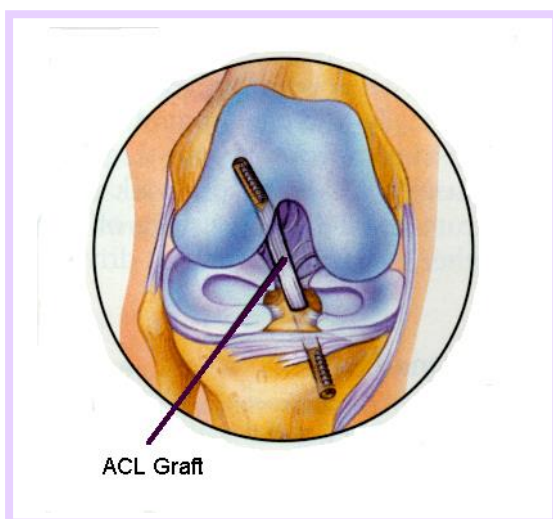
You can tear the ACL by twisting your knee too far or changing direction too quickly. ACL injuries are common among football, basketball and netball players. But anyone can injure an ACL. You can tear the ACL simply by taking a bad fall. You may hear or feel a "pop" as the ligament tears. Your knee may swell and become painful. After the injury, the knee may "give way" during normal movement. Untreated ACL injuries may be linked to early arthritis.



Unfortunately with ACL ruptures there are usually other areas of the knee that have been damaged, ie medial or lateral meniscal tears or articular cartilage damage. These areas may also need surgery which can be performed during arthroscopy. It is not possible to make a damaged knee perfectly normal. It is possible to relieve the pain, improve the internal mechanics and stability and make the knee more dependable.

Conservative Treatment

In some cases one can compensate for this deficiency with appropriate hamstring exercises together sometimes with a supportive brace. Twisting/turning sports (football, basketball, netball, etc) may need to be given up for less demanding sports (golf, tennis, jogging, cycling, etc).



Surgery

If you have a torn anterior cruciate ligament, you may need a procedure called an ACL reconstruction. These days with advancement of technology ACL reconstruction is done utilising the arthroscope, which is a small telescope which is inserted into the knee and directly visualises the inside of the knee without actually cutting it open. This method helps shorten the recovery period and lessens the pain afterwards. The technique for reconstruction involves taking a piece of tendon (hamstring or patellar tendon) from the same knee and using this to replace the torn ligament. The graft is then held in place with either screws or staples. There will be a scar from where the ligament graft is taken and small scars from the stab incisions for the arthroscope and surgical instruments.

Physiotherapy

Physiotherapy rehabilitation is an integral part of recovery from an ACL injury. Pre-operative physiotherapy is of great benefit so the knee is in an optimal state for surgery and the patient is better prepared for the post-operative rehabilitation. Whilst in hospital a physiotherapist will instruct you as to an appropriate exercise regime to regain function of the muscles and provide you with a home exercise sheet. It is important to commence your exercise program as soon as possible and regularly attend your physiotherapist.

ACL Arthroscopic Surgery

- Surgery is usually performed under a general anaesthetic.
- Please inform Mr Crowe and the anaesthetist of your medical history or allergies to medication.
- A drain tube is inserted in to the knee joint after surgery so that unwanted blood does not accumulate and inhibit recovery.
- After surgery an inflatable cuff filled with iced water is placed around the knee.
- The knee is often placed on a CPM machine (Continuous Passive Movement Machine) to commence mobility immediately.
- A brace or splint is not usually required. The patient starts walking with crutches on the first day after the operation.
- The patient is usually discharged 1 or 2 days after surgery.
- Antibiotics and analgesia are prescribed.
- Crutches are normally required for 2 to 3 weeks.
- The knee is bandaged and there are steristrips placed over the wound portals. The bandage can be removed after three days and you may then shower and bathe as normal. It is important to keep the wounds dry and clean.
- The knee can remain swollen for some time after this procedure.
- The time off work will vary according to the patient's job. Office workers will usually be able to resume work within 2 weeks. Manual labour workers may require 2 to 3 months before returning to work.
- Generally by 6 to 9 months most patients are able to recommence their normal activities.
- Post-operatively Mr Crowe will review you in the rooms 10 – 14 days after the procedure.

Complications

- Generally arthroscopic anterior cruciate ligament reconstruction is a very safe procedure and complications are not common.
- Anaesthetics always involve some kind of risk but these are statistically minimal.
- Infection of the wound can occur, despite precautions being taken. This is usually easily treated with antibiotics. However sometimes the infection gets into the joint and this may require further arthroscopic surgery.
- A blood clot (thrombosis) may form in the veins in the legs. This can cause persistent swelling of the foot and ankle and can be dislodged and carried to the lungs, resulting in chest pain and breathing difficulties. Once again, the risk is low and precautions are taken to reduce the risk. To minimise the risk of thrombosis it is important to commence gentle up and down activity of the ankle joint as soon as you are awake. This prevents the blood from pooling in the limb and encourages better circulation.
- Persisting problems sometimes occur as a result of damage to the joint surfaces at the time of the initial injury. This may result in degenerative or arthritic change in the joint in the long term. If evidence of this is seen at the time of surgery new forms of treatment and activity modification may be suggested by Mr Crowe at your post-operative visit.
- Graft failure can occur in less than 5% of cases or the graft may be damaged on return to sport if another severe injury occurs.

If the following occurs, please contact the rooms on 9421 6155 or contact your nearest emergency department.

- Chest pain or shortness of breath.
- Tense swelling or redness in the calf.
- Fever or chills.
- Pain unresponsive to analgesia.

PLEASE REMEMBER THE GOLDEN RULE "IF IT HURTS – STAY OFF IT!"

Raymond Crowe