

Physiotherapy Service

ACL Reconstruction

A Patient Guide to Rehabilitation

Introduction

The main goal of this surgery is to restore normal joint anatomy and to provide you with a stable knee so that you can return to work and sport.

It is vital that you follow the rehabilitation programme. The best surgery can be undone by overdoing it (progressing too quickly) or by not doing enough which can lead to a stiff, weak knee.

The Anterior Cruciate Ligament (ACL) keeps the knee stable in the forwards and back direction. Some people, even after injury, can keep this stability by extra strengthening and balance work. However, with some the knee stays unstable, especially when changing direction suddenly.

Surgery

ACL reconstruction is not an emergency operation. The surgery is best left until the knee bends freely and there is no swelling.

The surgery helps to control the feeling of giving way by reducing too much movement between the two bones (Tibia and Femur). Our surgeons use the hamstring tendon graft, which is the best operation for people who need to be able to kneel and who have experienced pain around the knee cap.

Operations are usually carried out as a day case either in Exeter or Sidmouth.

Complications

- 1) **Failure** – 5% of grafts fail or rupture. However, 85% of people return to competitive contact sport.
- 2) **Loss of movement** – 1% will not achieve full movement of the knee.
- 3) **Infection** – 1% risk an infection in the knee which needs treatment.

Rehabilitation before your operation

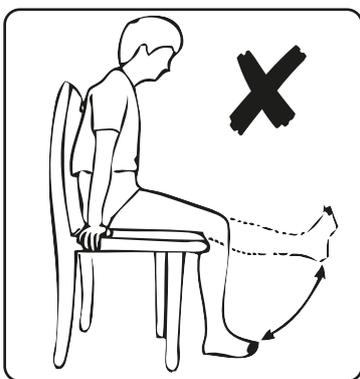
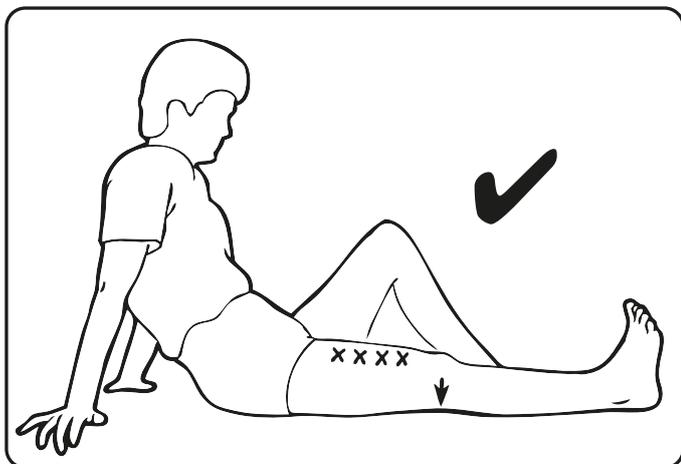
- You should know and be practicing ACL specific exercises (closed chain exercises as explained by a physiotherapist).
- Your knee should have full movement.
- Skin problems around your knee (wounds and cuts) will delay or prevent your surgery.
- Tell us if you have any allergies or medical problems.

After the operation

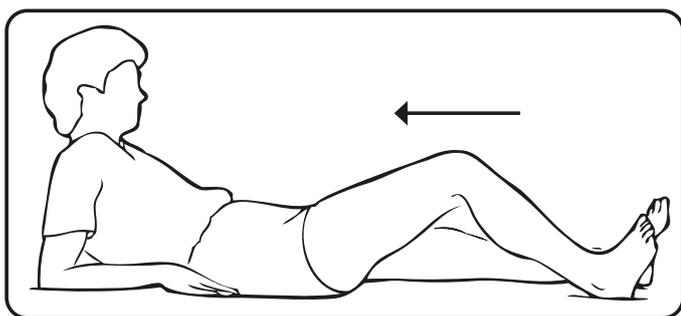
- You will have regular pain control as arranged by your surgeon.
- Exercises will be shown by a member of the physiotherapy team.
- You will walk with crutches for **at least 2 weeks**.

Exercises

- 1) **Straightening your knee** – this can be started straightaway on the bed. This exercise is called static quads. When done with a rolled up towel under the heel it is called a 'knee hang'.



- 2) **Bending your knee** – aiming for a right angle bend (90°) after a few weeks.



- 3) **Walking** – using elbow crutches taking half your body weight through the leg. This is called partial weight bearing.
- 4) **Balance (proprioception) exercises.** Holding onto a solid table or chair. Stand on the operated leg for a few seconds at the time. Progress by increasing the time and closing your eyes. **Make sure you are safe!**

- 5) **Patella (kneecap) movements.**

Lie with your knee straight, move the kneecap from side to side with your hands. Make sure your thigh muscles are relaxed otherwise you will not be able to move it very much.

Precautions

- **Stop doing any exercise that causes sharp pain and / or swelling.**
- **Do NOT perform open chain exercises** (as explained by the physiotherapist).

At home

- Continue with all the exercises.
- Continue to take all pain control tablets.
- Continue icing if still swollen.
- Keep using your crutches for at least 2 weeks.
- **When you leave hospital a local physiotherapist will be contacted and they will arrange to see you to progress the exercises.**

These will include (not before three weeks):

Strengthening exercises

Sit to stand work, step ups, dips and exercise bike if available.

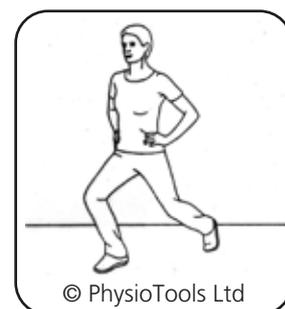


Stand behind a chair and support yourself with both hands.

Slowly bend your hips and knees, trying to push your bottom back. Your knees should be above your toes. Do not let your knees turn in or out during the movement.

Stand straight.

Take a step forward and bend your knees. Return to the starting position. Do not let your knees turn in or out.



Stand on a step board.

Bend one knee and straighten your other leg behind you. Do not let the bent knee turn in or out at any point in the movement. Return to the starting position.



Range of movement exercises.

To achieve full bend by 3 months.

After 3 months you will see the consultant for a check-up and then be progressed to include:

- Cycling on normal bike (not off road).
- Jogging – on the flat or preferably slightly uphill.
- Agility work.
- Training for specific sports - when you return to contact sports depends on many factors and is therefore discussed with your surgeon at the 6 month review.
- It may take up to a year before you feel you are back to the level you were before injury.

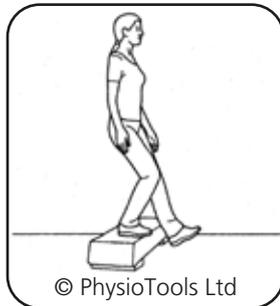


Static bike only - not outdoors

Moderate resistance

Stand on one leg on a step facing down.

Slowly lower yourself by bending your knee to 30 degrees. Return to starting position.



*If you have any questions about the operation or rehabilitation for this surgery, please contact **Aftercare (01392 403509)**.*

Balance exercises

As before but harder, use of wobble board if available.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

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