

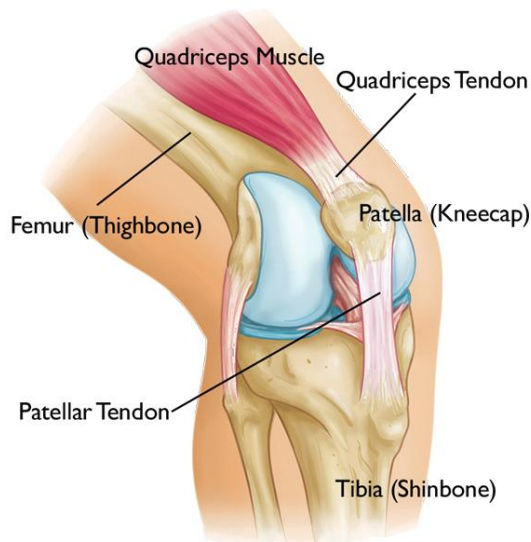
INFORMATION FOR PATIENTS

Patellofemoral pain syndrome

This leaflet aims to provide you with information regarding patellofemoral pain syndrome (a condition where pain is felt around the front of the knee), its common causes and treatments.

What is the condition?

The patellofemoral joint is formed by the back of kneecap (patella) and the lower part of the thigh bone (femur). The kneecap runs or tracks up and down in a groove on your femur bone as you bend and straighten at your knee.



There are many common causes of the condition. In people under 16 years the condition is most likely due to growth spurts.

Other common causes include overuse (especially in sports), misalignment of the kneecap, tightness or weakness in the muscles at the front (quadriceps) and back (hamstrings) of your thigh. Flat feet and hypermobility can be other causes.

What are the signs and symptoms?

- **Pain** - a dull ache which can occur for no apparent reason, becoming gradually worse under and around your knee cap with increased activity such as walking, running and going up and down stairs.
- **Swelling** - may occur at the early stages of injury.
- **Weakness** - the knee may feel unstable and/or give way.
- **Clicking** - you may hear cracking, clicking or grinding noises, especially when you move your knee.

Who can get it?

Anyone can be affected by this condition, but there are specific causes related to age:

- 8-15 years - often related to growth spurts where the tendons attach to areas of fast growing bones.
- 15-30 years - more common with acute trauma such as sports injuries.
- 40 years and over - the most common cause is age related changes which occurs with increasing age.

What can you do to help yourself?

- **Protection** - protect the affected area from further injury, i.e. using a support.
- **Relative rest** - when the knee is painful or becomes swollen, rest can help ease the symptoms. Refrain from activities that are exacerbating the condition. You may need to use crutches or a walking stick in the short term to aid your mobility.
- **Modify activities** - mild discomfort is usually nothing to worry about, but if the pain increases then modifying your activities may be necessary. High impact exercises can be adapted to lesser pain provoking exercises, such as swimming, cross trainer or stationary biking. It is important that you keep moving within your pain limits.
- **Ice** - applying an ice pack (crushed ice in a bag) or bag of peas to the affected area in a damp cloth/kitchen towel for 10-20 minutes, three or four times a day, may help to reduce the pain and swelling. **Do not apply the ice pack/peas directly onto the skin.**
- **Compression** - use a compression bandage during the day to limit swelling.
- **Elevation** - keep your leg elevated so the knee is raised above the level your heart as much as possible to help aid and relieve swelling.
- **Medication** - talk to your GP about appropriate pain relief for this condition and/or anti-inflammatory medications.
- **Stress relief** - utilise techniques such as mindfulness, meditation and deep breathing cycles. Speak to your health care professional for more information.

Clams

- **Sleep hygiene** - consistently getting 6-9 hours is recommended by NHS. Only use your bedroom for sleep, e.g. not for TV.
- **Nutrition** - make sure you have a balanced diet. Vitamin D has been correlated with reduction in joint pain.
- **Smoking** – has been linked with musculoskeletal pain. For more advice see smoking cessation or ask your therapist for more information.
- **Footwear** - supportive shoes with cushioned insoles may help with your pain and mobility.

Exercises you can try

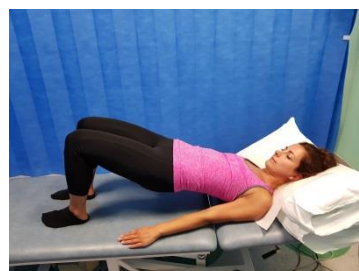
The exercises shown in this leaflet are just an example of what are available for your condition. Your physiotherapist will provide an individualised exercise programme which is the most appropriate for you, with regular reassessment to progress/change your treatment as required to meet your needs.

If your symptoms significantly worsen and you are unable to manage them, please contact your GP or physio-therapist for advice.

Strengthening

Repeat each exercise 10-15 times, three or four times daily.

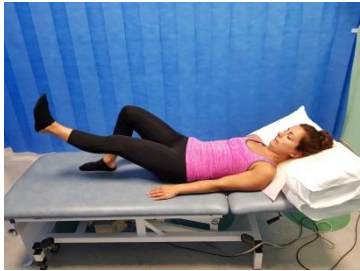
Bridging



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Straight leg raise



Mini-squats <math><30^\circ</math>



Heel raises



Knee extensions with a Theraband or ankle weight



Toe raises

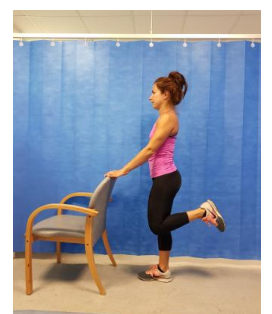
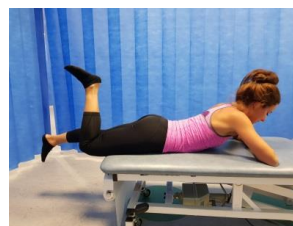


Sit to

stand



Hamstring curls



Contact details

Therapy Services Department
Clinic 10
King's Mill Hospital
Mansfield Road
Sutton in Ashfield
Nottingham
NG17 4JL

Telephone: 01623 622515, extension 3221.

Further sources of information

NHS Choices: www.nhs.uk/conditions
Our website: www.sfh-tr.nhs.uk

Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

King's Mill Hospital: 01623 672222
Newark Hospital: 01636 685692
Email: sfh-tr.PET@nhs.net

If you need this information in a different language or format, please contact the PET (as above).

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you.

External websites may be referred to in specific cases. Any external websites are provided for your information and convenience. We cannot accept responsibility for the information found on them.

If you require a full list of references for this leaflet, please email sfh-tr.patientinformation@nhs.net or telephone 01623 622515, extension 6927.

To be completed by the Communications office
Leaflet code: PIL202202-03-PPS
Created: August 2018 / Revised: February 2022 /
Review Date: February 2024