Patella tendon pain

**What is Patellar Tendon Related Pain?**

Patella tendon related pain is a condition where pain is felt in the tendon which lies just below the knee-cap (patella).

**How is it caused?**

Patella tendon related pain generally is a condition effecting young athletes (15-30 years old). It results from overuse of the patella tendon particularly from activities which involve jumping and landing. Repetitive use of the muscles on the front of the thigh (quadriceps) or insufficient rest to allow the tendon to heal between sessions can lead to a change in tendon structure1.

Other factors may also contribute to the onset of patella tendinopathy by increasing the stress on the tendon. These include reduced muscle flexibility and strength and altered foot posture2.

**How is it diagnosed?**

Diagnosis is generally made clinically following a history taking and physical examination. If the clinical picture is unclear or your symptoms are not improving as expected then further investigations such as an Ultrasound Scan or MRI may be required.

**What are the symptoms?**

* Pain is felt initially when performing activities involving jumping and hopping but can become easier as you warm up.
* Pain disappears quickly once the activity is stopped but can often return the day after.
* Pain is rarely present at rest in the early stages but can be become more continuous as the condition progresses.

**What can I do?**

Exercise is the most evidence based treatment for patella tendon related pain.Patella tendon related pain generally does not get better by itself especially if you continue to perform activities that put the tendon under too much stress. Doing the right exercise is essential towards improving the way in which the tendon can cope with activity.

Be patient and stick with it can take up to 12 weeks to see improvement.

Exercises should be performed 3-4 x per week with a rest day in between sessions.

Keep pain at an acceptable level. To make sure you are working at the right level, symptoms should settle back to normal within 24 hours of performing the exercises. If it takes longer than this, then reduce the weight or number of repetitions to make things easier. Build up slowly again when ready.

To help maintain fitness levels consider lower impact forms of exercise such as swimming, cycling or walking.

**Progressive Exercise**

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Final stage of recovery

* Continue swimming, cycling or walking as much as the pain will allow.
* If you can do 3 sets of 8-15 repetitions of the single leg decline squat with minimal pain, begin short bursts of jumping, skipping or running on the spot.
* Restart running, beginning on grass for 5-10 minutes, and build up your normal training over the next 2-3 months.

**Factors influencing pain and recovery**

During your recovery a number of other factors can influence your pain levels. Keep the following factors in mind to help move the healing process along:

Look after yourself

Pain is not usually simply a physical problem. Your general well-being can make you vulnerable to pain and your wellbeing can also be made worse by pain. Looking after your general health and well-being will help recovery. There is helpful advice on this website: [https://www.nhs.uk/oneyou](https://www.nhs.uk/oneyou/)

Reduce stress and anxiety

It is normal for people with pain to have stress, anxiety and change in mood. This may affect your ability to cope with the pain and may influence your pain levels. Help is available if you are being affected by stress, anxiety or low mood – see the links below or discuss with your practitioner.

It is important that your whole nervous system is in a healthy state to aid recovery. If your brain is stressed or overworked this may slow recovery. Relaxation is an important part of your recovery. Simple relaxation techniques may help manage pain and stress. Try to set aside some time each day to relax – you can use relaxation techniques as linked below, or simply an activity you enjoy – reading, deep breathing, sitting in the garden, singing – whatever relaxes you.

Find help and support here: <https://www.nhs.uk/oneyou/every-mind-matters/>

<https://www.northessexiapt.nhs.uk/west-essex>

Physical Activity

Exercise improves fitness, confidence with movement and strength. It can also help reduce your stress and tension and improve your mood and quality of sleep, helping support you to return to normal activities. Perhaps you could simply start by trying to walk for 10 minutes per day.

Alcohol

Avoid alcohol in the early stages of healing (first three days). Evidence has shown this can slow down recovery and increase the chances of re-injury. <https://www.drinkaware.co.uk/>

Sleep

Sleep is very important for your wellbeing. Poor sleep quality, and lack of sleep can make managing pain more difficult. Consistently getting 6-9 hours is recommended. Get help and tips here:

<https://www.nhs.uk/live-well/sleep-and-tiredness/>

Smoking

Smoking can also impact how quickly tissues can heal and affect pain levels. For help with stopping smoking <https://www.essexlifestyleservice.org.uk/stop-smoking/> <https://www.nhs.uk/better-health/quit-smoking/>

**How long will it last?**

Patella tendon related pain does not generally produce any long term effects if it is correctly diagnosed and appropriately treated. Early diagnosis is essential as this helps to reduce the likelihood of prolonged pain from the tendon and will result in a quicker return to sporting activities.

If your symptoms have persisted despite following the advice and exercise provided in this leaflet.

If you require 1:1 physiotherapy treatment please fill out a self-referral form which can found at <https://eput.nhs.uk/our-services/essex/west-essex-community-health-services/adults/rehabilitation/musculo-skeletal-physiotherapy> and send to epunft.mskphysio@nhs.net

**Is there anything I should avoid?**

If you have been diagnosed with patella tendon related pain you shouldn’t ignore the problem. Continuing to perform activities which put the tendon under too much strain may interfere with the healing process and cause your recovery to be prolonged.

**What other options are there?**

Physiotherapists may consider using treatments such as manual therapies for pain control to help with exercise progression. If your response to treatment has been limited there may be a role for other therapies such as injections or shockwave therapy however these treatments are not often available on the NHS.

More invasive treatment such as surgery is not normally recommended for patella tendon related pain.