

# Anterior Cruciate Ligament (ACL) Reconstruction Surgery

Trauma & Orthopaedics

## Introduction

This leaflet is for patients considering Anterior Cruciate Ligament Reconstruction Surgery.

## The purpose of this leaflet

Before you agree to any treatment, it is advisable to obtain information about your condition. This means knowing what the problem is, the treatments that are available, the risks and also the alternatives. This leaflet should help you to make a decision alongside discussion with your doctor. Do mention any particular worries that you have and ask for more information at any time.

## What is the Anterior Cruciate Ligament (ACL)?

The Anterior Cruciate Ligament (ACL) is one of the important ligaments that stabilise your knee. If you have torn (ruptured) this ligament, your knee can collapse or 'give way' when making twisting or turning movements. This may interfere with sports or even everyday activities. Your surgeon has recommended an ACL reconstruction to replace the torn ligament. However, it is your decision to go ahead with the operation or not. This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your surgeon or the healthcare team.

## How does an ACL rupture happen?

An ACL rupture happens as a result of a twisting injury to the knee. The common causes are football and skiing injuries. At first, your knee fills with blood and can be swollen and painful but this settles with time. You can injure other parts of your knee at the same time such as tearing a cartilage (meniscus), damaging the joint surface. Some people with an ACL rupture regain good function in their knee with the help of exercises and physiotherapy. If your knee continues to give way, your surgeon may recommend ACL reconstruction.

## What is ACL reconstruction surgery?

This is an operation to reconstruct [repair] the damaged ligament. This is usually done by using part of either your hamstrings or patella tendon. Your surgeon will discuss the best option with you.

**The prevention of infection is a major priority in all healthcare and everyone has a part to play.**

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

## Consent

We must seek your consent for any procedure or treatment beforehand. Your doctor will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed please do not hesitate to ask for more information.

## What will happen if I decide not to have the operation?

Unless you are a high-level athlete, there is a 1 out of 3 chance that your knee will recover without surgery enough to manage day to day activities and some may be able to return to sport; however this may not be at the same level.

## What are the risks of ACL reconstruction surgery?

All operations and anaesthetics have risks and your doctor will talk these through with you. Problems that can occur are as follows:

### **Complications of having an anaesthetic:**

Any operation puts a strain on your heart, brain, lungs and immune system. A small number of patients can have a serious problem such as a heart attack, stroke or chest infection soon afterwards<sup>1</sup>. This is more likely to happen if you already have heart or lung problems. These will be discussed with you in clinic, pre assessment and also with the anaesthetist.

### **Infection:**

Infection of the wound can occur. This may be treated with antibiotics. The incidence is <1%.

If this happens you may need another operation to wash out the knee and a long course of antibiotics<sup>2</sup>.

Infection prevention is taken very seriously in hospital. All staff, patients and visitors are encouraged to wash or clean their hands frequently. Please encourage anyone visiting you or staff making direct contact with you to wash or clean their hands. Hand gels are provided for this purpose.

### **A blood clot or thrombosis:**

You have around a 1 in 1000 chance of developing a blood clot in one of the veins in your legs following surgery. This is called a deep vein thrombosis. In order to prevent these clots from developing you should exercise your legs and start walking as soon as possible after your operation to help your circulation. When you go home take regular short walks. Also, try and avoid long journeys, unless you can stop and take a short walk every 30 minutes, particularly in the first 6 weeks. Do let us know if there is a family history of clots.

### **Damage to nerves:**

Very rarely, during the operation damage to nerves around the knee can occur. The chance of this happening is around 1 in 300. This can lead to numbness or weakness in the leg or foot. This sometimes improves but can be permanent<sup>2</sup>.

### **Bleeding:**

This can occur during or after surgery. If you do experience bleeding your knee will be painful and swollen. In the most extreme of cases you may need another operation to wash the blood out<sup>2</sup>. In order to help prevent swelling you may be advised to wear a support stocking for the first 6 weeks after your operation.

### **Problems with the knee:**

Discomfort in the front of the knee; usually around the scar and the screw that holds the lower end of the graft. Complex regional pain syndrome can occur. This is rare and the cause is not known. If this happens you may need further treatment including painkillers and physiotherapy. The knee can then take months or years to get better<sup>2</sup>.

Loss of knee movement. This may prevent full bending or straightening of the knee. This does usually improve with physiotherapy but can occasionally need further surgery<sup>2</sup>.

Fracture [break] of the kneecap. A fracture of the kneecap can happen during surgery. The risk is around 1 in 100 patients. This can only happen if your surgeon uses the patella tendon. If your kneecap does fracture you may need further surgery<sup>2</sup>.

Failure of the graft which is taken from the patella tendon or hamstring. The graft needs to become part of your knee overtime. This may fail to happen. Your knee will then continue to be unstable<sup>1</sup>.

## What are the benefits of ACL reconstruction surgery?

Your knee should not give way anymore. This will allow you to be more active and you may be able to return to some of, or all, your sporting activities.

## Are there any alternatives to surgery?

The physiotherapist can give you exercises to strengthen and improve the coordination of the quadriceps and hamstring muscles in your thigh. This can often prevent your knee from giving away during everyday activities.

Wearing a knee brace can sometimes help if your knee only gives way while you are playing sports. However, a brace is often too bulky and awkward to wear all the time.

## How do I decide which treatment is best for me?

The choice about which treatment is best for you will be made together with your doctor. This will be based on the risks and benefits of the treatment and your individual circumstances.

## What happens if I decide to have the operation?

You will be asked to attend the pre-assessment clinic to check your general health prior to your operation. You will be given information about coming into hospital.

## What can I do to help make the operation a success?

If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should prepare you for the operation, help you to recover, and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

You can reduce the risk of infection in a surgical wound.

- In the week before the operation, do not shave or wax the area where a cut is likely to be made
- Try to have a bath or shower either the day before or on the day of the operation

## What happens during the operation?

This type of operation is usually done under a general anaesthetic. This means that you will be given drugs to keep you asleep during the surgery.

If you have not had an arthroscopy already this will be done first. An arthroscopy is a procedure to examine the inside of the knee joint. A small telescope, called an arthroscope is inserted through a small cut over your knee. The arthroscopy will check that the ACL is torn. It can also be used to do other surgery on your knee. There is another leaflet available to explain the detail of an arthroscopy.

A cut is made at the front of the knee and sometimes on the outside of the lower thigh. Small holes are drilled through the shinbone [tibia] and the thigh bone [femur]. The new ligament is then taken from either your patella tendon or your hamstring. The new ligament is passed through your knee following the route of your own ligament. It is then anchored to bone at either end, often with screws. Once the operation has been completed the wounds are closed with stitches. These stitches may dissolve over time or need to be removed at a later date. A dressing is applied next to the skin and then a large bandage over your knee.

The operation takes around 1 to 1½ hours.

## What happens after the operation?

When you leave the operating theatre you will go to the recovery area until you are fully awake. You will then be transferred to the ward, or back to the pre-operative ward from where you may be discharged home the same day.

You may have a tube called a drip in your hand or arm. This helps to replace fluids and prevent dehydration. The drip is usually needed for the first few hours and then it is removed.

You will have an oxygen mask over your nose and mouth. This helps your recovery from the anaesthetic.

## Will it be painful?

You should feel comfortable and probably a little sleepy. You will however be offered painkillers if you feel discomfort at any time.

## When do I start exercising my knee?

As soon as possible after your operation you will start exercising your knee. A member of the physiotherapy team will give you advice about the exercises that you need to do. The exercises will help to strengthen your muscles and regain the movement in your knee. After ACL reconstruction surgery physiotherapy is extremely important. The success of your operation depends a great deal on your motivation and willingness to continue with physiotherapy. You will therefore be expected to attend physiotherapy at regular intervals over the next few months and continue with your exercises.

Will I need any walking aids?

You will be given elbow crutches to walk with by a member of the physiotherapy team. You will need to use crutches for around the first 1-2 weeks.

## When can I go home?

You should be able to go home on the same day or day after your surgery. However, by the time you are ready to go home you must be able to walk safely with your crutches including mobilising up and down the stairs.

## When do I return to the hospital?

An appointment will be made for you to attend the physiotherapy department where you will continue to work on your movement and muscle power to your knee. Your first outpatient physiotherapy appointment will be around 10 days after your operation.

You will need to have your stitches removed after around 2 weeks. This can be done at your own doctors or the hospital. These arrangements will be discussed with you before leaving hospital. You will then have another hospital appointment to be seen at around 6 weeks after your surgery.

## How do I care for the wound?

You will leave the hospital with dressings covering the wounds and a bandage around your knee which you need to keep clean and dry for the first 2 weeks. You may re-apply the bandage if it becomes loose but leave the dressings next to your skin undisturbed.

## Can I use the bath or shower?

You can use the bath or shower but you must keep the bandage clean and dry. This can be done by wrapping a plastic bag securely over your knee.

If you do use the bath or shower it is always advisable to make sure that you are not alone in your home just in case you need assistance.

## When can I drive?

It is usually around 2-3 weeks before you can drive again. Your Physiotherapist will advise when it is safe for you to drive. You should be able to put your full weight through your leg and feel confident to do an emergency stop if required.

## When can I return to work?

This depends on the type of job that you do. For example, if you do 'manual' type work which involves bending, lifting, carrying or standing for long periods it will be around 3 months. However, if you do a job where you are mainly sitting down you will be able to return to work in around 3 to 4 weeks.

## When can I play sport again?

The recovery from ACL can take up to a year. You can start non-contact sports such as swimming and cycling at around 6 months. Sports such as squash, tennis and badminton can be played at 9 months. However, it will be around a year before you can take part in full contact sport such as rugby or football.

## When should I contact the hospital?

You should contact the hospital for advice if you suddenly experience any of the following:

- Bleeding, oozing, redness and swelling from the wound which may be a sign of infection
- Severe pain that is not relieved by painkillers
- Pain, tenderness and swelling in the calf of either leg; this could indicate a blood clot or thrombosis
- If you have any other problems that you feel may be related to your operation

## Contact Numbers

### New Cross Hospital

Main Hospital Switchboard	01902 307999
Waiting List Co-ordinator	01902 694092 Mon – Fri, 9.00am – 4.30pm
Orthopaedic / Fracture Clinic	01902 695380 Mon – Fri, 8.30am – 4.30pm
Pre-Admission Clinic	01902 695587 Mon – Fri, 8.30am – 4.00pm
Ward A5	01902 695005
Ward A6	01902 695006
Beynon Short Stay Unit	01902 694049
Appleby Suite	01902 695588

# Cannock Chase Hospital

Main Hospital Switchboard	01902 307999
Orthopaedic Pre-admission Clinic	01543 576589
Holly Bank Ward	01543 576742
Hilton Main Ward	01543 576580

More information can be obtained from:

- The "Patients Section", The British Association for Surgery of the knee. <http://www.baskonline.com/>
- British Orthopaedic Association

## Glossary of terms

**Arthritis:** Inflammation of one or more joints in the body which can cause pain, swelling and stiffness.

**Graft:** Healthy tissue which is taken from one part of the body to another.

**Complex regional pain syndrome:** Continuous pain that can persist for months or even years.

**Hamstrings:** A group of muscles at the back of the thigh.

**Ligament:** A band of tough tissue that joins bone to bone.

**Patella:** The kneecap.

**Patella tendon:** A strong cord of tissue that holds the patella securely in place.

## English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

## Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

## Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

## Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

## Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

## Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。