

ANTERIOR CRUCIATE LIGAMENT (ACL) RECONSTRUCTION

You have had an operation to reconstruct your anterior cruciate ligament (ACL). This helps stability within the knee and enables return to a higher level of activity.

This information sheet is designed to explain your surgery and guide you through your rehabilitation, as well as providing timeframes for return to certain activities.

The ACL is one of the four major ligaments of the knee; it resists forward movement of the shin in relation to the thigh bone.

Surgical treatment of the torn ACL involves an arthroscopic (keyhole) surgical reconstruction of the injured ligament usually using tissue from another part of your body; usually the hamstring tendon or patella tendon.

Aims of Physiotherapy Rehabilitation

Acute Phase:

- Full weight bearing at two weeks
- Reduce swelling
- Gain full range of knee movement especially extension
- Improve muscle strength and activity

Mid Phase:

- Good gait pattern
- Improve balance reactions
- Continue to improve muscle strength and bulk

Last Phase:

- Return to functional activities and sport

Weight Bearing

You may be non or reduced weight bearing for two weeks following surgery and may progress off elbow crutches once you have achieved a straight leg raise as directed by your physio.

Ice

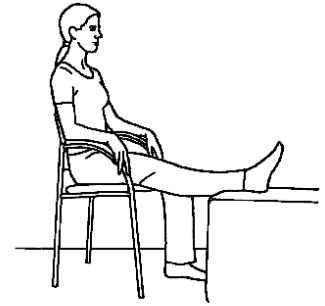
This is to reduce swelling and should be done regularly throughout the day during the acute phase and can be used at any time should you have an increase in swelling.

Range of Movement Exercises

Extension:

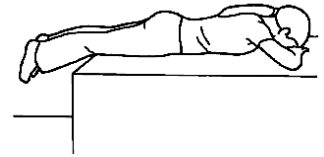
- In sitting, rest your foot on a stool. Put a weight over your knee to encourage extension.

Hold _____ seconds Repeat _____ times daily



- Lie face down and let the weight of your feet straighten your knee. You can add a weight to the ankle to increase the stretch.

Hold _____ seconds Repeat _____ times daily



Flexion:

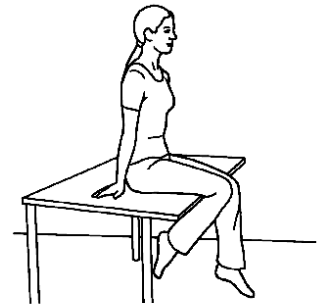
- Lie on your back and pull knee up towards you

Repeat _____ times _____ times daily



- Sit over the edge of a table and bend knee under the table, you can use the other leg to push it back.

Repeat _____ times _____ times daily



Core and Hip Strength

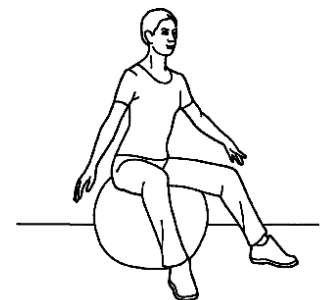
- Lie on your back, knees bent as shown. Tilt your pelvis backwards and squeeze your buttock muscles tight. Lift your bottom a few inches off the floor.
- Progress this exercise, by placing your calves onto a gym ball and repeat as above.
- Progress as above by bending your knees to bring the ball towards you, push away slowly in a controlled fashion to return to the start position. Slowly lower yourself back onto the floor.

Repeat _____ times _____ times daily



- Sit on a gym ball and keep your torso centred. Progress by raising a foot a few inches off the floor.

Repeat _____ times _____ times daily



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Muscle Strengthening Exercises

The stronger your muscles the better protected your knee is. The main muscle groups to focus on are the quadriceps and the hamstrings as well as some work on the hip and core stability. Here are some examples of exercises that your physiotherapist can help you with.

Quadriceps

- Push your knee into the bed/floor and feel your thigh muscles tighten. Hold 10 seconds.

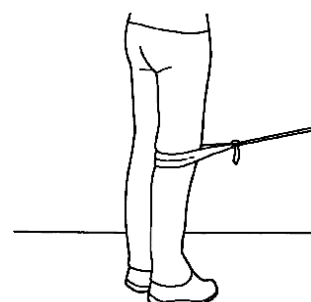
Repeat _____ times _____ times daily

- Tie theraband to an immovable object and step into the band so it sits above your knee when your knee is slightly bent. Straighten your knee pushing against the band, and making sure that your thigh muscles tighten.

Repeat _____ times _____ times daily

- Lie face down and put your weight through your toes, tucked underneath you. Push your knee up to the ceiling to tense and straighten it. Hold 10 seconds.

Repeat _____ times _____ times daily

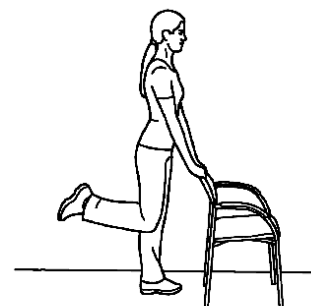


Hamstrings

- Stand supporting yourself and bend your knee behind you, lower down with control.
- Progress this exercise by adding a weight to the ankle.

Repeat _____ times _____ times daily

- Sit on a wheeled chair or stool and pull yourself along with your affected leg

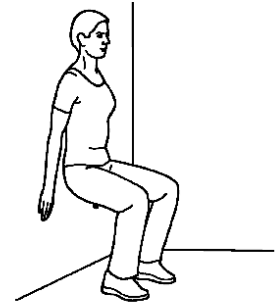


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Functional and Balance Exercises

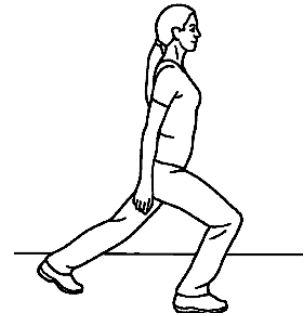
- Stand with your back supported against the wall and with your feet six inches away from the wall. Pull in your tummy muscles and slide down the wall.
- Progress this exercise by standing on your affected leg only.

Repeat _____ times _____ times daily



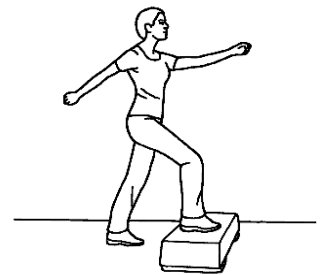
- Stand with feet hip width apart. Lunge forward with your affected leg leading, try to keep your knee over your second toe, so that your thigh does not move inwards.

Repeat _____ times _____ times daily



- Step up onto a block or step, leading with your affected leg.

Repeat _____ times _____ times daily

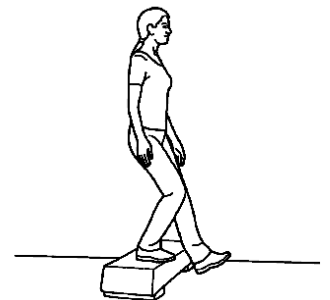


- Alternate step overs, keeping affected leg on the step and stepping forwards and back over a set or block with the unaffected leg.

Repeat _____ times _____ times daily

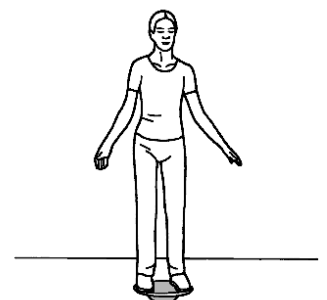
- As above, but stepping sideways.

Repeat _____ times _____ times daily



- Stand on the wobble board and try not to let the sides touch the ground. Progress to standing with only your affected leg in the centre of the board. Alternatively, at home you can stand on one leg on a pillow, or in the middle of your bed.

Repeat _____ times _____ times daily



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Points to Remember:

The graft re-vascularises at around 6 to 10 weeks, at this point it is at its weakest and you must take care not to be too aggressive with your exercises at this stage.

The physiotherapist will tell you which exercises are not appropriate because of the increased leverage across the knee.

Going to the Gym

Once you have seen your physiotherapist and are ready you may attend a gym to undertake the following activities:

- Exercise bike
- Cross trainer (heels flat)
- Rowing machine
- Walking on treadmill

Return to Activity

Below is a guide that will give some idea when you can return to certain activities. However this is dependant on your recovery and will be guided by your physiotherapist.

Ten Weeks

- Swimming (not breaststroke)

Twelve Weeks

- Running

Six months (activities involving pivot action)

- Squash
- Tennis
- Golf
- Active sailing

Nine to twelve months (contact activities and high velocity actions)

- Football
- Hockey
- Martial Arts
- Horse riding
- Rugby
- Windsurfing
- Kite surfing
- Skiing

Contact details

Physiotherapy Out-Patient Team, Therapy Services Department
Tel: 01202 442121

For further general health-related information, please ask the relevant department for an Information Prescription or contact:

The Health Information Centre

Poole Hospital NHS Foundation Trust
Longfleet Road
Poole
Dorset
BH15 2JB
Telephone: 01202 448003

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The Chartered Society of Physiotherapy
14 Bedford Row
London WC1R 4ED
Telephone: 0207 3066666

www.csp.org.uk

Author: Kate Wallace (SJ)
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Ward sister/HOD: Hilary Hall

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