

## Patellofemoral stabilisation

Patellofemoral stabilisation encompasses procedures such as medial patellofemoral ligament (MPFL) reconstruction, lateral release, and tibial tubercle transfer (TTT).

### Before surgery

Pre-operative rehabilitation is recommended.

### After surgery

Our care is specifically tailored to each patient, which allows recognition and modified care for those patients who may progress slower than others. Our rehabilitation protocols are 'milestone driven' designed to provide rehab guidance for all our patients. The aim is to limit unnecessary visits to the rooms and help to identify when specialist review is required.

### Rehabilitation protocol

Some of the physiotherapy terms may be unfamiliar to you now. They will become clear as you work with your physiotherapist.

## Phase 1: Initial Rehabilitation

### Goals:

- Minimise swelling and inflammation
- Start quadriceps muscle training
- Walk unaided

Time after surgery	Physiotherapy/Support
<b>Day 1-7</b>	<p>The first phase of rehabilitation starts immediately after surgery. During the first week you can expect the following.</p> <p><b>Weight bearing status:</b></p> <ul style="list-style-type: none"><li>• Weight bearing as tolerated with the support of two crutches and a range of motion (ROM) brace, locked at 0-30 degrees of flexion.</li></ul> <p><b>Range of motion:</b></p> <ul style="list-style-type: none"><li>• ROM brace locked at 0-30 degrees of flexion</li></ul> <p><b>Therapy and Exercises</b></p> <p><b>Swelling and inflammation control</b></p> <ul style="list-style-type: none"><li>• Cryotherapy (ice)</li><li>• Non-steroidal anti-inflammatories (NSAIDs)</li><li>• Elevation</li><li>• Ankle pumps</li></ul> <p><b>Muscle retraining</b></p> <ul style="list-style-type: none"><li>• Quadriceps isometrics</li><li>• Straight leg raises</li><li>• Hip adduction</li></ul> <p><b>Flexibility</b></p> <ul style="list-style-type: none"><li>• Hamstring stretches</li><li>• Calf stretches</li></ul>

## Phase 2: The Acute Rehabilitation Phase

### Goals:

- Control swelling and inflammation
- Gradual improvement in range of motion
- Quadriceps strengthening (especially the vastus medialis (VMO) muscle)

Time after surgery	Physiotherapy/Support
1-6 weeks	<p><b>During this phase, you can expect the following:</b></p> <p>Weight bearing status:</p> <ul style="list-style-type: none"> <li>• Discontinue crutches when appropriate</li> <li>• Weight bearing as tolerated with ROM brace locked to a comfortable flexion limit</li> </ul> <p>Range of Motion</p> <ul style="list-style-type: none"> <li>• At least 60 degrees of flexion (week 2)</li> <li>• At least 90 degrees of flexion (week 4)</li> <li>• Full flexion (week 6-8)</li> <li>• NB rate of progress is based on swelling/inflammation</li> </ul> <p>Therapy and Exercises:</p> <p>Inflammation control</p> <ul style="list-style-type: none"> <li>• Continue use of ice, compression and elevation as needed</li> </ul> <p>Muscle Retraining</p> <ul style="list-style-type: none"> <li>• Electrical muscle stimulation to quads</li> <li>• Quad setting isometrics</li> <li>• Straight leg raises (flexion)</li> <li>• Hip adduction</li> <li>• Knee extension 60-0 degrees, pain free arc</li> <li>• Bicycle* (stationary, in brace) if range of motion/swelling permits</li> <li>• Proprioceptive training *</li> </ul> <p>Flexibility</p> <ul style="list-style-type: none"> <li>• Continue hamstring and calf stretches</li> <li>• Initiate quadriceps muscle stretching</li> </ul>

## Phase 3: Moderate Protection

### Goals:

- Eliminate any joint swelling
- Improve muscle strength and control without exacerbation of symptoms
- Functional exercise movements
- Wean off brace

Time after surgery	Physiotherapy/Support
6-12 weeks	<p><b>To advance to this phase you need to have:</b></p> <ul style="list-style-type: none"> <li>• Minimal inflammation and pain</li> <li>• Near full range of motion</li> <li>• Strong quadriceps contraction</li> </ul> <p>Once you've achieved these criteria, over the next 6 weeks, you can expect the following.</p> <p><b>Therapy and Exercises</b></p> <p><b>Inflammation control</b></p> <ul style="list-style-type: none"> <li>• Continue use of ice, compression and elevation as needed</li> </ul> <p><b>Muscle Retraining</b></p> <ul style="list-style-type: none"> <li>• Continue muscle stimulation to quadriceps (if needed)</li> <li>• Quadriceps setting isometrics</li> <li>• 4-way hip machine (hip adduction, abduction, extension, flexion)</li> <li>• Lateral step-ups, if able</li> <li>• Front step-ups, if able</li> <li>• Squats against wall* (0-60 degrees)</li> <li>• Knee extension (90-0 degrees), pain-free arc</li> <li>• Bicycle</li> <li>• Pool program* (walking, strengthening, running)</li> <li>• Proprioceptive training</li> </ul> <p><b>Flexibility</b></p> <ul style="list-style-type: none"> <li>• Continue all stretching exercises for lower extremity</li> </ul>

\*If you can perform pain free.

## Phase 4: Minimal Protection

### Goals:

- Achieve maximal strength and endurance
- Functional activities and drills

Time after surgery	Physiotherapy/Support
12-16 weeks	<p><b>To advance to this phase you need to have:</b></p> <ul style="list-style-type: none"> <li>• Full, non-painful range of motion</li> <li>• No swelling or inflammation</li> <li>• A knee extension strength that is 70 % of your other knee.</li> </ul> <p>During the next 4 weeks you can expect:</p> <p><b>Therapy and Exercises</b></p> <p><b>Inflammation control</b></p> <ul style="list-style-type: none"> <li>• Continue use of ice as needed</li> </ul> <p><b>Muscle Strengthening</b></p> <ul style="list-style-type: none"> <li>• Wall squats (0-70 degrees) pain-free arc</li> <li>• Vertical squats * (0-60 degrees)</li> <li>• Leg press</li> <li>• Forward lunges</li> <li>• Lateral lunges</li> <li>• Lateral step-ups</li> <li>• Front step-ups</li> <li>• Knee extension pain-free arc</li> <li>• Hip strengthening (4 way)</li> <li>• Bicycle</li> <li>• Stairmaster</li> <li>• Proprioception drills</li> <li>• Sport specific functional drills (if you're a competitive athlete)</li> <li>• Jogging program</li> </ul> <p><b>Flexibility</b></p> <ul style="list-style-type: none"> <li>• Continue all stretching exercises for lower extremity</li> </ul>

## Phase 5: Return to activity

### Goal:

- Functional return to work and/or sport

Time after surgery	Physiotherapy/Support
16-20weeks	<p><b>To advance to this phase you need to have:</b></p> <ul style="list-style-type: none"><li>• Full, non-painful range of motion</li><li>• An appropriate level of strength (&gt;80% of your other leg)</li><li>• A satisfactory clinical examination</li></ul> <p>During this phase you can expect the following</p> <p><b>Exercises</b></p> <ul style="list-style-type: none"><li>• Functional drills</li><li>• Continue jogging/running program</li><li>• Strengthening exercises (selected)</li><li>• Flexibility exercises</li></ul>