



We can provide interpreters for a variety of languages, information in larger print or other formats (e.g. audio) - please call us on 01932 723553.

To use the Text Relay service, prefix all numbers with 18001.

اگر نیاز به ترجمہ دارید، لطفاً با شماره 01932 723553 تماس بگیرید۔

ਜੇ ਤੁਹਾਨੂੰ ਤਰਜਮੇ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ ਤੇ فون ਕਰੋ: 01932 723553

اگر آپ اس کا اردو زبان میں ترجمہ چاہتے ہیں، تو براہ کرم اس فون نمبر 01932 723553 پر رابطہ کریں

Se precisa de uma tradução por favor contacte: 01932 723553

আপনার অনুবাদের দরকার হলে এখানে যোগাযোগ করুন : 01932 723553

यदि आपको अनुवाद की ज़रूरत है तो कृपया इस नंबर पर फोन करें: 01932 723553

Jeżeli chcemy, aby te informacje w innym języku, proszę zadzwonić 01932 723553

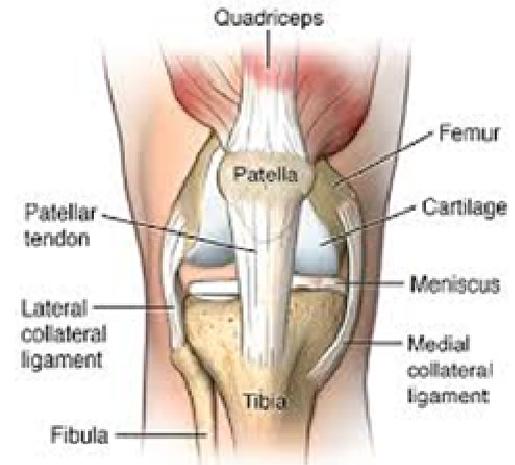
**Ashford Hospital**  
London Road  
Ashford, Middlesex  
TW15 3AA  
Tel: **01784 884488**

**St. Peter's Hospital**  
Guildford Road  
Chertsey, Surrey  
KT16 0PZ.  
Tel: **01932 872000**

Website: [www.ashfordstpeters.nhs.uk](http://www.ashfordstpeters.nhs.uk)

# Patella Tendinopathy

## Physiotherapy Department



## The Knee and Patella Tendon

The patella tendon is located just below the knee cap (patella). It is a continuation of the muscles on the front of the thigh (quadriceps) that pass over the knee cap and insert onto the front of the shin bone (tibia). The quadriceps act to straighten the knee joint and are used in all weight-bearing activities such as squatting, running, jumping or going up and down stairs/hills.

### What causes Patella Tendinopathy?

Patella tendinopathy is a condition that causes pain, stiffness and weakness to the patella tendon. It is thought to be caused by repeated tiny overuse injuries (known as microtrauma) to the tendon. These can build up over time and a tendinopathy can develop. It is often referred to as Jumper's Knee as it is commonly prevalent in people who perform impact sports and activities. There are also many other factors that could contribute to developing Patella Tendinopathy:

- Reduced muscle strength around the knee and hip
- Reduced ankle movement
- Increased body weight
- Sudden changes in exercise, training or physical activity

### Signs & Symptoms

- Patella Tendinopathy usually comes on gradually, but it can start with a specific knock or bang to the knee

- Repeat until tired and perform 2-3 sets, twice a week.

### Exercise Level 4 – Running/Return to Sport

Progress to this stage only if you can do the Level 3 exercises with  $\leq 3/10$  pain-rating during the exercises.

Running with shorter stride lengths, and/or increasing step rate can be helpful strategies as this reduces the forces going through your patella tendon.

Couch to 5k is great resource for people new to running, or who are looking to return to running after a break. For more details type NHS Choices Couch to 5k into an online search engine. If you are looking to return to sport, now is the best stage to practice sport specific drills (e.g. running with cutting movements). Returning to running and/or sports often can take between 3 and 6 months, so it is important to gradually increase impact activities, whilst also having the right balance of adequate rest to aid recovery.

*All exercise images provided with consent of [www.physiotec.ca](http://www.physiotec.ca)*

---

### Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty.

If they cannot resolve your concern, please contact our Patient Experience Team on 01932 723553 or email [asp-tr.patient.advice@nhs.net](mailto:asp-tr.patient.advice@nhs.net). If you remain concerned, the team can also advise upon how to make a formal complaint.

---

**Author:** Chetan Patel (Clinical Specialist Physiotherapist)

**Version:** 1

**Published:** July 2018

**Department:** Physiotherapy

**Review:** July 2020

## Decline Single Leg Squat



- Stand on affected side, on a decline board, or your heel on a wooden block. Bend your knee 30-45° and return to start position. Aim to keep your knee over your foot.
- Perform repetitions until fatigue and perform 2-3 sets every other day.

**Exercise Level 3** – Progress to this stage only if you can do the Level 2 exercises with  $\leq 3/10$  pain-rating during the exercises.

## Walking Lunges

- Stand with your knee at hip width, take a step forward bend your knee and hip to 90 degrees.
- Keep your torso and your hip stable and the foot aligned with the knee and the hip. Bring the trailing leg in front to make another step.
- Perform until fatigue, and progress exercises by holding dumbbells or performing the exercise faster. Aim 2-3 sets every other day.



## Jump Squat



- Stand with feet hip width apart. Bend knees and hips and put arms in front of you. Jump from this position, and on landing return to this position.

- The tendon is often sore to touch
- The pain is worse moving after a period of rest, or on more strenuous tasks such as jumping and running
- The affected tendon may appear thickened compared to the unaffected side.

## **How long will it take to get better?**

With exercise, activity modification and advice in this leaflet you should expect your symptoms to settle over 6-to-12 weeks, but you may notice improvements day-to-day much sooner.

## **How can I / Physiotherapy help it to get better?**

Exercise has been shown to improve the condition of tendon fibres, which can reduce pain, stiffness and increase strength. Pacing or modifying your aggravating activities is very important to manage the load on your patella tendon and help it recover.

You may be able to continue with usual activities at a lesser intensity as long as it is no more than 5 out of 10 on a self-rating pain scale (with 0 being no pain and 10 being maximum pain) during the activity, and the pain has settled by the next morning.

However, it is normally safe to continue with low-load exercises such as walking, swimming and cycling.

Losing weight (if applicable) will help reduce load on the affected knee joint.

If the Patellar Tendinopathy is very painful, Painkillers can be helpful in the early phase, but please speak to your GP or Pharmacist to find the right medication and dosage. An off-the-shelf brace can be beneficial short term to take some pressure off the patella tendon.

## Exercises

Exercise, in combination with adequate rest, is the best treatment for the management of Patella Tendinopathy. Several studies have shown it is safe to perform exercises with pain upto 5/10 on a self-rating scale during the exercise. It is very important to gradually progress through the different levels of exercise, to sufficiently allow the patella tendon to increase its load tolerance.

**Exercise Level 1** – This exercise is good to reduce the level of pain from Patella Tendinopathy

### Isometric Double Leg Squat



- Stand against a wall, with feet away from the wall. Bend knees and slide your back down the wall
- Hold this position for 45 seconds. Pain should be no more than 5 out of 10, and your shin bone should be at a right angle to the floor.
- Repeat 4 x day. The exercise can be progressed by holding the squat lower down against the wall (upto 90°).

**Exercises Level 2** – Progress to this stage only if you can do the Level 1 exercise with  $\leq 3/10$  pain-rating during the exercise.

### Squats



- Stand tall, with feet hip width apart, initiate the squat by pushing your hips back, as if you were going to sit on a chair. Continue the movement by bending the knees, keeping them directly over your feet
- Lower yourself until your thighs are parallel to the ground. Lift yourself up and repeat.
- Repeat until you are tired and perform 2-3 x day, every other day. Hold weights to progress this exercise.

### Split Squat



- Stand with one leg a large stride in front, and on your toes on the back leg. Lower your body, by bending your knees to 90°, without your back knee touching the floor. Keep your front knee in-line with your 2<sup>nd</sup> toe. Return to start position
- Perform repetitions until you are tired, and then swap legs around and repeat. Perform 2-3 sets, every other day.