



Introduction

The Patellar tendon is the tendon that joins your kneecap (patella) to your shin bone (tibia)

The exact mechanisms of how patellar tendinopathy develops in response to excessive loads (overuse) is not fully understood. The current theory is that the tendon becomes oversensitive due to biochemical changes.

Sometimes we can find some structural changes in the tendon, however the connection between structure changes in the tendon and pain is not completely understood as structural changes are often find in people who are pain free and will never develop pain. The amount of structural changes does not link up with the amount of pain.



Patellar Tendinopathy

PATIENT

LEAFLET

INFORMATION

Airedale NHS Foundation Trust Bradford Teaching Hospitals NHS Foundation Trust Bradford District and Craven Clinical Commissioning Group

Causes of Patellar Tendinopathy

- Overweight
- Raised cholesterol
- Smoking
- Sports that involve jumping and landing (e.g. volleyball, basketball and triple jump) or sudden changes of direction (e.g. football and tennis)
- Sudden changes to your training program or activities; such as frequency, duration or training surface without a sufficient adaptation period
- Poor technique and overtraining

Symptoms of Patellar Tendinopathy

- Patellar tendinopathy classically presents as pain just below your kneecap.
- Tendon pain occurs instantly with loading and usually stops almost immediately when the load is removed like walking down stairs.
- Pain is rarely experienced in a resting state.
- Other signs and symptoms, such as pain with prolonged sitting or during crouching may be present.
- When touching the tendon you may feel pain and swelling.

Diagnosis of Patellar Tendinopathy

A diagnosis of patellar tendinopathy can be made on history and examination. Imaging is rarely needed, unless there is uncertainty over the diagnosis.

Self management of Patellar Tendinopathy

Weight loss

If you are overweight you are putting extra load through your knee. This will be contributing to your arthritis. Therefore, losing weight will improve your symptoms. Here are some useful websites;

- <u>https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/</u>
- <u>https://www.nhs.uk/live-well/healthy-weight/start-the-nhs-weight-loss-plan/</u>

Stopping Smoking

Smoking is a well-recognised risk factor in the development of tendinopathy, it is therefore important to try and stop.

<u>https://www.nhs.uk/live-well/quit-smoking/</u>

Activity management

Reduce your levels of activity to a point where you feel no pain. Maintain this level of activity and the tendon may settle in as little as 5-10 days. However, it may take several weeks to fully settle. For mild cases you may be able to continue some normal activities as long as you're able to keep it relatively pain free. Once symptoms have settled ensure your return to activities is gradual

Diabetes/Raised cholesterol

If you suffer with these conditions it is important to ensure they are well controlled. Speak to your healthcare professional for advice on improving your control.

Exercises for Patellar Tendinopathy

Exercise 1: Clam (lateral hip rotation in side lying)



- Lying on your left side with your hips and knees bent.
- Lift your right knee up and rotate your hip
- Forming a gap between your knees. Repeat.

Exercise 2: Deep Squat



- Start in a standing position, with your feet shoulder width apart.
- Raise your arms up as you bend your knees into a squat position.
- Return to the standing position.

Exercise 3: Single Leg Mini Squat



- Stand on one leg with the other leg stretched out in front of you.
- Your heel should be slightly off the ground.
- Slowly bend the knee going into a single leg squat position.
- ALL of your weight should be on this leg.
- Return to the starting position.

Exercise 5: Bridge



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- Lie face up on the floor, with your knees bent and feet flat on the ground. Keep your arms at your side with your palms down.
- Lift your hips off the ground until your knees, hips and shoulders form a straight line. Squeeze your buttocks.
- Hold your bridged position for a couple of seconds before easing back down.

Exercise 4: Hip Abduction in standing



- Stand sideways
- Make sure you are supported
- Keep your knee straight
- Take your leg out to the side. Repeat

What next?

If you are still experiencing symptoms despite following the above advice, it is important you seek advice from your GP. Your GP may decide to refer you to the musculoskeletal clinic or to a physiotherapist.