



## Anterior Cruciate Ligament (ACL) Reconstruction Surgery

**i** Important information for  
all orthopaedic patients  
undergoing ACL surgery.

## About this booklet

The purpose of this booklet is to provide you with information about your Anterior Cruciate Ligament (ACL) Reconstruction Surgery.

All information provided in this booklet is for guidance only and is not exhaustive. Detailed, personalised instruction will be provided by your Surgeon and Physiotherapist.

## What is Anterior Cruciate Ligament (ACL)?

The ACL is one of the ligaments within the knee which is important for providing stability of the knee joint. If injured, this ligament can be reconstructed in order to restore the stability to the affected knee.

## Causes of injury

An ACL injury can occur when the ligament is torn or stretched beyond its normal range.

The cause of injury can be either contact or non-contact.

### **Non-contact:**

- A sudden stop combined with a change in direction when running, pivoting or landing from a jump.

### **Contact:**

- A direct blow to the outside of the knee or lower leg.

Damage to the ACL is a common injury to the knee with a higher incidence in people who participate in high risk sports, such as basketball, football, skiing and rugby.

A popping sound or snapping sensation may be experienced at the time if a ligament is completely torn. Immediately after the injury, pain and swelling may be experienced and the knee may feel unstable.

This may be followed by a loss of movement, pain or tenderness around the knee and discomfort while walking.

## **How is the injury diagnosed?**

Your doctor will examine the knee and ask you how the injury occurred. Further investigations such as Magnetic Resonance Imaging (MRI) may show up any ligament or cartilage damage. An x-ray of the knee may also be suggested.

## **What is ACL Surgery?**

The procedure performed uses the hamstring as a graft, which replaces a damaged or torn ACL with two tendons taken from your leg. If the hamstring tendons are not available or suitable, a patellar tendon graft may be used.

## **What is the goal for ACL surgery?**

The goal for ACL surgery is to prevent instability and restore the function of the torn ligament, creating a stable knee. This allows you to return to sports after a period of rehabilitation, which may vary from six months to one year, depending on the severity of the injury and the type of sporting activity you are participating in.

## Before surgery

You will be pre-assessed by nurses to ensure that you are fit for surgery. Any concerns the nurses have will be highlighted to the surgeon and the anaesthetist if necessary. The nurse will check your temperature, blood pressure and pulse.

A tracing of your heart may be taken, blood sample and possibly an x-ray. Your weight and height will be measured; a sample of urine will be requested when you arrive. Information regarding the procedure will be given to you and any questions can be asked at this time.

You will then speak to the surgeon who will examine you and discuss the procedure and you can ask any questions. At this consultation you will be asked to sign a consent form stating that you have understood what is entailed and that you are willing to go ahead with the surgery. You will normally be examined by the ward medical staff during your time at the clinic.

You will discuss your rehabilitation programme with a physiotherapist who will also ask you to provide details on where you would like to attend for rehabilitation.

## Day of surgery

You will be brought in early in the morning for your surgery and discharged later in the day; sometimes an overnight stay be required. You will be seen by the anaesthetist prior to surgery, who will answer any concerns you may have and explain any procedures. The surgery can take anything between one and two hours.

On the day of surgery you will be seen by your surgeon and physiotherapist. The physiotherapist will show you how to use elbow crutches, teach you exercises, help you to practice the stairs and discuss any concerns you may have regarding your rehabilitation.

## After surgery

Your knee may be painful and swollen. The wound will have a dressing in place, which can be left for seven days unless there are any signs of infection, e.g. unusual leakage, heat, increased pain or swelling or feeling unwell. If you have any concerns, contact your doctor or call 0141 951 5000 extension 5554 for advice.

You will be advised to follow P.R.I.C.E. Guidelines (see page 6) and apply ice to your knee at regular intervals to reduce swelling and pain.

Prior to discharge you will be given pain relieving medication and you will be advised on when and how often to use it.

You may be required to wear a brace, depending on your Surgeon's advice.

You will be seen at the review clinic, GP surgery or by the District Nurse two weeks after your surgery to remove your stitches. The surgeon will decide when your next appointment will be depending on how you are progressing.

## P.R.I.C.E. guidelines

- Protect:** Use of elbow crutches as pain allow (below).
- Rest:** When resting your leg, make sure your knee is straight. **Do not** rest the back of your knee over a pillow.
- Ice:** Apply ice for 20 minutes to reduce swelling. Always place ice pack over a damp cloth to protect your skin from an ice burn.
- Compression:** You will have a compression bandage in situ. Usually this is removed after 24 hours. Follow advice from your nursing staff.
- Elevation:** To control your swelling, elevate your leg (toes above your nose) for 30 minutes. Ensure your whole leg is supported with three or four pillows from your heel downwards. Lie back on your bed. Repeat this three times daily.

## Pain control

In the initial period following your operation it is more effective to take your painkillers regularly, as they have been prescribed.

## Elbow crutches

Following your surgery you are allowed to place as much weight as is comfortable on your leg. Elbow crutches are to be used for pain relief and stability.

Your physiotherapist will advise you when to discontinue using your crutches (usually around two weeks).

## Driving

You should not drive for four to six weeks following surgery, this will be confirmed by your consultant. It is recommended that you contact your insurance company and inform them of your surgery. It is also advised that you attempt an emergency stop prior to returning to drive.

## Returning to work

Return to work is dependent on the nature of your occupation. You should discuss this with your Consultant and Physiotherapist.

## Returning to sport

How quickly you return to sport depends on the sport you wish to participate in. The following are recommendations; you should speak to your consultant if you have any specific questions:






- six weeks: return to gym
- six months – one year: return to racquet sports, football/rugby, climbing, snowboarding/skiing and golf.

You are advised to participate at a lower level of competitive activities for three to four months. A good warm-up is advisable to help prevent re-injury to the knee.

## General advice

The graft is at its weakest between six and 12 weeks after your operation, so it is important to take care during this period when carrying out activities. In order to protect the graft site, twisting and kneeling should be avoided for the first four to six months after your operation.

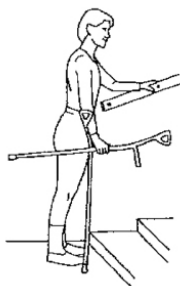
# Post surgery Exercise Programme

	<p><b>Exercise 1</b></p> <ul style="list-style-type: none"> <li>• Lie face down with your hips straight and knees together, bend your knee as far as possible using the unoperated leg to raise the operated leg, keeping hip straight and ankle flexed</li> <li>• Hold for five seconds.</li> <li>• Lower the leg down again using the unoperated leg to support the operated leg.</li> <li>• Repeat x10, three times a day.</li> </ul>
	<p><b>Exercise 2</b></p> <ul style="list-style-type: none"> <li>• Lie on your back with legs straight, bend your ankles and push your knees down firmly against the bed</li> <li>• Hold for five seconds then relax.</li> <li>• Repeat x10, three times a day.</li> </ul>
	<p><b>Exercise 3</b></p> <ul style="list-style-type: none"> <li>• Lie on your back with a sliding board under your leg, bend and straighten your hip and knee by sliding your foot up and down the board.</li> <li>• Repeat x10, three times a day.</li> </ul>
	<p><b>Exercise 4a</b></p> <ul style="list-style-type: none"> <li>• Sit on a chair with the leg supported on a chair as shown and the knee unsupported.</li> <li>• Let your leg straighten in this position and maintain the position for five to 10 minutes or as the pain allows.</li> <li>• Repeat every waking hour.</li> </ul>
	<p><b>Exercise 4b</b></p> <ul style="list-style-type: none"> <li>• Only do this exercise if 4a is achieved with ease.</li> <li>• Lie face down on a table/bench with your knees and feet over the edge.</li> <li>• Let the weight of your feet straighten your knees and maintain the position for five to 10 minutes or as the pain allows.</li> <li>• Repeat every waking hour.</li> </ul> <p>NB. a pillow may be placed under the thigh for comfort.</p>



## Walking up and down stairs

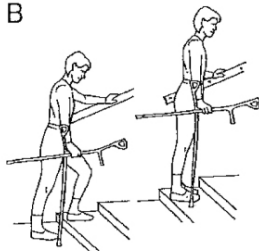
A



### Walking up stairs

- Stand close to the stairs.
- Hold onto the handrail with one hand and the crutch/crutches with the other hand.

B



- First take a step up with your healthy leg.
- Then take a step up with your affected leg.
- Then bring your crutches up onto the step.
- Always go one step at a time.

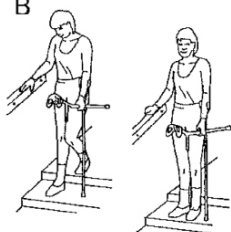
A



### Walking down stairs

- Stand close to the stairs.
- Hold onto the handrail with one hand and the crutch/crutches with the other hand.

B



- First put your crutch one step down.
- Then take a step with your affected leg.
- Then take a step down with your healthy leg onto the same step as your affected leg.
- Always go one step at a time.

## Notes

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## Notes

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