

# Patellofemoral pain syndrome, what do I need to know?

## **What is my diagnosis?**

Patellofemoral joint pain syndrome (PFPS) is a broad term for a knee condition causing pain at the front of the knee, around the kneecap (the patella). PFPS is one of the most common knee conditions, affecting people of all ages, but women are affected twice as often as men. It is also known as “runner’s knee” but can also affect those not involved in sporting activities.

Symptoms are often related to activity, with difficulty climbing stairs, kneeling or squatting, or getting up after sitting for long periods of time. It may also be associated with a clicking or grinding sensation when bending or straightening the knee.

## **What causes PFPS?**

Sometimes PFPS can occur after an injury or through overuse, but often it develops without any obvious cause.

Patellofemoral pain syndrome can also be caused by abnormal tracking of the knee cap in its groove at front of the thigh bone (the trochlear groove of the femur bone). When this occurs, the increased pressure between the patella and femur can irritate surrounding soft tissues.

Factors contributing to poor tracking of the kneecap include problems with the alignment of the bones of the knee, or muscular imbalance of the muscles of the thigh/calf.

## **How is it diagnosed?**

PFPS is usually diagnosed by assessment of your symptoms and with physical examination. X-rays can be useful to rule out any damage or abnormal alignment in the bones of the knee joint. MRI scans are not always needed but may sometimes be requested to provide more detailed images of the soft tissues around the knee joint, and may also be requested if there is doubt over the diagnosis or if symptoms are failing to improve.

## **What can help with PFPS?**

Patellofemoral pain syndrome usually responds well to specific exercise and lifestyle changes. You may be offered physiotherapy to address any muscular imbalances/tightness which may be contributing to symptoms.

The following steps may help prevent the symptoms of PFPS:

- Stretching and flexibility exercise for the quadriceps and hamstrings
- Increasing activity gradually, and avoiding activities which cause knee pain
- Avoiding squatting and kneeling whenever possible
- Wearing appropriate supportive footwear
- Maintaining a healthy body weight

Having a healthy body weight avoids overstressing your knees and making the symptoms worse. This can be difficult to achieve when knee pain may initially limit your ability to exercise. NHS Lothian weight management service provides online information for help losing weight at the link below, including a self-referral system if you'd like to advice from a weight-loss dietitian.

<https://services.nhsllothian.scot/awmt2d/>

### **Do I need an operation?**

Surgical treatment for patellofemoral pain is very rare, performed only in severe cases which have not responded to nonsurgical treatment.

### **Where can I find additional information?**

You may find additional information by searching for “patellofemoral pain syndrome” at the following websites:

[www.orthoinfo.aaos.org](http://www.orthoinfo.aaos.org)

[www.nhsinform.scot](http://www.nhsinform.scot)