



West Hertfordshire  
Teaching Hospitals  
NHS Trust



A guide to...

## Anterior Cruciate Ligament Reconstruction

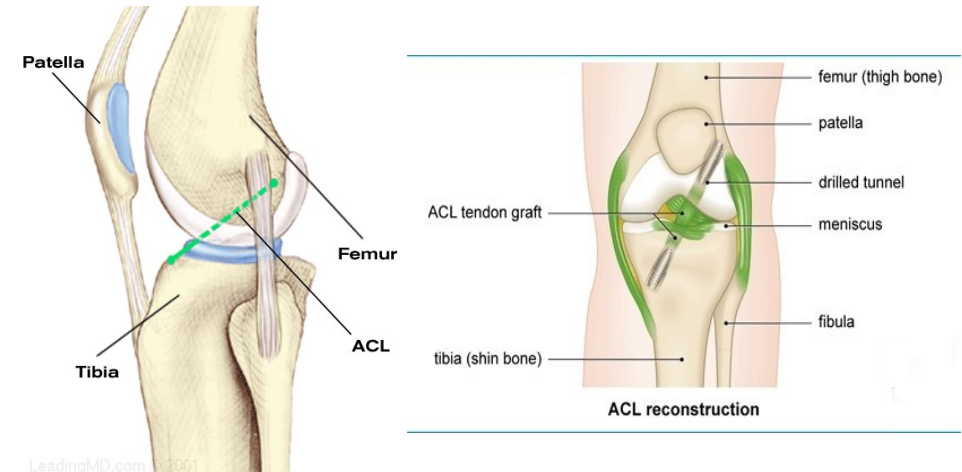
### *Patient information*

#### **Physiotherapy**

Watford General Hospital  
Hemel Hempstead Hospital  
St Albans City Hospital

### Introduction

The anterior cruciate ligament (ACL) resists rotation and forward / backwards displacement of the tibia / femur.



ACL reconstruction improves the stability and the function of your knee following an injury. It involves replacing the ACL in your knee, usually using a tendon from another part of your body.

### Advantages of day case ACL Reconstruction

The ACL reconstruction can be done as a **day case**. Historically patients who had ACL reconstructions, stayed in hospital for a least one or sometimes two nights.

However, modern surgical techniques, along with advances in pain management and rehabilitation methods have resulted in an improvement in the overall patient experience and outcome of ACL reconstructions as a day-case surgery across the world.

Patients who have already had this type of surgery as a day case in this hospital have been very satisfied with the process and were pleased to be back home on the same day.

## **Your journey with us**

Upon arrival to the hospital you will be admitted by the nursing staff and you will see your surgeon and anaesthetist. The physio-therapist may also go through the exercises and familiarise you with the appropriate walking aids. Once the final checks have been made the decision for you to proceed as a day case will be confirmed.

Your anaesthetic and surgery will proceed as planned and afterwards you will be temporarily monitored in the recovery area.

When it is safe to do so you will return to the ward and begin the recovery process.

This will involve:

- Managing your pain
- Physiotherapy input
- Reviewed by the surgical team
- Provision of the discharge medication and advice
- Information about when we will see you again and who to contact in an emergency.

## **Physiotherapy**

Whilst supervised physiotherapy is important, it should be remembered that physiotherapists can only guide the rehabilitation, they can not do the exercises for you.

Good motivation is key to the recovery and you have a very important contribution to make to the success of your surgery.

The objective is to leave hospital walking safely with crutches and taking as much weight as possible through the operated leg. Also you should be able to manage stairs with confidence.

You will be informed regarding how to control your swelling and the pain should be comfortably managed with analgesics.

The range of movement you need to aim for over the next two weeks is full extension (a straight knee) to approximately 90 degrees of flexion (knee bent to a right angle).

It is extremely important that full extension is achieved as soon as possible after surgery and that this should be maintained throughout the recovery period.

## **Open v Closed chain exercises**

It is important to protect the new ACL.

Closed chain exercises means having the lower leg / foot remain planted to the ground. This then provides joint stability and more strenuous strengthening without the degree of shearing forces. It is important to protect the new ACL, therefore closed chain exercises are recommended initially before starting open chain exercises at three months.

Your outpatient physiotherapist will discuss this further with you.

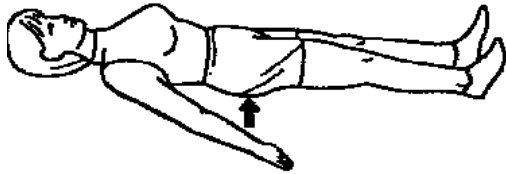
## Post operative knee exercises

The following exercises should be commenced following your operation.

It is very important to exercise **at least** three times a day. You might experience some pain after the operation, especially during exercises, but you will be given regular pain relief to help control this, and should use it as advised.

As the exercises become easier, gradually increase the number performed. If you have any questions regarding your exercises or experience an increase in pain, please discuss this with your physiotherapist.

1. Lying on your back, squeeze your buttocks firmly together. Hold for 5-10 seconds. Repeat 5-10 times.



2. Lying on your back, pull your toes towards you and tighten your thigh muscle, straightening your knee. Hold for 5-10 seconds. Repeat 5 -10 times.

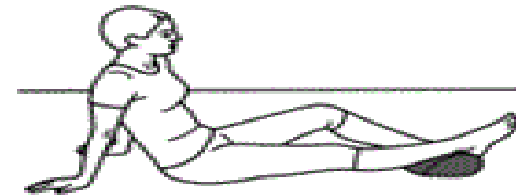


3. Lying on your back, bend and straighten your operated leg. Repeat 5-10 times.



4. Place your heel on a rolled towel and relax your knee in a straight position.

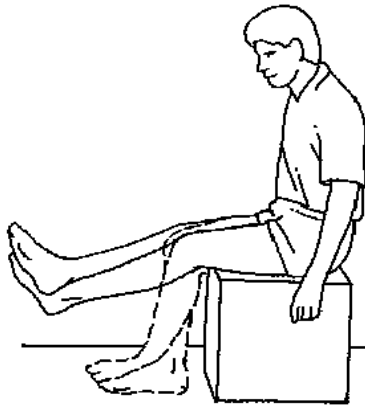
Tighten your thigh muscle, hold for five seconds. Repeat 5 - 10 times.



## Getting in and out of bed

During your recovery and until your muscles are stronger, it is important to protect; and to avoid putting excessive strain on your new ACL.

To help protect, when getting in and out of bed, you **must support and lift** your operated leg, using your non operated leg underneath.



## Elevation

Elevate your leg as much as possible to help reduce swelling. Ideally by relaxing on the bed.

## Stairs

### To go upstairs

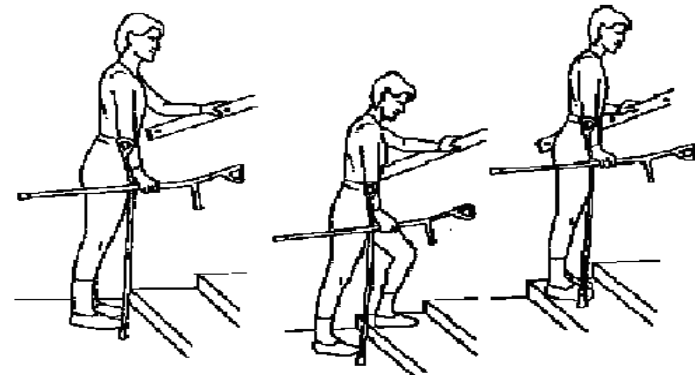
1. Good leg
2. Operated leg
3. Stick

### To go downstairs

1. Stick
2. Operated leg
3. Good leg

## Remember

Your crutch stays with the operated leg. Always use a banister with one hand if available



## Gait (walking)

The quality of your gait is an important part of your rehabilitation.

Please ensure that you have an even stride length with a heel toe gait pattern. Initially crutches are required for comfort and to help control the swelling.

If there are any other precautions and instructions your physiotherapist will advise you as appropriate.

## Ice

Ice can be used to help reduce the amount of swelling, and can help to relieve pain.

Do **not** use ice if you have cold allergies or circulatory problems. Do **not** put ice directly on the skin.

Before using ice make sure you have normal sensation on the knee.

At home apply a bag of frozen peas or crushed ice wrapped in a damp towel onto your knee.

Always rest the ice on top of your knee, never under your knee. It is normal for the area to go red and slightly numb during icing. After the ice has been on for five minutes check the skin. If you notice that the area has gone white remove the ice immediately.

If not, leave the ice in place for 20 minutes if you can tolerate it.

**Use ice at least three times a day especially after the exercises.**

## Your continued care on discharge

Following your return home, you are advised to take regular pain killers (and anti-sickness) medication if necessary, apply ice and follow the physiotherapy advice.

You will be referred for follow-up physiotherapy. Outpatient physiotherapy is very important as it will progress your recovery.

Full recovery can take six to nine months and will require compliance with a graded exercise programme, which your outpatient physiotherapist will guide you through.

You can expect some pain and stiffness after knee surgery and this is the same whether you are in hospital or at home.

Over the next few weeks the objective is to allow your knee to recovery from surgery, to allow the bruising and swelling to settle down and to regain confidence with walking, depending less on the crutches as time goes by.

## Returning to Work

If your job is sedentary and you are able to elevate your leg regularly throughout the day, you can return from two weeks.

## Sports

Please be advised by your outpatient physiotherapist as they can give specific guidance and advice on the return to your preferred / chosen sport.

## For guidance

- Swimming — between two and six weeks. Important to ensure your wound has fully healed.
- Cycling — between six and 12 weeks
- Running — between three and six months

Contact sports: Training can start at six months with return to play around nine months.

Full return to sports may take anything **up to 9 months**

## Dos and Don'ts

### Do

- Continue your exercises as instructed by your physio-therapist. You will need to continue to take your pain medication to allow you to do these.
- Apply your ice pack/frozen peas regularly.
- Take rests on your bed to elevate your knee.
- Contact your GP if there is increased pain or swelling in your calf.
- Contact your GP if you are worried about signs of infection in your knee e.g. red, hot and swollen and/or oozing wound.

### Don't

- Sit for too long as you may become stiff and find it difficult to get up and going again.
- Rest with a pillow under your knee.
- Walk with a stiff knee.
- Just stop taking your pain relief, start to wean off them slowly.

If you have any further questions, please feel free to ask your surgeon or any member of the team.

## Further information

Information on who to contact, i.e. web sites / telephone numbers of other departments / organisations which may be of help.

### How to contact us

West Hertfordshire Therapy Unit  
Jacketts Field  
Abbots Langley  
WD5 0PA  
01923 378 130

If you need this leaflet in another language, large print, Braille or audio version, please call **01923 217 187** or email **westherts.pals@nhs.uk**



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