Daycase Arthroscopic Anterior Cruciate Ligament (ACL) Reconstruction

Orthopaedic Surgery

Your health, your life, your choice, our passion
Hearing about your experience of our services is very important as it means we can pass compliments on to our staff and make improvements where necessary. Tell us what you think by emailing us at: yourexperience@rothgen.nhs.uk

If you require this document in another language, large print, braille or audio version, please contact Patient Information on 01709 424281 or email patientinformation@rothgen.nhs.uk
This patient information leaflet has been designed to provide you with some information about your surgery, recovery and rehabilitation, in addition to what your surgeon has already told you in clinic.

The Rotherham Knee Unit
The Rotherham Hospital Knee Unit is dedicated to providing the best service for knee problems and injuries, using the latest techniques and evidence based surgery. The unit is led by two dedicated Orthopaedic and Trauma Consultant Surgeons who both specialise solely in the diagnosis and treatment of knee disorders including sports related injuries. Both have undertaken sub-specialty Fellowship training in knee surgery. The unit has considerable experience in knee arthroplasty surgery, arthroscopic meniscal surgery including meniscal repair, knee ligament reconstruction, as well as re alignment surgery for deformity. We have the dedicated support of our team of physiotherapists who have the knowledge and experience to ensure you achieve the best possible outcome following your treatment.
What is ACL reconstruction?
The ACL is one of the main ligaments in the knee which runs through the centre of the knee from the back of the femur (thigh bone) to the front of the tibia (shin bone). It acts as a link mechanism to stabilise the knee, especially in twisting movements.

If the ACL has been torn patients often complain of the knee giving way or feeling unstable. This operation gives you a new ligament which will stabilise the knee and help you to return to work and sport.

It is known from research studies that up to 90% of patients consider their knee to function normally or near normally after this operation. It is never possible to repair the torn ACL – it has to be replaced. Some patients will also have damaged one of the menisci (cartilages) inside the knee. This will be treated at the same operation. It can take 7-9 months of rehabilitation after your operation for you to recover fully.
ACL Reconstruction

Diagram to show the structure of the knee

The **Lateral Collateral Ligament (LCL)** runs on the outside of your knee. It limits sideways motion.

The **meniscus** is cartilage that absorbs shock in your joint.

The **Anterior Cruciate Ligament (ACL)** connects the femur to the tibia in the centre of your knee. It limits rotation and the forward motion of the tibia.

The **Patella (kneecap)**

The **Tibia (shinbone)**

The **Posterior Cruciate Ligament (PCL)** also connects the femur and tibia. It limits backward motion of the tibia.

The **Medial Collateral Ligament (MCL)** runs down the inside of your knee joint. It connects the femur to the tibia and limits the sideways motion of the knee.

The **Articular cartilage** lines the bones cushioning your joint.
What will the operation involve?
Most ACL reconstructions will be done as a daycase operation. This means that usually you will go home on the same day as your operation.

Most of the operation is done using keyhole surgery. Your surgeon will make a number of small skin incisions (cuts) around your knee and the operation is done through these.

Firstly, part of the hamstring tendons are taken from the inner part of the knee and these are used to replace the torn ACL. Alternatively the new ligament is made from a small piece of the kneecap (patella) and its tendon (patellar tendon). Your surgeon will tell you which one you will have.

The rest of the operation is done from inside the knee. A hole (tunnel) is drilled into the femur (thigh bone) and tibia (shin bone) and the new ligament is passed through the middle of the knee into these holes. It is fixed in place using screws or staples. These do not need to be taken out later.

If you have a tear of a meniscus (cartilage) then this will be tidied up or repaired at the same operation. The small skin incisions (cuts) are closed with stitches and a well padded bandage is put on to cover the knee.
Diagram to show ACL Reconstruction
What are the potential problems?
All operations have risks, but these thankfully are small with this operation. Your surgeon will discuss these with you before surgery.

Wound infection (1-2%)
This is treated with antibiotics.

Swelling
Your knee will be swollen after the operation and this may take several months to settle.

Stiffness
This can be helped with physiotherapy.

Knee instability (10%)
Some people find that they cannot return to full sporting activities after surgery.

Skin numbness
You may have skin numbness around the front of the knee and down the shin. This usually resolves within 18 months.

Deep vein thrombosis (DVT) (1-2%)
Blood clots can occur with any operation but are rare with this operation. You will be walking on the same day as the operation and this reduces the risk of blood clots.

Re-rupture of the new ligament (1-2%)
If you have another injury you may damage the new ligament. Strengthening the knee with physiotherapy after the operation helps prevent this.
What happens at Pre-assessment?
You will be seen by a nurse who will ask you questions about your health and any medication you are taking. This helps check that you are ready to have an operation. For you to go home on the day of the operation you must have a responsible adult to take you home by car and stay with you for 24 hours after the operation. If there are any concerns about your health you may be asked to see an anaesthetist for an assessment. For further information please see the ‘You and your anaesthetic’ leaflet.

What anaesthetic will I have?
Your anaesthetist will see you on the day of surgery and discuss and explain the anaesthetic options. There are two main options:

1. **General Anaesthetic**: This means the operation will be done while you are asleep.

2. **Spinal Anaesthetic**: This means the operation will be done while you are awake. A local anaesthetic drug is injected through a needle into the small of your back to numb the nerves from the waist down to the toes. Depending on the type of local anaesthetic the numbness will last for 2-4 hours.

You may be offered a **Femoral nerve block (FNB)** in addition to your general or spinal anaesthetic for your pain relief after your operation. This is an injection at the top of your leg to numb the main nerve to your knee.
What happens in Consent Clinic?
You may be seen by your surgeon again before the operation. The details of the operation will be discussed and you will be able to ask any questions you may have before signing the consent form.

What happens on the day of my operation?
The hospital will send you a letter before your operation with details of what time to arrive and where to go on the day of your operation.

You are asked not to eat or drink for 6 hours before your operation regardless of whether you are having a general or spinal anaesthetic.

Your surgeon will see you on the day of surgery and check that you are ready. You can also ask any other questions about your operation which your surgeon will answer.

A physiotherapist will also see you before your operation. You will be shown how to use crutches in case you need them, and given general advice on how to look after your knee following your operation to help the swelling go down.

What happens after my operation?
You will be taken to the Recovery ward from the operating theatre where a nurse will stay with you. You will be given strong painkillers if you need them. A special cuff may be wrapped around your knee that contains ice to help the swelling settle.
When you are back on the ward you will usually be given a light snack and a drink. You may also be given further advice from your physiotherapist on some exercises to do at home and the use of ice.

The nurses will telephone the person collecting you when you are ready to leave. You will be given some painkillers to take at home as well as details of your physiotherapy appointment and clinic appointment.

**What happens when I get home?**

You should rest and follow the instructions given to you by the physiotherapist to help reduce the swelling and gently start moving your knee again. You can put all of your weight on your knee, using the crutches to help you balance.

Getting the movement back in your knee early after your operation is very important, and you will have to do your exercises every 4 hours. Full written instructions will be given to you. The bandages stay on for up to 2 days after your operation. It is important that you drink 2 litres of water a day as this helps prevent blood clots.

**What exercises will I be doing?**

After your operation the physiotherapist will help you to recover. It is very important that you follow the exercises they give you as this will help you get the most out of the new ligament. You will be seen by your physiotherapist on a regular basis.
**Weeks 1-2**
Regain movement in the knee, especially extension and let the swelling settle. Resting indoors for the first week is encouraged.

**Weeks 2-3**
You will be gradually weaned off your crutches and you will start pool and gym based exercises.

**Weeks 3-12**
You will progress with exercises in the pool and gym and usually around 8-12 weeks, depending on how quickly your knee recovers you will begin light jogging activities and cardiovascular work, and higher intensity training for balance and control.

**Months 3-6**
You will continue with strengthening exercises in the gym and progress to more high intensity sport specific training e.g. running, cutting, accelerating, decelerating and turning activities under the close supervision of your physiotherapist.

**Month 6 onwards**
You will progress to the final stages of your rehabilitation which will include sport specific drills. This is in preparation for your return to sport.

**Months 7-9**
full return to sport, but sometimes longer. Your surgeon and physiotherapist will tell you when it is safe for you to return to sport.
When can I start driving?
You can usually start driving after 6 weeks. Your surgeon and physiotherapist will confirm when you are safe to drive.

ACL Injury Prevention Programs
Recent studies have shown that the incidence of ACL injury can be reduced by up to 70% with the use of a specific warm up program before training.

The PEP program (Prevent injury and Enhance Performance program) was developed in Santa Monica by the Santa Monica Orthopaedic Sports Medicine Research Foundation. The program has 5 highly specific parts designed to improve neuromuscular conditioning and muscle reactions which decrease ACL injury:

- **Warm up** – to prevent muscle strain
- **Stretching** – to lengthen muscles and prevent injury
- **Strengthening** – to support the body to prevent injury
- **Plyometrics** – exercises involving jumping, concentrating on landing correctly
- **Agilities** – including shuttle runs and diagonal runs

Additional details can be found at the Santa Monica Orthopaedic and Sports Medicine Research Foundation at [www.aclprevent.com](http://www.aclprevent.com)
How to contact us

Day Surgery
Telephone 01709 426500
7.00am until 7.00pm

Ward B2
Telephone 01709 424317

Ward B3
Telephone 01709 424316

Mr AJ Anderson’s Secretary
Tel 01709 424575

Miss AJ Rees’s Secretary
Tel 01709 424575

Switchboard
Telephone 01709 820000

Useful numbers

NHS 111 Service
Telephone 111

Health Info
Telephone 01709 427190

Stop Smoking Service
Telephone 01709 422444

A&E
Telephone 01709 424455

For GP out of hours, contact your surgery

Useful websites
www.therotherhamft.nhs.uk
www.nhs.uk
www.gov.uk

We value your comments
If you have any comments or concerns about the services we have provided please let us know, or alternatively you can contact the Patient Experience Team.

Patient Experience Team
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How to find us

Hospital site plan

Rotherham main routes