



## **Patient Information Leaflet**

### **Anterior Cruciate Ligament (ACL) Reconstruction**

#### **What is the anterior cruciate ligament?**

The anterior cruciate ligament is one of the most important ligaments contributing to the stability of the knee. It is situated in the middle of the knee and is responsible for preventing forward and rotational movement of the shinbone (tibia) on the thighbone (femur). It is commonly injured during sport and the loss of this ligament can lead to instability of the knee making it difficult for the patient to continue to perform either everyday or sporting activities. There is good evidence that long-term instability in the knee can result in damage to the joint surface or cartilages resulting in early arthritis.

#### **What needs to be done prior to surgery?**

The decision to have surgery to reconstruct your ACL should only be made after thorough discussion with your surgeon. You should be satisfied that you have all the information you require in order to make an informed decision and that you are aware of both the potential risks and benefits of the planned procedure. It is important that you fully disclose any health problems you may have had. Some may interfere with surgery, anaesthesia or aftercare. You should inform your surgeon and anaesthetist of previous allergies or reactions to antibiotics, anaesthetics or other medicines and in particular of any problems with prolonged bleeding or excessive bruising. Anti-inflammatories or other drugs, which increase bleeding, may need to be stopped prior to surgery. You should stop smoking at least two weeks before surgery as smoking increases the risks of surgery and impairs healing.

If you decide to have surgery, your surgeon will ask you to sign a consent form. Read it carefully and raise any questions. It may be necessary for additional procedures to be performed at the time of surgery if the arthroscopic findings vary from the imaging studies.

As you may need help with your daily activities after the operation you should make the necessary arrangements prior to surgery.

Physiotherapy prior to a reconstruction may potentially improve the outcome and where possible you should discuss pre-operative treatment with your physiotherapist.

#### **What does ACL reconstruction involve?**

The anterior cruciate ligament cannot be repaired and therefore must be reconstructed using a tendon taken either from elsewhere around the knee or from a tissue donor (allograft). The choice of graft and the pro's and con's of each option will normally have been discussed with you at the time of your consultation. The procedure is usually performed as either day case surgery or with a

single nights hospital stay. Two small cuts are made in the front of the knee and an arthroscope (viewing instrument with an attached camera) is introduced to the knee to visualise the structures inside the joint. Instruments are then introduced into the second incision in order to trim the remains of the torn ligament. A new ligament is then made from the donor tissue and is inserted through drill holes in the tibia and femur to reproduce the action of the previously injured ligament. Local anaesthetic is usually injected into the knee and the wounds are closed using absorbable stitches or tapes. A cooling / compression device is usually applied post operatively in order to reduce swelling and improve recovery.

### **What happens after the surgery?**

Your treating surgeon will normally review you on the ward following surgery and describe the procedure performed and any additional procedures that were required. A physiotherapist will also see you in order to introduce you to the rehabilitation program. It is vital that you work hard on your rehabilitation in conjunction with your physiotherapist in order to optimise the outcome of your ACL reconstruction.

It is possible to continue using a cooling and compression device after discharge in order to reduce swelling over the first week or so. If you are interested in exploring this option then please contact the physiotherapy department for information regarding delivery and prices.

### **What does the rehabilitation involve?**

Rehabilitation involves progressing through a series of exercises in order to try and return the knee to normal function. The initial phase concentrates on swelling reduction and/or restoration of range of movement. Following this work will be done to strengthen the knee and allow a graduated return to sporting activity. For details of the recommended protocols please see our website.

### **What are the risks and benefits?**

Depending on the type of reconstruction that is performed and your desire to return to sports, the return to sport rates are usually in the region of 80%. The main risks of surgery include infection (1%), stiffness, numbness around the operative scars, minor weakness of the hamstrings (if a hamstrings graft is used) and there is a small risk of deep venous thrombosis (DVT).

We hope that the above summarises your key questions regarding your forthcoming procedure. Further information is available via our website. Please do not hesitate to contact your treating surgeon should you have any further questions or concerns.

Based on the medical literature most patients should expect:

- A knee with less than 2mm of increased laxity in comparison to the opposite knee.
- Isokinetic strength greater than 90% of the opposite side.
- Normal range of motion.
- A small decrease in total activity and decrease in total function of the knee compared to normal.
- 21-48% risk of developing osteoarthritis on x-ray in 10 years with meniscus tear
- 0-13% risk of developing osteoarthritis on x-ray in 10 years without meniscus tear
- Graft failure of 1-20% (Higher in young active patients)
- More likely to tear the opposite ACL than the graft.
- If a meniscal cartilage tear is repaired at the same time it should have a healing rate of 87-96%.