

Patellar (knee cap) tendon ruptures

Physiotherapy information for patients, relatives and carers

This booklet aims to provide you with information about your time in hospital and help you get the best possible results following your injury and surgery. If you have any other questions or concerns, please do not hesitate to speak to the team looking after you.

Date:

Name:

Weight bearing status:

Brace instructions:

Confirming your identity

Before you have a treatment or procedure, our staff will ask you your name and date of birth and check your ID band. If you do not have an ID band we will also ask you to confirm your address. If we do not ask these questions, then please ask us to check. Ensuring your safety is our primary concern.

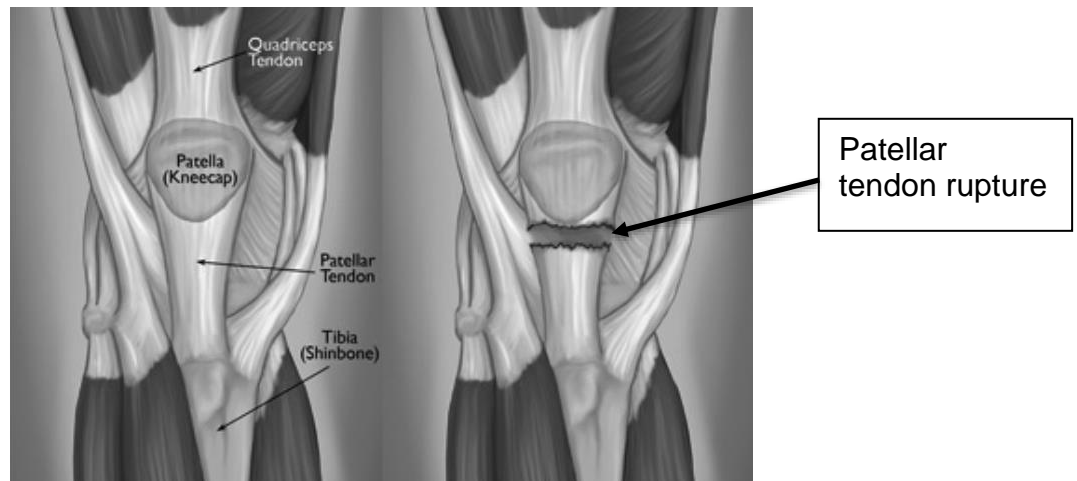
Introduction

The information in this booklet is only intended as a guide, and the information given may vary from patient to patient depending on their circumstances. Following your patellar tendon rupture, you will need to be careful how you treat your leg as it takes time for the tendon and muscles to heal. You will need to follow the advice given to you by the physiotherapists and surgeon.

Physiotherapy largely consists of advice and exercises that should be completed daily whilst in hospital and at home. The exercises aim to maintain or improve the movement, strength and function of your leg. It is your responsibility to continue these by yourself once demonstrated by a physiotherapist.

If at any point during your rehabilitation you have difficulty following our advice or the exercises the physiotherapist has given you, please phone the orthopaedic physiotherapy office using the contact details provided at the end of this booklet.

Anatomy



There are four main bones in the leg:

- femur (thigh)
- fibula (calf)
- tibia (shin)
- patella (kneecap)

The patellar tendon is a strong band of tissue that connects the patella to the tibia. A patellar tendon rupture is a complete tear in this tissue. In addition to a rupture there might be damage to the surrounding soft tissues (muscles, skin, nerves, and ligaments) or the bones.

Management of the tear

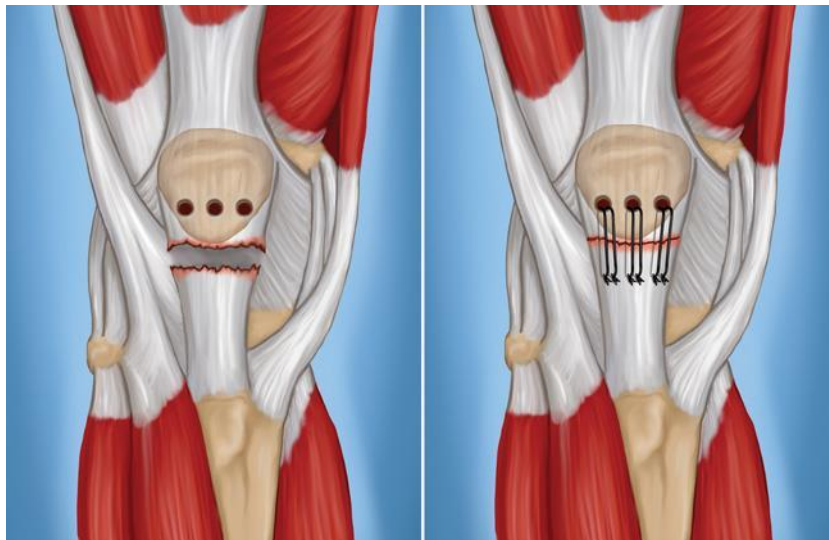
There are several factors the doctor will consider before undertaking surgery. These include:

- the cause of your injury
- your overall health and pre-existing medical conditions
- the severity of your injury including the amount of damage to your soft tissues (muscles, skin, nerves, ligaments)
- your normal level of function

In this particular injury, repairing the tendon with surgery is the standard treatment.

Patellar tendon repair

During the procedure to repair your patellar tendon rupture, sutures are placed in the tendon and threaded through drill holes in your kneecap, and tied at the top of the kneecap. They are tightened carefully to achieve a similar position of the kneecap on your uninjured leg



Pain management

Pain is to be expected following surgery to repair a tendon rupture. In the first few days after your operation you must take regular pain relief to participate in physiotherapy and regain your independence. There are many types of pain relief available – the doctors will advise what is best for you.

Using an ice pack might give temporary relief from any discomfort and swelling. You can make up an ice pack by putting ice cubes in a plastic bag and wrapping this in a damp cloth. This can be applied to the affected area for 10 to 15 minutes at a time. You must be careful not to get the wound or dressing wet. Please ensure you do not place ice directly onto skin – it must be covered.

It is important to check the skin during and after using the ice pack. If the skin remains discoloured following the removal of the ice pack, or you develop any sudden and severe increases in pain, loss of feeling in the skin, ice burns (change in colour and/or broken skin) or wheals (a raised, itchy area of skin), stop using the ice pack and seek medical advice.

Complications

If you develop any changes in sensation, severe pain and/or swelling to the area, discolouration or oozing of the wound when you are on the ward or back at home, please alert a member of the medical team or seek advice from your GP.

First day after your operation

The physiotherapist will come to see you on the first day after your operation. They will start your exercise programme and help you to get out of bed and sit in a chair.

Weight bearing status: This refers to how much of your body weight you are allowed to put through your affected leg. The physiotherapist will inform you of your weight bearing status and this will be documented on the front of this booklet.

Walking aids: The physiotherapist will provide you with a suitable walking aid such as a frame, elbow crutches or stick, and will teach you how to use your aid/s to help you to get about. Using a walking aid allows you to take some or all of your weight off your affected leg, and will also help you to balance and to regain your independence.

Advice on positioning: It is important to keep your leg elevated when resting, so that your ankle is higher than your hip. This position can help to reduce the swelling. Always rest with the knee in a straight position to maintain muscle length. The physiotherapist will advise you on where to place the pillows in order to keep your leg elevated and straight.

Knee brace: You will be fitted with a knee brace (see right) on your first day and taught how to lock, unlock and adjust it. Normally, for the first 2-8 weeks your knee brace will need to be locked straight to allow your tendon to heal fully. You will gradually be allowed to increase the amount of bending at the knee as directed by your surgeon. Your specific instructions are documented on the front of this booklet.



Subsequent days

Your physiotherapist will progress your exercises and mobility with the aim of helping you become independently mobile again.

You should continue to practice your walking and complete your exercises in between your physiotherapy sessions, with the help of the nursing staff or family members if needed.

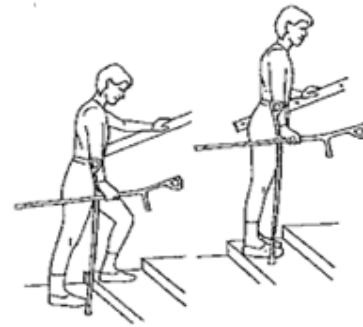
Stairs

If you have stairs at home your physiotherapist will teach you how to go up and down the stairs. Always use a stair rail or bannister if available, as well as your walking aid.

If you have any weight bearing restrictions, your physiotherapist will teach you the correct technique for going up and down the stairs.

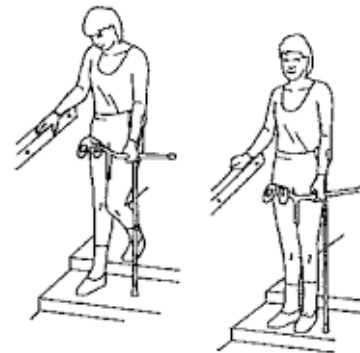
Going up

1. Non-operated leg
2. Operated leg
3. Crutch/stick



Going down (the opposite applies)

1. Crutch/stick
2. Operated leg
3. Non-operated leg



If you are worried about managing the stairs at home, please discuss this with the physiotherapist and occupational therapist.

Leaving hospital

Following your surgery, when you are medically well, the team of doctors, nurses and therapists will plan your return home with you. The physiotherapist will help you set goals that identify what you need to be able to achieve to go home. They will give you advice to help you plan for a safe discharge from hospital. If you require any additional or adaptive equipment or formal care support this will also be organised before you are discharged from hospital.

Rehabilitation after leaving hospital

If you need any additional physiotherapy, the physiotherapist will arrange appropriate follow-up physiotherapy for you when you leave hospital. This will either be at your home or in your local physiotherapy department.





Exercises




These exercises aim to:



- improve movement and muscle strength
- prevent joint stiffness
- prevent muscle tightness
- increase or maintain circulation

You may find it helpful to take your pain medication before doing your exercises to enable you to get the most out of the exercises.

Complete the exercises that have been marked by the physiotherapist three times per day. Repeat each exercise 10 times.

	<u>Exercise</u>	<u>Description</u>
<input data-bbox="145 333 247 414" type="checkbox"/>	<p data-bbox="279 333 454 365">Static quads</p> 	<p data-bbox="906 398 1476 430">Lie on your back with your legs straight.</p> <p data-bbox="906 459 1500 566">Push your knee into the bed by tightening your thigh muscle while pulling your toes towards you.</p> <p data-bbox="906 595 1252 627">Hold 10 seconds. Relax.</p>
<input data-bbox="145 728 247 808" type="checkbox"/>	<p data-bbox="279 728 454 759">Static glutes</p> 	<p data-bbox="906 792 1532 855">Tighten your bottom muscles together. Hold 10 seconds. Relax.</p>
<input data-bbox="145 1158 247 1238" type="checkbox"/>	<p data-bbox="279 1158 518 1189">Straight leg raise</p> 	<p data-bbox="906 1223 1476 1285">Lie on your back with your legs straight. Bend your other knee.</p> <p data-bbox="906 1314 1484 1377">Pull your toes towards you and lock your knee straight.</p> <p data-bbox="906 1406 1532 1514">Keeping your knee straight, slowly lift your foot 10 cm off the bed. Hold for 10 seconds. Relax.</p>
<input data-bbox="145 1610 247 1691" type="checkbox"/>	<p data-bbox="279 1610 470 1641">Hip abduction</p> 	<p data-bbox="906 1675 1540 1738">Stand in an upright position, hold onto a firm support and keep your upper body still.</p> <p data-bbox="906 1767 1532 1830">Move your affected leg sideways away from your body and then back to the centre.</p> <p data-bbox="906 1859 1460 1966">Move your leg in a slow and controlled manner and keep your kneecap facing forwards.</p>

<input type="checkbox"/>	<p>Hip extension</p> 	<p>Stand on the unaffected leg and hold onto a firm support.</p> <p>Keep your knee straight, move your affected leg directly backwards as far as is comfortably possible and then bring your leg back to the starting position.</p> <p>Keep your upper body still throughout.</p>
<p>The following exercises can be started once you are allowed to bend your knee – the physiotherapist will give specific instructions on how and when to start:</p>		
<input type="checkbox"/>	<p>Knee flexion</p> 	<p>Lie on your back with your legs straight.</p> <p>Slowly slide your heel towards you to bend your knee, then straighten your knee.</p> <p>The amount you bend your knee might be limited by the brace so follow the instructions given by the physiotherapist.</p>
<input type="checkbox"/>	<p>Knee extension in sitting</p> 	<p>Sit in a chair or on the edge of the bed with both feet on the floor.</p> <p>Pull your toes up towards you and slowly lift your foot to straighten your knee, then slowly bend your leg and lower your foot to the floor.</p>
<input type="checkbox"/>	<p>Knee flexion</p>	<p>Stand on the unaffected leg and hold onto a firm support.</p> <p>Slowly bend your knee to lift your foot up behind you as far as you can, then lower your foot back down to the floor.</p>

		
<input data-bbox="140 651 240 725" type="checkbox"/>	<p data-bbox="277 640 427 674">Hip flexion</p> 	<p data-bbox="904 703 1533 775">Stand on the unaffected leg and hold onto a firm support.</p> <p data-bbox="904 869 1541 972">Move the affected leg forwards and upwards bending at both the hip and the knee. Slowly lower the leg to the ground and repeat.</p>

Useful contacts

- Inpatient Orthopaedics Kings College Hospital 020 3299 2368
- Inpatient Orthopaedics PRUH 016 8986 4632
- Inpatient Orthopaedics (Orpington) 016 8986 6255
- Outpatient Physiotherapy (Denmark Hill/Dulwich Hospital) 020 3299 8220
- Outpatient Physiotherapy (Beckenham Beacon) 016 8986 6660

Sharing your information

We have teamed up with Guy's and St Thomas' Hospitals in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas'. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your treatment will not be affected by your decision.

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. They can also pass on praise or thanks to our teams.

PALS at King's College Hospital, Denmark Hill, London SE5 9RS

Tel: 020 3299 3601

Email: kch-tr.palsdh@nhs.net

PALS at Princess Royal University Hospital, Farnborough Common, Orpington, Kent BR6 8ND

Tel: 01689 863252

Email: kch-tr.palspruh@nhs.net

If you would like the information in this leaflet in a different language or format, please contact our Communications and Interpreting telephone line on 020 3299 4826 or email kch-tr.accessibility@nhs.net