NHS
Southport and Ormskirk Hospital
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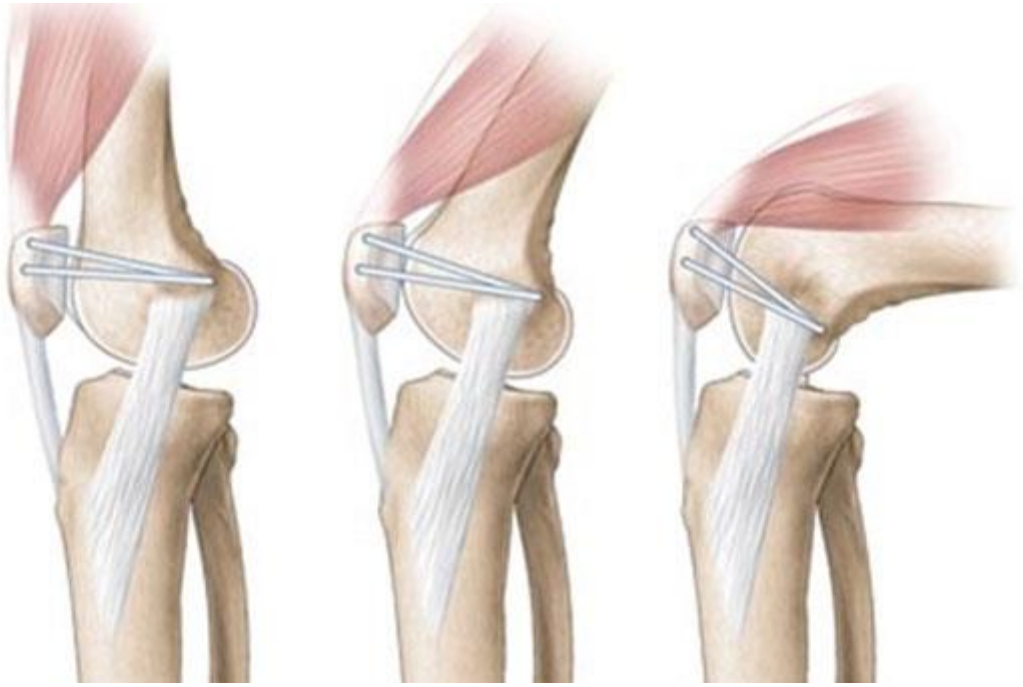
PATIENT INFORMATION

Medial Patellofemoral Ligament (MPFL) Reconstruction Surgery



MEDIAL PATELLOFEMORAL LIGAMENT

The medial patellofemoral ligament (or MPFL) is one of the several ligaments on the medial aspect of the knee and helps to stabilise the patella (knee cap).

It attaches to the upper third of the patella and inner aspect of the femur. Its main function is stop sideways movement and dislocation of the patella.

MPFL tears occur during the dislocation of the patella laterally (outwards). It almost always occurs with the knee straight or at shallow degrees of knee flexion rather than with the knee bent. When the patella dislocates, it tears the structures on the inside of the knee, with the medial patellofemoral ligament (MPFL) most commonly torn.

The dislocations occur either due to a traumatic event involving the knee e.g. following a tackle during sport, or atraumatically due to instability because of ligament laxity, reduced muscle strength and joint anatomy leading to poor control, mal-tracking and overall patella instability.

Some people can function satisfactorily without an MPFL by working on a programme of intensive rehabilitation. If symptoms of patella 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 MPFL RECONSTRUCTION SURGERY?

There are several different surgical techniques which your consultant may use for this operation; an example of one of these techniques is written below. 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 MPFL 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. A further incision is made along the inside border of your patella so that the graft can be attached to the bone. This can be done by using either a bone tunnel or by attachment to tissues of the patella.

A tunnel will be made in your thigh bone (femur) in the correct position and the graft will be passed from the patella, inserted into this tunnel and fixed in the tunnel with a screw, with the graft tightened.

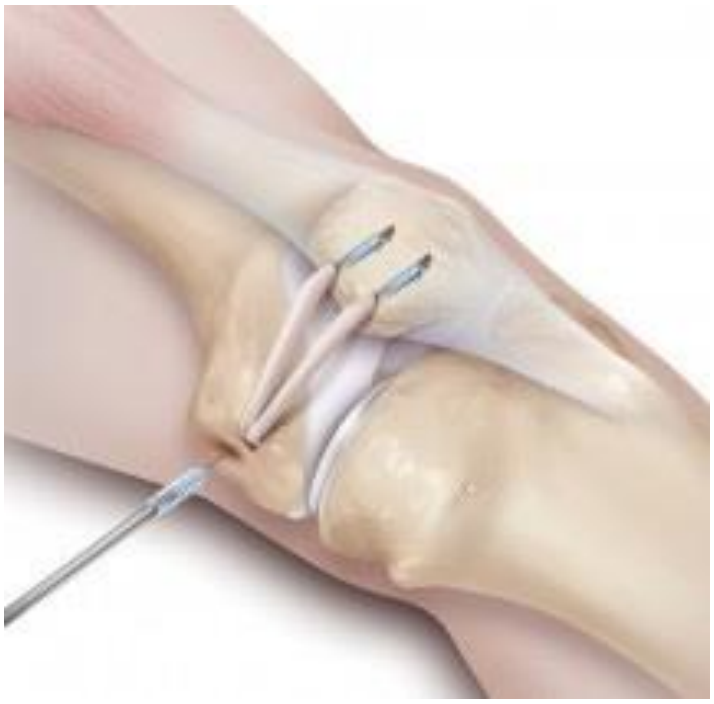
You will also have an arthroscopy of your knee as part of the operation. This is keyhole surgery to look inside the knee and check for other injuries and to review the patella movement before and after surgery.

ADDITIONAL SURGERY

Dislocation of the patella is rare in people with normal bone shapes and normal ligaments. Therefore, it is common with MPFL reconstruction to undergo other procedures.

The most frequent is to move the piece of bone of the tibia (leg bone) to translate the patella to the inside side of the knee and/or further down the leg. This will lower the risk of future dislocation.

Very rarely an operation called a Trochleoplasty is done. This is to change the shape of the groove your patella runs in. If this is thought necessary you will be informed of this before surgery as this is a much bigger procedure.



POSSIBLE COMPLICATIONS

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

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.

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.

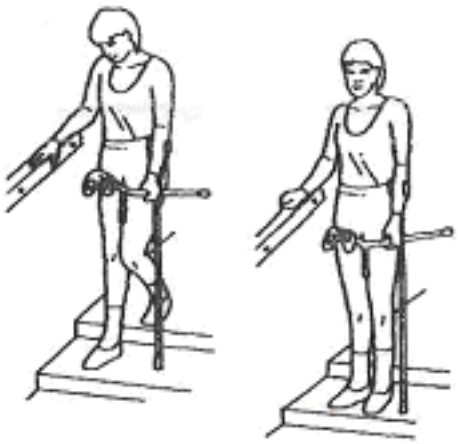
AFTER YOUR OPERATION

- A femoral nerve block may be used to help with pain relief.
- You will require a knee hinged brace which will be fitted by the Physiotherapist. They will also set the parameters of the brace to restrict range of movement from 0 to 90 degrees.
- 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.
- Mobilise fully weight bearing with elbow crutches (these are usually required for 4 weeks).
- Weight transference onto operated leg, as advised by your Physiotherapist.
- "Closed chain"(foot stays on the floor) knee flexion taught before discharge and maintained for 4 weeks.
- Stair practice taught before discharge.
- The majority of patients are discharged the day of surgery or the day after.

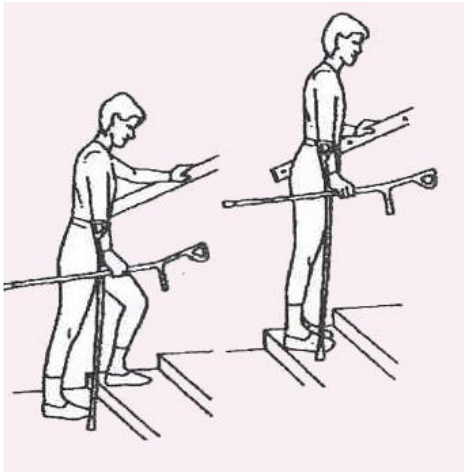
AFTER DISCHARGE

- Maintain knee 90º flexion and full knee extension.
- Wear knee hinged brace day and night.
- Mobilise with elbow crutches.
- Progress knee exercises as advised by your Physiotherapist.
- You should only drive when your consultant has agreed with you to do so.
- Outpatient Physiotherapy will be arranged before you are discharged from the ward and will aim to gradually improve knee range of movement, strength, weight bearing, gait, balance and function.

STAIRS

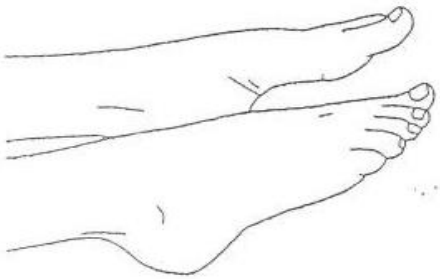


- First put your crutch on step down.
- Then take a step with your operated leg.
- Then take a step down with your unoperated leg, onto the same step as your operated leg.
- Always go one step at a time.



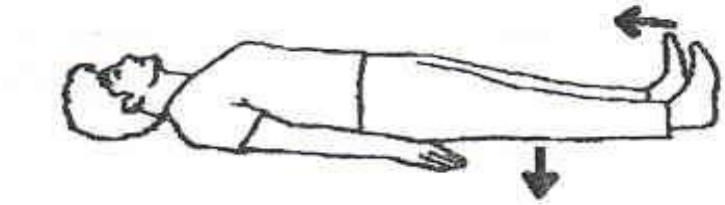
- First take a step up with your unoperated leg.
- Then take a step up with your operated leg.
- Then bring the crutch up on the step.
- Always go one step at a time.

EXERCISES



Foot and Ankle Movement

- Sitting or lying wiggle your toes, pump the foot up and down and circle the ankle in each direction.



Static Quads

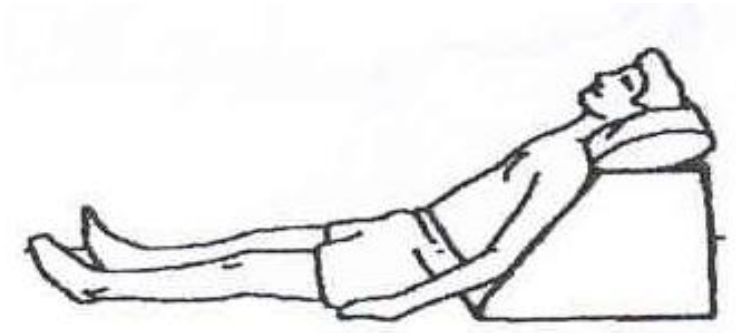
- Lying with your back supported and your legs out straight.
- Pull your foot up and press your knee down into the bed (squeezing your thigh muscles).
- Hold for 5 second and relax.
- Repeat 30 times, 4 times a day.

Static Gluteal muscle

- Lying with your back supported and your legs out straight or in a sitting position.
- Tense the buttocks, squeezing them together for 5 seconds

Straight Leg Raise

- 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.



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 knee extension.
- Attempt this position for 30 minutes, 4 times a day.

Closed Chain Knee Exercises

- 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.
- Repeat 10 times, 4 times a day.

Your physiotherapist will fully explain all of these exercises to you.

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).

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)656268 for Ormskirk patients
(01704) 704150 for Southport patients
(01695) 656603 H Ward, Ormskirk Hospital

Your Physiotherapist on the Ward was:

Any problems, please call your Physiotherapist on 01695 656861 or 01695 656268.

You will be provided with an outpatient physiotherapy appointment before you are discharged from the ward.

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 your named Physiotherapist or the Head of Therapy and Rehabilitation Services on tel no 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 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)656268 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

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

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
Thank you

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