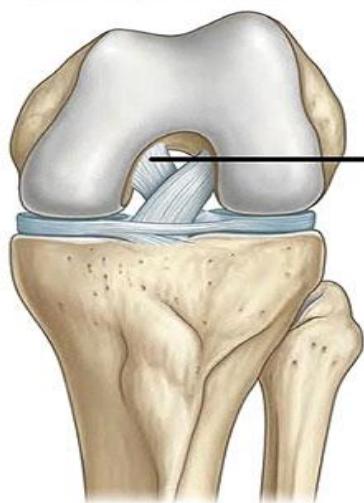


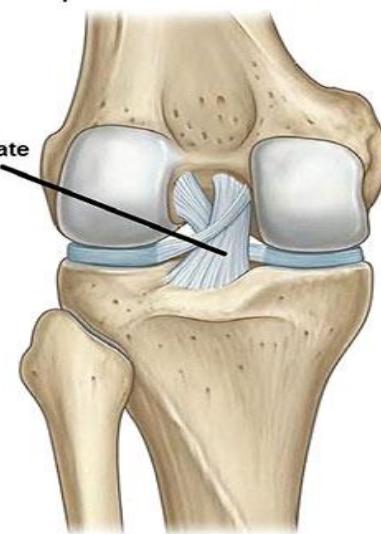
# PATIENT INFORMATION

## Posterior Cruciate Ligament Reconstruction

anterior view of left knee



posterior view of left knee





## **POSTERIOR CRUCIATE LIGAMENT (PCL)**

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

The Posterior cruciate ligament (PCL) tends to be the strongest ligament in the knee. It extends from the top-rear surface of the tibia (shin bone) to the bottom-front surface of the femur. This ligament prevents the tibia from moving too much and going behind the femur.

A PCL injury is a partial or complete tearing or stretching of the posterior cruciate ligament. The PCL is usually injured by over extending the knee. This can happen if you land awkwardly after jumping. The PCL can also become injured from a direct blow to the flexed knee, such as falling hard on a bent knee. Most PCL injuries occur with other ligament injuries and severe knee trauma. You may present with swelling, pain and instability of the knee joint.

If a PCL injury is suspected you may be assessed by a Physiotherapist or Orthopaedic Consultant and referred for a scan to determine the severity of the injury and diagnose your symptoms.

Some people can function satisfactorily without a PCL by working on a programme of intensive rehabilitation. If symptoms of knee instability persist, a reconstruction of the ruptured ligament is often necessary.

If surgery is required the aims are:

- Improved knee stability
- Improved function/mobility
- Reduced pain
- Recovery of function and return to previous level of sport.

## **WHAT IS PCL RECONSTRUCTION SURGERY?**

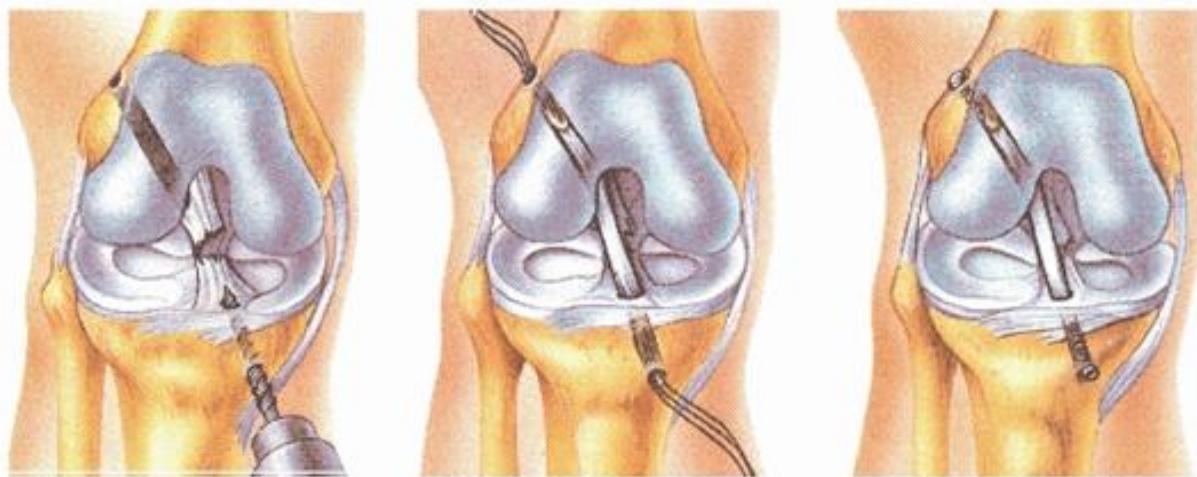
Your surgeon will explain the specific technique that they adopt when performing this surgery.

The operation involves using part of your hamstring/gracilis tendons (from the inner aspect of your knee) to replace the torn PCL inside your knee joint. Occasionally an artificial ligament is used.

During the reconstruction a small incision (cut) is made over the upper and inner part of your shin to harvest (remove) the tendon which is to be used for your graft. Further small incisions are made around your knee to insert the arthroscope.

The arthroscope is introduced into the knee and the remnant of the old PCL is cleared. Tunnels are then carefully drilled in both the tibia and femur to allow the graft to be passed through the knee and secured at either end.

If other knee trauma is evident sometimes a PCL reconstruction is completed at the same time as other surgery such as an anterior cruciate ligament reconstruction or meniscectomy.



PCL SURGERY

## DEEP VEIN THROMBOSIS

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

## SIGNS OF A DVT

1. **PAIN.** Localised pain in a specific muscle.
2. Sudden increase in **SWELLING** of the soft tissue below the joint.
3. Increase in **TEMPERATURE** in the area of pain.
4. **REDNESS** in the local area.

Unfortunately, a DVT can be present without these signs and similarly the presence of these signs does not always indicate a DVT.

**IF YOU SUSPECT ANY SIGNS OF A DVT, PLEASE SEEK URGENT MEDICAL ADVICE.**

## **POSSIBLE COMPLICATIONS**

- Pain
- Bleeding
- Infection to the wound
- Deep vein thrombosis
- Graft Failure
- Failure to restore knee stability
- Failure to improve pain

Prior to your surgery you will sign a consent form and your Consultant will discuss / answer any questions for you.

## **BEFORE THE OPERATION**

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

## **ON ADMISSION**

On admission to the ward you will be shown to your bed area, where you may put your belongings. Cupboards are available for clothing.

### **What to bring with you**

- Toiletries, nightwear/dressing gown.
- A pair of shorts, loose fitting trousers or knee length skirts and t-shirts or comfortable tops.
- Comfortable walking shoes or trainers.
- Slippers – ensure they have a “back” around the heel

- **Important** – Please bring all your regular medication with you to hospital.

You will be seen by a nurse who will go through the admission documentation.

You will be seen by a Doctor who will assess your fitness for surgery and who will discuss your medical history.

You will be seen by an Anaesthetist prior to surgery.

At this stage, any worries or queries you have will be discussed.

You may consume non-clear fluids and a light diet for a minimum of six hours prior to surgery, clear fluids for a minimum of 2 hours.

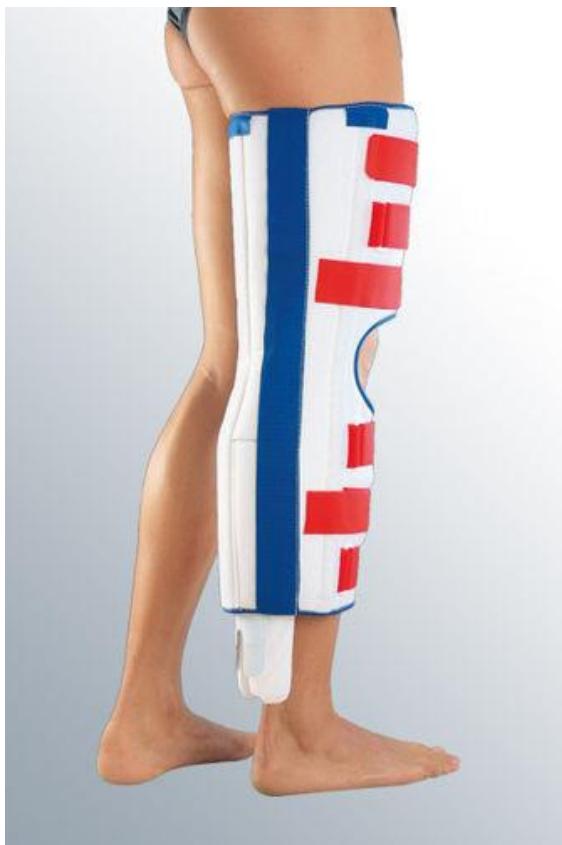
## **AFTER YOUR OPERATION**

- It is likely you will have your surgery under a general anaesthetic (where you are put asleep). A femoral nerve block may also be used to help with pain relief.
- You will require a straight leg knee brace which will be fitted by the Physiotherapist. This must be worn at all times for the first couple of weeks, at which point the physiotherapy team will ask you to come into the hospital to be fitted for a JACK brace. The Physiotherapists will set the parameters of the brace accordingly.
- You must complete your exercises with your brace on and the brace must be kept on whilst you sleep. Only unfastening the brace to check your skin for pressure areas.

- It is important to maintain your circulation to reduce the risk of developing a deep vein thrombosis. You can do this by briskly pedaling your feet up and down.
- Static quadriceps exercises commenced.
- Straight leg raise exercises commenced.
- Cryocuff may be used (ice and compression) to aid the reduction of swelling and heat.
- Usually you will mobilise non- weight bearing with elbow crutches and the leg brace.
- Stair practice taught before discharge.
- The majority of patients are discharged the day of surgery or the day after.

## **AFTER DISCHARGE**

- Wear your knee brace as advised by your Physiotherapist, day and night.
- Mobilise with elbow crutches non-weight bearing
- Progress the number of repetitions of your exercises as advised by your Physiotherapist.
- You should only drive when your consultant has agreed you are able to do so.
- You will be contacted by the Physiotherapist to arrange an appointment to come in for the JACK brace to be fitted approximately 2 weeks after your operation.
- You will usually wear the JACK brace all the time including exercises and to sleep for 24 weeks or until your Consultant or Physiotherapist advises otherwise
- Initially the brace will be locked straight (in extension) and adjusted accordingly
- An outpatient Physiotherapy appointment will then be arranged to progress your rehabilitation. Over the first few weeks you will aim to gradually improve knee range of movement, strength, weight bearing, gait, balance and function.



Post op extension brace



JACK brace

## **CRUTCHES** Always wear your leg brace

### **To sit:**

1. Make sure you are close to the chair so you can feel it on the backs of your legs
2. Get your balance on your good leg so your injured leg is off the floor
3. Take the crutches off your arms
4. Hold both the crutches in one hand by the handgrips
5. Feel for the arm of the chair with the other hand
6. Lower yourself into the chair

### **To stand:**

1. Hold crutches in one hand by the handgrips
2. Push up on the arm of the chair with the other hand to stand onto your good leg
3. Stand up and slip your arms through the arm clasps

Never sit down or stand up with the crutches on your arms.

### **Walking:**

1. Keep your elbows into your sides
2. Place crutches forwards shoulder width apart
3. Lean on the crutches so they are used to take the weight off the injured leg
4. Step through with the good leg
5. When you have your balance, repeat stages 1- 4

### **Stairs:**

If safe to do so, you will be shown how to negotiate the stairs before you are discharged home. Always ensure your leg brace is on. Any questions or concerns please contact your Physiotherapist.

## Ascending:

1. Keep the operated leg off the floor and **behind** you
2. Step up one step with your un-operated leg
3. Move your crutches onto the same step and repeat as required

## Descending:

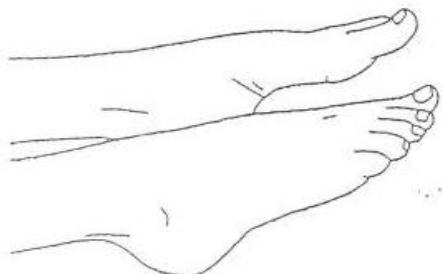
1. Keep the operated leg off the floor and in **front** of you
2. Move your crutches down one step
3. Move your un-operated leg onto the same step

Always go one step at a time

## EXERCISES

### Foot and Ankle Movement

- Sitting or lying wiggle your toes, pump the foot up and down and circle the ankle in each direction.
- Repeat 20 times, 4 times a day.



## **Static Quads**

- **Keep your knee brace on.** 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 second and relax.
- Repeat 30 times, 4 times a day.



## **Static Gluteal muscle**

- **With your knee brace on.** Lying with your back supported and your legs out straight or in a sitting position.
- Tense the buttocks, squeezing them together for 5 seconds, repeat 10 times, 4 times a day



## **Straight Leg Raise**

- **With your knee brace on.** Lying with your legs supported and your legs out straight.
- On your operated leg tighten your thigh muscles, keep your leg straight and lift your leg off the bed 4 – 6 inches.
- Repeat 10 times, 4 times a day.



**Complete all these exercises 4 times a day keeping your brace on your leg**

## **BENEFITS OF USING ICE**

Ice may be used to:-

- decrease pain
- decrease temperature
- decrease muscle spasm
- decrease swelling
- promote repair

N.B. If the joint or part affected is swollen, the ice pack can be applied with the part elevated and supported.

## **HOW TO APPLY THE ICE**

**STEP 1:** Thoroughly expose the area to be treated.

**STEP 2:** Fill a small plastic bag with ice cubes or use a packet of frozen vegetables.

**STEP 3:** Wrap the area to be iced in cling film and wrap ice cubes/frozen vegetables in a damp towel to prevent ice burns.

**STEP 4:** Place the ice pack onto area to be treated and leave for no longer than 20 mins.

**STEP 5:** Remove the ice pack at regular intervals to inspect the skin for ice burn. If it is fiery red or 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.

## **PRECAUTIONS**

If you are diagnosed with, or worried about an infection, deep vein thrombosis or have decreased sensation over your knee, **DO NOT APPLY ICE.**

## **ICE BURNS**

These occur very easily but can be avoided if simple precautions are followed.

Remove the pack if it becomes too painful (some degree of discomfort can be expected but this should not be excessive)

## **Milestones**

- You will be non weight bearing on crutches for approximately 6 weeks. Once agreed by your Consultant and advised by your Physiotherapist you will be able to commence partial weight bearing with your crutches.
- You will be required to wear a JACK brace for approximately 24 weeks.
- Work – please follow your Orthopaedic Consultant's advice regarding returning to work, sport and driving

## **NOTE**

**Everybody recovers at different rates. If you have any worries/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 with your physiotherapist.**

**If you have any concerns about your wounds or surgery, please contact the Physiotherapy Department or H Ward on the following numbers:**

**(01695) 656861, Physiotherapy Team Ormskirk Hospital  
(01695) 656603 H Ward, Ormskirk Hospital**

**Your Physiotherapist on the Ward was:**

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## **IMPORTANT**

**You will be contacted by the physiotherapy team to arrange an appointment to come in to Ormskirk Hospital for your JACK brace to be fitted approximately two weeks after your operation. If you have not heard from the Physiotherapy team in this time please call them on (01695) 656861**

This patient information leaflet is intended to be used to support discussion 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 the people in the physiotherapy department on the number given.

**Once you no longer require your elbow crutches, please return them to the Physiotherapy Department at either Ormskirk or Southport hospital.**

**During your contact with us, it is important that you are happy with your care and treatment. Please speak to a member of staff and/or the ward/department Sister/Charge Nurse if you have any questions or concerns.**

## **REHABILITATION**

If you have any concerns or questions regarding your rehabilitation, please contact the Therapy Team Lead on 01695 656861 or the Head of Therapy and Rehabilitation Services on 01704 704147.

## **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.

As a patient there may be times that you are unsure whether a staff member has cleaned their hands; if in doubt please ask the staff member and they will be only too happy to put your mind at ease by cleaning their hands so that you can see them.

## **SPECIAL INSTRUCTIONS FOR AFTER YOU HAVE LEFT HOSPITAL**

Contained within leaflet – any concerns please contact your Consultant or Physiotherapist

### **ANY CONDITION SPECIFIC DANGER SIGNALS TO LOOK OUT FOR:**

Following surgery, there is an increased risk of getting a blood clot or DVT (Deep Vein Thrombosis) in your calf, thigh, pelvis or arm. While you are on the ward you will be provided with a DVT patient information leaflet. If you have any concerns, please contact the numbers below or attend A&E.

### **CONTACT INFORMATION IF YOU ARE WORRIED ABOUT YOUR CONDITION AFTER YOU HAVE LEFT HOSPITAL**

**(01695)656861 for Ormskirk patients  
(01704) 704150 for Southport patients**

### **OTHER USEFUL TELEPHONE NUMBERS/CONTACTS:**

NHS 111

Stop Smoking Helpline (Sefton) - 0300 100 1000

Stop Smoking Helpline (West Lancashire) - 0800 328 6297

**[www.nhs.uk](http://www.nhs.uk)**



**Please call 01704 704714 if you need  
this leaflet in an alternative format**

**Southport and Ormskirk Hospital NHS Trust**

Ormskirk & District General Hospital  
Wigan Road, Ormskirk, L39 2AZ  
Tel: (01695) 577111

Southport & Formby District General Hospital  
Town Lane, Kew, Southport, PR8 6PN  
Tel: (01704) 547471

**FOR APPOINTMENTS**

Telephone (01695) 656680  
Email [soh-tr.appointments@nhs.net](mailto:soh-tr.appointments@nhs.net)

Please remember to complete the **attached Friends and Family Test**.

Alternatively, you can complete the *Friends and Family Test* on-line by going to:  
[southportandormskirk.nhs.uk/FFT](http://southportandormskirk.nhs.uk/FFT)  
**Thank you**

Author: Joanne Kenyon

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