DENNIS KOSUGE
ORTHOPAEDIC SURGEON

PATIENT INFORMATION LEAFLET

Patella tendinopathy

Patella tendinopathy

Patella tendinopathy

Otherwise known as 'jumpers knee', this is a soft tissue injury that affects the tendon that connects your kneecap to your shin bone at the front of your knee (patella tendon). Your patella tendon is part of the mechanism that joins your thigh muscle (quadriceps) to your shin bone via the kneecap so it is important in movements that require you to straighten your knee. This movement is integral in activities such as jumping, running, walking up and down stairs. Patella tendinopathy is thought to occur as too much strain is placed on your patella tendon, leading to micro-injuries and changes to its structure (Figure 1).

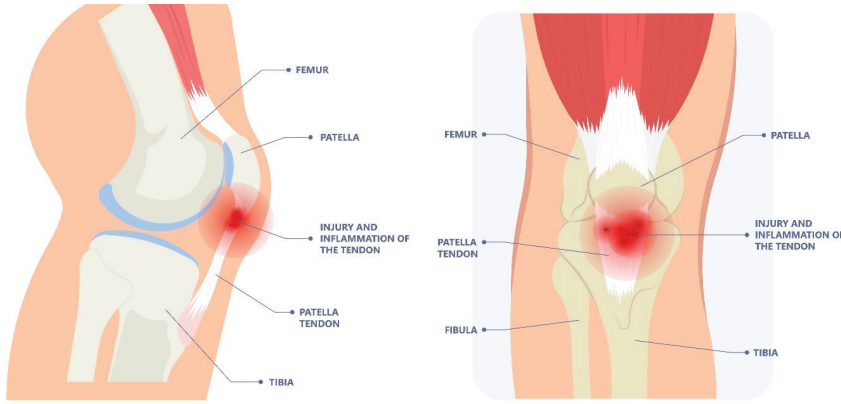

Figure 1

A side view (left) and front view (right) of a right knee, depicting the patella tendon which connects the kneecap (patella) to the shin bone (tibia). The red zone is often where the patella tendon becomes inflamed or injured.

Causes

This condition most commonly affects those over 30 years of age and seems to affect men more than women. Athletes are more prone to developing this conditions e.g. basketball, volleyball, netball, running. Whilst the exact reasons are not known, it is thought to be related to overuse of the tendon:

- **Overuse**

  Repetitive activities that place excessive stresses on the tendon e.g. jumping, downhill running, deep squatting or squatting with weights.

- **Habitual change**

  Sudden changes in how long or how often you exercise can trigger onset of this

pain. A lack in variation in training may also contribute to this condition.

- **Tight quadriceps muscle**

  Your patella tendon is part of the mechanism that allows you to straighten your knee, as is your quadriceps muscle and kneecap. Tightness in your quadriceps can therefore have an impact on the stresses placed on your patella tendon.

- **Poor hip and spine core stability**

Symptoms

You may experience the following:

- Pain over your patella tendon – initially, the pain may only be present with specific activities that stress the tendon e.g. jumping, squatting, running. This can progress to a pain that varies in intensity from being able to tolerate exercises, to a pain that restricts you from exercising completely
- Tenderness – part of (or less frequently, all of) your patella tendon may be painful to touch.
- Morning 'stiffness' – you may notice stiffness that is pronounced in the morning but eases during the course of the day.

Diagnosis

The diagnosis of this condition can be a clinical one but you may be sent for investigations such as x-rays (to rule out a break in your bone if this was following a direct blow) and/or scans of your knee (ultrasound or magnetic resonance imaging) which can often confirm the diagnosis.

Treatment

- **Activity modification**

  Reduce the load going through your tendon by avoiding aggravating activities (e.g. jumping, running, squatting) and considering alternative forms of exercises that are lower impact for your knee e.g. swimming, running in water, cycling, cross-trainer. Consider increasing intensity of activity on a more graduated basis and carrying out warm-up stretches for your quadriceps and hamstrings prior to activity.

- **Weight loss**

  (If appropriate) to minimise stress on your tendon.

- **Ice Packs**

  Apply several times daily for a period of 15 minutes each time if swelling is an issue.

- **Compression**

  Consider a patella tendon strapping to relieve pressure on the tendon.

- **Anti-inflammatory medication**

  If oral preparations do not help, consider topical formulations to rub onto the painful area. Anti-inflammatories may have adverse side-effects if you have certain medical conditions or take certain medications so please consult with your GP prior to commencing.

- **Physiotherapy**

  Focusing on stretches and strengthening. For detailed description, please visit the American Association of Hip and Knee Surgeons (AAHKS) Home Exercise Programme. Once you have advanced to and completed the 'Wall Squats', you may wish to complete phase 2 and 3 of the Eccentric Exercise Programme published by Oxford University Hospital. It may take between 3 to 6 months for you to see benefit but the key is to persevere with these exercises.

- **Shockwave therapy**

  Non-invasive treatment aimed at delivering shockwaves to the injured tendon with the aim of promoting its healing.

- **Injection therapy**

  Various types of injections have been described for this condition. These includes high-volume saline injections, injections of your own blood or blood products such as platelet-rich plasma (PRP) and 'dry needling'. They are all aimed at stimulating a healing response within your tendon. Cortico-steroid injections are generally avoided due to the small risks of the tendon rupturing.

Outcome

Recovery time differs from patient to patient but it can take up to 6 months of rehabilitation. The focus with this condition is on self-management and physio-therapy rehabilitation as opposed to other forms of treatment.

DENNIS KOSUGE

CONSULTANT HIP & KNEE SURGEON
BMedSci FRCS (Trauma & Orthopaedics)

RIVERS HOSPITAL
Private
High Wych Road
Sawbridgeworth
CM21 0HH

01279 602718

THE PRINCESS ALEXANDRA HOSPITAL
NHS
Hamstel Road
Harlow
CM20 1QX

01279 827060

To arrange a private consultation with Mr Kosuge:
Request an appointment (online)

For further information, please visit:
www.denniskosuge.co.uk

Disclaimer Mr Kosuge has tried very hard to keep the information in this leaflet accurate and up-to-date, but he cannot guarantee this. This information is provided as an education resource and is not intended to serve as medical advice. For full details, please visit: www.denniskosuge.co.uk/disclaimer. If you are seeking orthopaedic advice, please feel free to arrange a consultation with Mr Kosuge.