

Anterior Cruciate Ligament (ACL) Reconstruction Surgery at The Royal Bournemouth Hospital



This leaflet from the Orthopaedic Directorate has been designed to answer any questions you may have

Please bring this booklet into the hospital with you

Introduction:

Dear Patient,

This booklet tells you about ACL reconstruction surgery at The Royal Bournemouth Hospital. It is for people who decided to have surgery after discussing the options, benefits and possible risks with their Consultant or Surgeon.

We have developed this guide to help answer any questions that you may have about your operation and recovery afterwards. It will be useful during each of your hospital visits so please bring it with you.

This booklet is a general guide and there may be alterations in your management made by your surgeon, anaesthetist or therapist. These alterations should take priority.

All members of the Orthopaedics Team are committed to providing you with the highest standard in care and we look forward to welcoming you.

Best Wishes,

The Orthopaedic Team

This guide belongs to:

.....

Your orthopaedic consultant is:

.....

Appointment Dates

Surgery:

Follow up:

Other:

Goals

Goal 1:

Goal 2:

Goal 3:

We encourage your questions and enquiries;
please write them here to ask at your next meeting

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Educational information

What is this operation for?

The Anterior Cruciate Ligament (ACL) is one of the ligaments which sits deep inside the knee. The stability of the knee joint is maintained by four ligaments (thick bands of tissue). The medial collateral ligament (MCL) and lateral collateral ligament (LCL) are on the sides of the knee and prevent the joint from sliding sideways. The ACL and posterior cruciate ligament (PCL) form an "X" on the inside of the knee and prevent the knee from sliding back and forth.

The ACL can be torn or 'ruptured' by a fall or sports injury. Your knee may then give way or it may feel like it is giving way. It may stop you doing your normal activities or sports. An operation can rebuild (reconstruct) the torn ligament.

Understanding Risks

Where we discuss risk with you we will use the following terms:

Term	Numerical Ratio	Equivalent
Very Common	1/1 to 1/10	A person in a family
Common	1/10 to 1/100	A person in a street
Uncommon	1/100 to 1/1000	A person in a village
Rare	1/1000 to 1/10,000	A person in a small town
Very Rare	Less than 1/10,000	A person in a large town

Risks to this surgery

Surgery should not be undertaken lightly and it is always important to know the risks before proceeding. Your consultant will have discussed these risks with you prior to listing you for surgery.

Common

- Swelling
- Numbness
- Wound healing problems
- Scars
- Re-rupture
- Donor site pain (pain where the graft is taken from)
- Stiffness
- Ongoing knee pain
- Need for more surgery (if you have ongoing pain, instability or the graft ruptures)
- Knee problems later in life (such as osteoarthritis)
- Ongoing instability (knee giving way)

Uncommon

- Infection
- Bleeding
- Taking the graft from the other leg (if graft from the injured leg is not sufficient)

Rare

- Injury to blood vessels or nerves
- Deep Vein Thrombosis (a blood clot in the legs)
- Pulmonary Embolism (a blood clot in the lungs)

Very Rare

- Amputation

Additionally there are risks associated with the anaesthetic used for the operation; your anaesthetist will discuss these with you.

Before your surgery

Preadmission Assessment

The Preadmission department from Royal Bournemouth Hospital will contact you with the appointment information. If you have any questions about your appointment please call their department.

The visit to the preadmission assessment clinic may require you to be at the hospital for several hours. It is important to attend this appointment or your surgery may be postponed or cancelled. In the clinic, you will be officially registered for your hospital admission and a nursing assessment and preoperative tests will be done. These tests may include:

- X-rays
- Blood and urine tests
- ECG (Electrocardiogram)

You may be seen by other health care professionals during the visit. These may include::

- Pre-Assessment Specialist Nurse
- Anaesthetist
- Ward Doctor

Please bring the following to your pre-operative assessment appointment:

- All your current medications
- A list of allergies including the type of reaction.

Planning ahead

It is important to plan and make arrangements for how you will manage once home. Stocking up your freezer with easy cook items is advised (particularly if you live alone), as you may find it difficult to walk to the shops initially. If you have family or friends who can stay with you or visit regularly this may make your recovery easier, both for helping with household tasks and moral support, particularly in the first two weeks.

Actions to take before your surgery

Once you have your date for surgery you can do several things to aid preparation for your operation and to assist with your recovery.

Smoking

Smoking has been shown to delay wound healing and increase complications after surgery. Patients who stop smoking benefit from long term improvements to general health, decrease the risks associated with anaesthetic and have a better outcome from surgery.

If you are interested in stopping smoking please speak to your pre assessment nurse or GP for advice and services available.

Weight management

Even though you may feel fit and healthy at your current weight, patients with a higher body mass index (BMI) are more likely to experience potentially serious complications both during and after surgery.

If you are keen to lose weight before your surgery please speak to your pre assessment nurse or GP for advice and services available.

Cancellation

If you are unable to attend your appointment, please contact us immediately so that we can offer your appointment to another patient.

Arriving for your surgery

Day of surgery

Eating and drinking

Please follow the instructions given to you about when to stop eating and drinking before your operation. If there is food or liquid in your stomach during your anaesthetic, it could come up into the back of your throat and damage your lungs.

If you normally take prescribed medicines in the morning, please continue to take these on the day of surgery, apart from tablets you have been specifically told not to take by the pre-assessment team. Take them with a sip of still water.

Please do not drink alcohol for 24 hours before surgery.

Arrival

You will come into hospital on the same day as your operation. You will need to present yourself to the Sandbourne Admissions Suite to be admitted for surgery. Most ACL reconstructions are performed as day surgeries and will be able to go home on the day of the operation however you may be required to stay overnight depending on the time of your operation and your recovery.

When you arrive at the Sandbourne Admissions Suite a nurse will check you in. You may also be visited by the surgeon and anaesthetist before your operation.

You will then be asked to put on a hospital gown. All patients who are able, will walk to theatre for their operation, accompanied by a member of our nursing staff. You will be asked to remove any loose items such as glasses and false nails prior to your surgery.

Your surgery

Anaesthetic

An ACL reconstruction is performed under a general anaesthetic. This means you will be unconscious throughout the operation. You may also have a nerve block which will assist with pain control. The nerve block will affect sensation and sometimes muscle strength in the leg. It can take 24 to 48 hours before this wears off completely.

Surgical Procedure

There are a number of different grafts (tendons to use) and also different methods of fixation for reconstructing the ACL. The exact procedure done may vary according to factors unique to you, as well as the surgeon's preference.

ACL reconstructions are performed arthroscopically. This is another word for 'key hole' surgery where two or three very small incisions are made to access the knee joint. The surgeon can use these incisions to place a small camera inside the knee as well as the instruments to perform the surgery. First the surgeon must examine the joint then remove the torn ends of the ACL.

The chosen graft is then 'harvested'. The surgeon will usually harvest the graft from the same leg that is being operated on. However if the graft is poor, they may use the other leg for the graft.

Most commonly one or two of the tendons from the hamstring muscles (the muscles found at the back of the thigh) are used for the graft. Studies have shown that these tendons can be removed without affecting the strength of the leg. There are other bigger hamstring muscles which can take over the function of the tendons removed.

Tunnels are then drilled into the tibia (shin bone) and femur (thigh bone) and the graft is threaded across the knee in the same position as the original ACL. The graft is then secured in this position, most commonly with a screw. This screw will be left in place permanently.

Closure and dressing

Once the surgery is finished the small incisions will be closed with steri-strips or stitches and covered with small dressings. A large wool and crepe bandage will then be wrapped around the knee.

You may have a surgical drain in your knee for the first few hours; a small pipe connected to a bottle to collect any blood in the knee.

What happens after the operation? (while I am in hospital)

We hope that you will be able to go home on the same day as your procedure, however depending on your recovery and your home situation you may be required to stay overnight. You will have an x-ray of your knee taken prior to discharge.

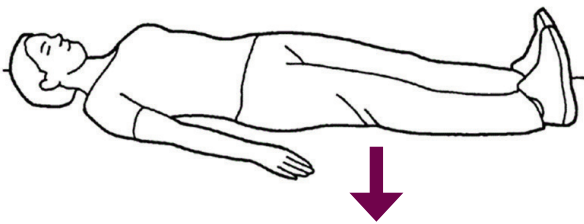
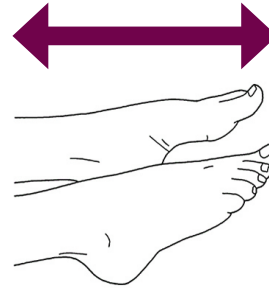
After your surgery

Physiotherapy

Following your operation you will be seen by a physiotherapist who will help you to get out of bed and walk for the first time. They will also discuss the exercises shown below with you. You should aim to do these exercises at least 4 times a day unless otherwise stated.

Exercise 1: Ankle pumps

When lying or sitting, bend and straighten your ankles briskly. Repeat this 10 times, (each hour for the first week).



Exercise 2: Static Quads

Lie or sit with your legs straight out in front of you. Pull your toes towards you and push your knees down firmly against the bed. Repeat this 10 times.

Exercise 3: knee flexion and extension

In the lying or sitting position, gently bend your operated knee by sliding your foot towards you. Bend your knee as much as is comfortable then slowly slide your foot forwards to straighten your leg again.



Keep your foot in contact with the floor or bed at all times. A carrier bag under your foot will help it to slide more easily. Repeat this 10 times.



Exercise 4: Knee extension

Sit on a chair with your foot resting on a stool. Leave your knee unsupported to let your leg straighten fully. Keep your leg in this position for up to 15 minutes or for as long as you are able. Repeat this every 1 to 2 hours throughout the day.

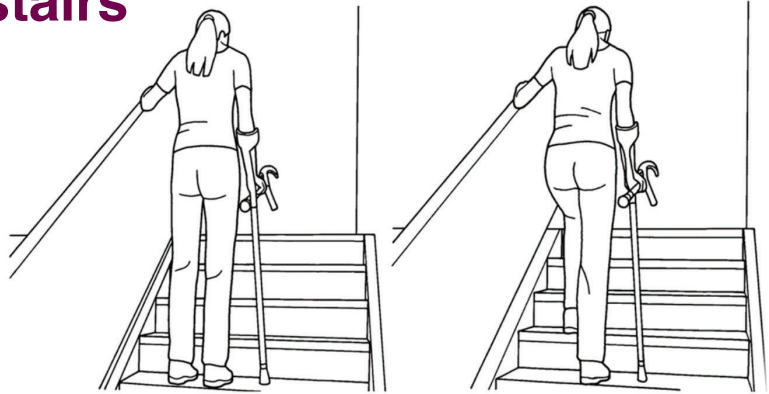
Walking after your ACL reconstruction

It is important that you can walk safely and comfortably following your ACL reconstruction. You will be provided with and shown how to use elbow crutches. They allow you to put less weight through your knee and protect it whilst it is healing. You should continue to use these until your surgeon or physiotherapist tells you to stop. If you have stairs or steps at home we will ensure that you can manage these safely with crutches.

How to go up and down stairs

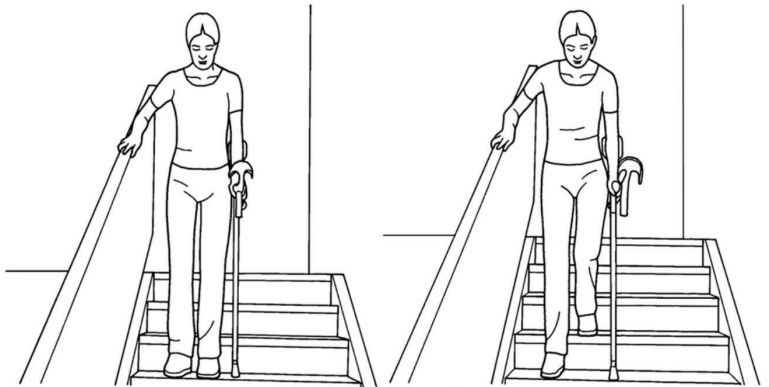
To go up a step or stairs

- Step up with your 'good' leg
- Then bring your operated leg up onto the same step
- Lastly bring your crutch(es) up onto the step



To go down a step or stairs

- Put your crutch(es) onto the step below
- Then put your operated leg down onto the same step
- Lastly bring your 'good leg' onto the same step



What happens when I go home?

At home it is important that you have plenty of rest. Only walk as necessary in the first week. Doing too much will increase the swelling in your knee and can delay your recovery. It is important to avoid unsupported lifting of your leg and twisting on your knee. You will need to support your operated leg when getting on and off a bed.

When resting your leg make sure your knee is straight and raised up on a stool or something similar. To reduce swelling and pain you can apply an ice pack to your knee for up to 20 minutes every 2 hours. Make sure you have a cloth (such as a tea towel) between the ice pack and your skin. (Ice packs cannot be used until the wool and crepe bandages have been removed and make sure splash-proof dressings are covering your wounds).

You should continue your exercises at home, you will begin your outpatient physiotherapy rehabilitation programme approximately 2 weeks after your operation.

Dressings

The wool and crepe bandages can normally be taken off 48 hours after your operation. You will have some small dressings under these, covering your wounds. You will be given spare dressings to go on top of any loose or blood stained dressings and some splash-proof dressings to protect these. It is important to keep the wound clean and dry. The nursing staff will advise you regarding having your wound checked and the removal of stitches. This will normally be 10 to 14 days following your operation and will be performed by the practice nurse at your GP surgery or in the orthopaedic clinic.

Clinic review

A follow-up appointment with your consultant's team will be made for you. You will receive details of this appointment in the post following your discharge from hospital. The appointment is generally 6 weeks following your operation.

Outpatient Physiotherapy

Your physiotherapist will arrange an outpatient appointment for you for approximately 2 weeks after your operation, at the hospital closest to where you live. You will be required to attend physiotherapy appointments for several months and continue your exercises regularly between these sessions.

Your outpatient physiotherapist will guide you through a strict rehabilitation programme which will allow you to progress your exercises and gradually increase your activity when suitable for you. It is important to follow your physiotherapist's advice to give your ACL reconstruction appropriate protection as it heals.

When can I return to work and driving

Your return to work will depend on the nature of your occupation. It is advisable to speak to your consultant about this and also when you can return to driving. The average time is around 6 weeks.

Returning to sports

You will be given guidance and advice by your physiotherapist and your surgeon. Return to racket sports and golf is generally at 9 months and contact sports at one year after your operation.

Frequently asked questions

If I have any questions who should I contact?

If you have any questions about returning to activities you can ask your surgeon or physiotherapist on the day of the operation. Use the notes section at the front of this leaflet to notes down these questions and any instructions given to you by your surgeon or physiotherapist.

What should I bring with me to hospital?

What to take

- This booklet
- All current medications in their original boxes
- Elbow crutches or walking sticks if you use them
- Flat trainers or shoes
- Mobile phones/books
- Telephone numbers of friends/relatives
- Glasses and case

Please do not bring

- Unnecessary jewellery
- Large sums of money
- Laptop computers
- Any other valuables

Please remove nail varnish and piercings.

Useful Contacts

Royal Bournemouth Switchboard:	01202 303626
Sandbourne Suite:	0300 019 6104
Ward 7:	0300 019 6276
Ward 12:	0300 019 4770
Derwent Ward:	0300 019 6223
Pre-Assessment:	0300 019 4102

Additional Notes

Exercise Images courtesy of RG PhysioTools

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Addressograph

Anterior Cruciate Ligament Reconstruction Acknowledgement of Understanding

I have read and understood this booklet with information regarding Anterior Cruciate Ligament Reconstruction. This includes:

- Risks to this surgery
- What to expect before my surgery
- What to expect from my surgery
- What to expect after my surgery
- Exercises and after care

Signed:

Date:

This sheet will be stored in your medical records before your surgery