

Anterior Cruciate Ligament Reconstruction

Patient information

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please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotowuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

Introduction

Getting weight bearing and full joint movement back as soon as possible are of most importance for successful rehabilitation.

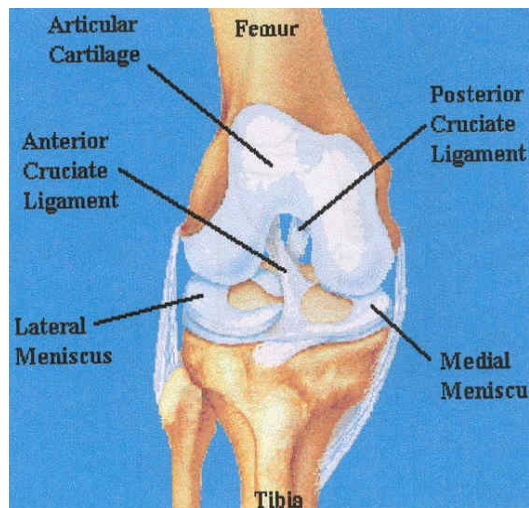
The major goals of Anterior Cruciate Ligament (ACL) surgery and rehabilitation are:

- To restore normal joint anatomy.
- To provide knee stability.
- To return to full function i.e. work and sport, as soon as possible.

It is very important that the patient takes an active part in rehabilitation both before and after the operation.

Notes

The knee joint



The Anterior Cruciate Ligament (ACL)

The knee is a complex joint which has the ability to bend and rotate slightly. Knee ligaments help to control motion, by connecting bones and bracing the joint against abnormal types of motion.

The ACL links the back of the femur (thigh bone) to the centre of the tibia (shin bone) and stabilizes the knee, mainly in the forwards and backwards direction.

Functions of the ACL:

- To resist forward movement of the tibia under the femur e.g. coming down a slope.
- To resist the lateral (outward) rotation of the femur on the tibia e.g. twisting and turning.
- To resist sideways movement of the knee joint.
- To help with balance and joint awareness – known as proprioception.

Mechanism of injury

Possible reasons for an ACL injury is a non-contact, twisting movement usually due to abrupt deceleration and change of direction. Side stepping, pivoting and landing from a jump are examples of events that may cause an ACL rupture.

An audible pop or crack, pain and giving way of the knee are typical initial signs, followed by almost immediate swelling due to bleeding inside the joint.

Some patients achieve satisfactory stability and function with non-operative treatment, through rehabilitation and adjustments to daily activities and sport.

However, chronic ACL injuries may result in gradual damage to the cartilage and early joint degeneration.

ACL reconstruction is not an emergency operation. Delaying surgery until you have a full range of movement, significantly reduces the chances of having problems post-operatively. Delaying early surgery also allows you to be mentally better prepared for surgery and gives you time to learn, fully understand and practice suitable pre-operative exercises.

A complete tear of the ACL has minimal ability to heal and often requires surgical reconstruction. This involves replacing the torn ligament, either with the hamstring tendon or the middle third tendon below the knee.

Fastening the graft to the bone with fixation implants provides a secure fixation that enables early accelerated progressive rehabilitation to take place.

Surgery is followed by several months of rehabilitation to restore normal range of movement, strength, flexibility and balance.

Possible complications

Pain, bleeding, infection to the wound, Deep Vein Thrombosis (DVT).

Infection control request

Preventing infections is a crucial part of our patients' care. To ensure that our standards remain high, our staff have regular infection prevention and control training and their practice is monitored in the workplace.

We ask patients and visitors to assist us in preventing infections, by cleaning their hands at regular intervals and informing staff of areas within the hospital that appear soiled.

Rehabilitation

If you have any concerns or questions regarding your rehabilitation, please contact.

H ward Ormskirk 01695 656 632

Inpatient physiotherapy team 01695 656 861

Physiotherapy department 01704 704 962

Email: soh-tr.jointhealth@merserywestlancs.nhs.uk

Out patient Physiotherapy

You will be referred to outpatient physiotherapy by the ward physiotherapy team, and contacted at a later date with your physiotherapy appointment.

If you have not heard from the outpatient physiotherapy department within a week please contact them directly on: 01704 704 962

This patient information leaflet is intended to be used to support discussions during your clinical consultation. If there is anything you do not understand or are unsure about, please ask the doctor at your appointment or contact your physiotherapist.

Once you no longer require your elbow crutches, please return them to the Physiotherapy department or H ward.

Deep Vein Thrombosis

Following surgery, there is an increased risk of getting a blood clot or DVT, most commonly in your calf, thigh, pelvis or arm although this could occur in any muscle.

Signs of DVT

- Localised pain in a specific muscle.
- Sudden increase in swelling of the soft tissue above or below the joint.
- Increase in temperature in the area of pain.
- Redness in the local area.

Unfortunately DVT can be present without these signs and similarly, the presence of these signs does not always indicate DVT. If you suspect any signs of DVT, please seek urgent medical advice.

Before the operation

Pre-operative physiotherapy is extremely important for the successful outcome of ACL reconstruction. Regaining a full range of movement, strength and balance before the operation minimises post-operative problems.

Day of the operation—until discharged from the ward

- The majority of patients are discharged on the day of surgery.
- A nerve block may be used to help with pain relief.
- You will have a bandage on your knee.
- It is important to maintain your circulation to reduce the risk of developing DVT. You can do this by briskly pedalling your feet up and down.
- A rolled up towel will be placed underneath your heel to allow your knee to fully straighten. This is very important after this operation.
- Static quadriceps exercises commenced.
- Passive extension exercises using a rolled up towel under the heel.
- Straight leg raise exercises commenced.
- Start basic balance exercises.
- Closed chain knee flexion taught before discharge.
- Mobilise knee cap.

Note

Everybody recovers at different rates. If you have any worries or queries regarding your operation and subsequent rehabilitation, do not hesitate to speak to your physiotherapist.

These exercises should only be carried out following instruction from a chartered physiotherapist. All exercises should be performed slowly and in a controlled manner. Stop if any exercise causes any pain and discuss it with your physiotherapist.

If you have any concerns about your wound or surgery, please contact the physiotherapy department or the ward you were admitted on.

Physiotherapy department	01704 704 962
H ward	01695 656 903
F ward	01695 656 031

Your physiotherapist on the ward was:

Returning to work, driving and sport

This will be advised by your physiotherapist and consultant. Approximate time scales would be:

- 4-6 weeks before returning to a less active job.
- 6 weeks before driving.
- 12 weeks before returning to a more active job.
- 9-12 months before returning to contact sport, only after consultant agreement. However, it still takes an additional 2-4 months of training and playing a specific sport without restrictions, before patients feel that they are back to pre-injury level.
- Swimming (no breast stroke kicks) 6-12 weeks.
- Cycling (on normal bicycle) 6 –12 weeks.
- Jogging (on the flat—not downhill) 6-12 months.

- Mobilise partial weightbearing with elbow crutches (these are usually required for 2-3 weeks). This means you can put part of your weight on the operated leg, using the help of crutches. Using crutches will prevent you walking with a limp and take some of the pressure off your knee.
- Stair practice taught before discharge.
- Weight transference onto operated leg, as advised by your physiotherapist.
- Ice may be used to aid the reduction of swelling and heat (once the bandage has been removed).
- Remove the large bandage after 48 hours but keep your wound clean and dry. Leave the smaller dressings underneath your bandage on.
- Do not get your wound wet until the wound is fully healed

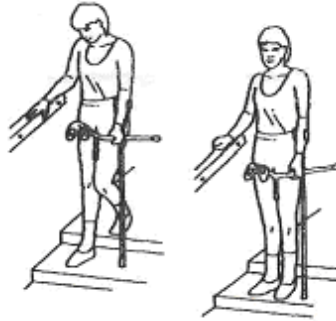
After discharge

- Maintain knee 90 degree flexion and full extension.
- Mobilise patella (knee cap).
- Mobilise partial weight bearing with elbow crutches.
- Begin outpatient physiotherapy.
- Progress knee exercises as advised by your physiotherapist.

Stairs using your crutches

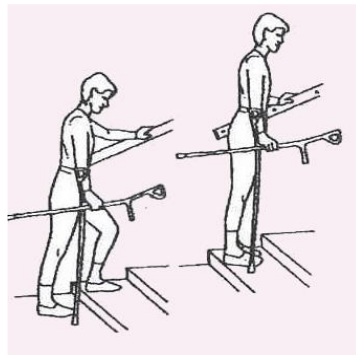
Going down

- First put your crutch on the step down.
- Then take a step with your operated leg.
- Then take a step down with your unoperated leg, onto the same step as your operated leg.
- Always go one step at a time.



Going up

- First take a step up with your operated leg.
- Then take a step up with your unoperated leg.
- Then bring the crutch up on the same step.
- Always go one step at a time.



Benefits of ice

After your operation and your bandage is removed you may find ice helps

- Decrease pain.
- Decrease temperature.
- Decrease muscle spasm.
- Decrease swelling.
- Promote repair.

How to apply ice

- Thoroughly expose the area to be treated.
- Fill a small plastic bag with ice cubes or use a packet of frozen vegetables.
- Wrap the area to be iced in cling film and wrap ice cubes/ frozen veg bag in a damp towel to prevent ice burns.
- Place the ice pack onto the area to be treated and leave for no longer than 20 minutes.
- Remove the ice pack at regular intervals to inspect the skin. If it is fiery hot, do not re-apply and consult your physiotherapist.

After applying ice you should allow 2-3 hours for your skin to regulate in temperature before applying the ice again.

Closed chain knee extension

- Keeping your foot in contact with the floor at all times, slide your leg back under the chair until your knee reaches approximately 90 degrees— do not bend your knee past 90 degrees for 6 weeks after your operation and until advised by your physiotherapist.
- Repeat 10 times, 4 times a daily.



Your physiotherapist will explain these exercises to you.

Pain relief

Take your pain medication. You should expect a moderate amount of pain after your surgery. Make sure you keep taking the pain relief medication prescribed by your ward doctor. It is important to control your pain well so you can do your exercises and be able to walk regularly throughout the day

Exercises

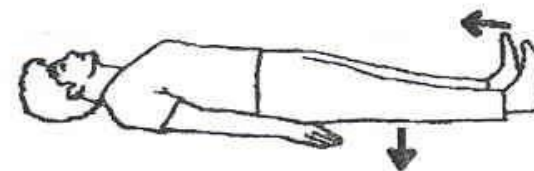
You will be taught these exercises by your physiotherapist and can commence them as soon as your physiotherapist advises.

It is very important you follow the advice from your Physiotherapist to achieve the best outcome.

The exercises are aimed at improving your strength, balance and range of movement (ROM).

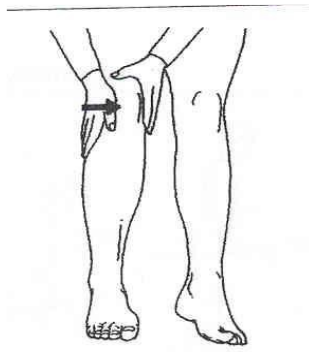
Static quads

- Lying with your back supported and your legs out straight.
- Pull your foot up and press your knee down into the bed (squeezing your thigh muscles).
- Hold for 5 seconds and relax.
- Repeat 30 times, 4 times a day.



Patella (knee cap) mobilisation

- Sit with your legs straight.
- Put your finger and thumb either side of your knee cap.
- Slowly move your knee cap from side to side.
- Repeat 10 times, 4 times a day.



Straight leg raise

- Lying or sat up with your back supported keep your operated leg straight out in front of you. You may bend your unoperated leg if you wish.
- On your operated leg tighten your thigh muscles, keep your leg straight and lift your leg off the bed 15 to 20 cm.
- Repeat 10 times, 4 times a day.



Passive knee extension

- When lying and resting.
- Keep your legs out straight in front of you, place a rolled up towel under your heel, to encourage full extension.
- Attempt this position for 30 minutes, 4 times a day.

