

PATIENT INFORMATION LEAFLET

Patello-femoral Pain Syndrome



Patello-femoral Pain Syndrome

This is a condition in which pain is felt in the front of the knee, behind and/or around your kneecap (patella). Other names in which it may be referred to include 'runner's knee', anterior knee pain and chondromalacia patellae (Figures 1 & 2).

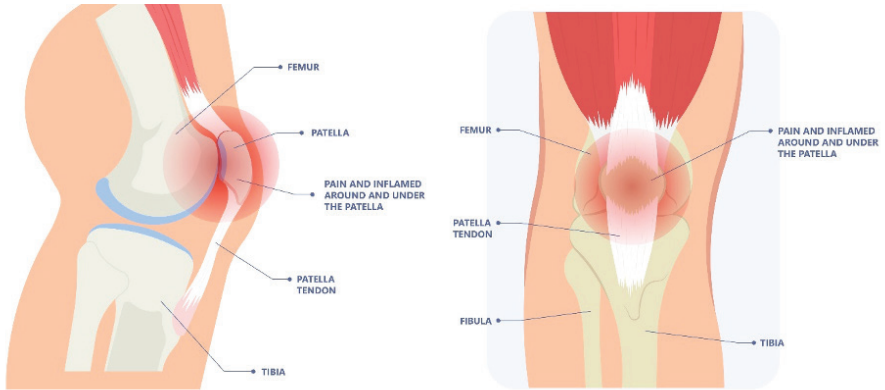


Figure 1

A side view (left) and front view (right) of a right knee depicting the problem area (red zone) in patello-femoral pain syndrome.

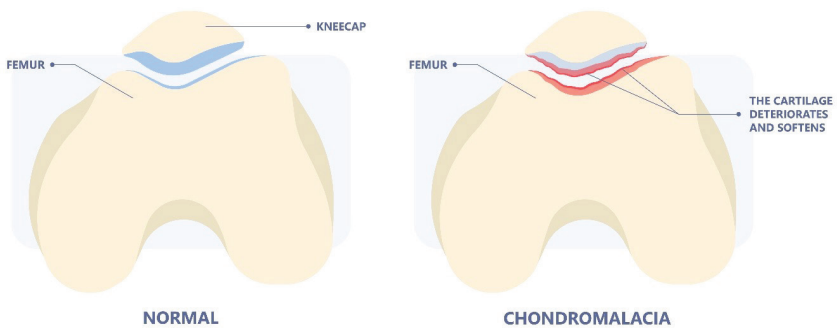


Figure 2

A cross-section view (left) demonstrating the relationship between the kneecap (patella) and the end of the thigh bone (femur). The kneecap sits in a groove within the thigh bone when the knee is bent. Part of the problem in patello-femoral pain syndrome is that the articular cartilage on the under surface of the kneecap and overlying the thigh bone softens and/or wears (right).

Causes

This is a common condition that affects women more than men, and tends to occur in young adults as well as athletes. Whilst the exact reasons are not known, they are thought to be multi-factorial:

- **Overuse**

Repetitive activities that place increased stresses on the joint e.g. running, squatting and climbing stairs.

- **Habitual change**

Changes in how long or how often you exercise can trigger onset of this pain. Changes in footwear or even the surface you exercise on may influence this pain.

Leg alignment

- This refers to the way your leg 'lines up' and abnormalities may lead to your kneecap shifting too far toward the inside or outside of the leg as it glides over your thigh bone.

Muscle imbalance

- Weakness or dysfunction in the quadriceps muscle or tendon can lead to poor gliding of your kneecap over your thigh bone. The muscles around your hip also play an important role. For example, inward movement of your knee when attempting to squat (controlled in part by your hip muscles) has been associated with this pain.

Symptoms

You may experience the following in one or both knees:

- Pain around your kneecap – a dull-ache that is frequently activity-related.
- Worse when negotiating stairs, kneeling, squatting or with prolonged sitting.
- Clicking or grinding that you can feel (or even hear) when you bend or straighten your knee.

Diagnosis

The diagnosis of this condition is mainly a clinical one but you may be sent for investigations such as x-rays and/or scans of your knee to exclude other possible reasons for your pain.

Treatment

▣ Activity modification

Stop aggravating activity and consider alternative forms of exercises that are lower impact for your knee e.g. swimming, cycling. 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 knee joint.

▣ Ice Packs

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

▣ Compression

Consider an elastic bandage with a hole on the front, leaving an opening for your kneecap.

▣ 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.

▣ Footwear

Ensure you have shoes that fit well and have good shock-absorbing features. Consider a consultation with a foot & ankle specialist to rule out conditions that could contribute to abnormal alignment of your leg e.g. could shoe inserts help?

▣ Physiotherapy

Focusing on stretches (quadriceps, hamstrings, gastrocnemius, soleus, gluteus and iliotibial band), strengthening, balance and core stability. For detailed description, please visit [Oxford University Hospital Home Exercise Programme](#).

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 rehabilitation as opposed to surgical intervention. Surgery is rarely required and considered if there are major structural abnormalities contributing to mal-tracking of your kneecap.



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.

© **All rights reserved.** No part of this leaflet may be reproduced or distributed in any form without prior written permission from the author, with the exception of non-commercial uses permitted by copyright law.