

Patellofemoral joint pain

Patient information factsheet

What is patellofemoral pain syndrome?

- Patellofemoral pain (PFP) is pain that is felt at the front of the knee, around the kneecap (patella), without signs of any damage or other problems in the knee joint.
- Patellofemoral pain syndrome may also be referred to as anterior knee pain, or runner's knee.
- The patella is the kneecap bone. It lies within the quadriceps tendon. This large tendon from the powerful thigh muscles (quadriceps), wraps round the patella and is attached to the top of the lower leg bone (tibia). The quadriceps muscles straighten the knee.
- The back of the patella is covered with smooth cartilage. This helps the patella to glide smoothly over the lower part of the thighbone (femur) when you straighten your leg.
- Patellofemoral pain is a general term used for pain in the front (anterior) of the knee.

Patellofemoral pain symptoms?

- PFP is a very common condition that affects males and females of all ages and activity levels.
- Activities that commonly aggravate PFP are sitting for a long time, squatting, going up and down stairs, kneeling, walking, and running.
- Other symptoms often reported include stiffness, clicking, grinding, and a sensation of catching. The pain usually comes and goes.

What causes patellofemoral pain?

- There are no specific causes for PFP and they will be different for everyone. Listed below are some risk factors that can contribute to it happening:

Excessive loading

- Doing a lot more physical activity suddenly can make your knee hurt. This is because your knee might not be used to the extra work. It's better to slowly increase how much you do. Taking care of how and when you move is an important part of managing knee pain.

Reduced muscle strength

- People with PFP often have weak muscles in their hips and thighs. This can make it harder for the kneecap to stay in place, especially when doing things like going up stairs. Doing exercises to make your muscles stronger can help support your knee and reduce the pain.

Biomechanics

- If the way you move your hips, knees, or feet isn't quite right, it can put extra pressure on your kneecap and cause PFP.
- A past knee injury or surgery can also make this more likely.

How is PFP diagnosed?

- The diagnosis is made from your symptoms, the history of the problem, plus a physical examination of your knee.
- Tests, such as X-rays or scans, cannot diagnose PFP and are often not helpful. However, sometimes they might need to be done to diagnose other conditions.

How is PFP treated?

Physiotherapy

- Physiotherapy is usually the first way to treat knee pain (PFP).
- It's a good idea to see a Physiotherapist, so they can check how your body moves and give you the right exercises just for you.
- The goal of Physiotherapy is to help your knee get stronger and handle more movement and activity without hurting.

Pain killers

- These can be useful to manage the symptoms related to PFP and help manage the pain. Your GP or pharmacist will be able to provide advice on the most suitable pain killers for you.

Podiatry

- Some people may benefit from seeing a Podiatrist (foot specialist). You can complete a self-referral form on the podiatry webpage here <https://www.whittington.nhs.uk/default.asp?c=35728> or discuss with your Doctor or Physiotherapist who can refer you if necessary.

Taping

- Your Physiotherapist might recommend taping and this can be used to assist with short term pain relief. They will explain what this is and can show you how to apply tape if you find this method works for you.

Weight Loss

- If you are overweight, it can put extra pressure on your knee joint and make things like squatting or climbing stairs harder.
- Keeping a healthy weight can help take some of the load off your knees and reduce pain. It's also good for your overall health and can help prevent other problems like diabetes and high blood pressure.

How to manage ongoing pain

- Unfortunately, there is no quick fix for PFP.
- Taking a break from activity and exercise might help your knee feel better for a little while. But to keep it feeling good for a long time, you'll need to keep doing the right exercises.
- Getting stronger and better can take months, not just a few weeks.
- Flare ups of PFP are normal, sometimes they can come on without warning. Try and modify your activity and then gradually build up again.

Example of home exercises

Bridge



Start in crook lying. Lift yourself up, peeling one vertebra at a time until your thighs are about on a straight line with your torso.

Lower yourself on the floor doing the reverse motion of putting down one vertebra on the ground at a time. Do not lift the head off the floor.

Hip abduction



Lay on your side with your head supported and lower leg bent.

Lift the top leg up to about 30 degrees, keeping the foot parallel to the ground and the thigh aligned with the body (do not move it forward as you lift).

Wall slides



Stand up against a wall with your feet in front of you (when your thighs are parallel to the ground your knees should be at 90 degrees).

Slide up and down the wall, keeping the upper body in contact with the wall.

Go down to parallel with your thighs.

Keep the knees in line with the feet.

Single leg balance



Stand and lift one leg.

Hold that position for 30-60 seconds 3 times.

Extra information

<https://patient.info/bones-joints-muscles/knee-pain-patellofemoral-pain>

<https://www.nhslanarkshire.scot.nhs.uk/services/physiotherapy-msk/patellofemoral-pain-syndrome/>

Contact our service

MSK CATS and Physiotherapy Services

Tel.: 0207 288 3317 Email: whh-tr.mskinterfaceservice@nhs.net

Contact our Trust

If you have a compliment, complaint or concern, please contact our Patient advice and liaison service (PALS) on **020 7288 5551** or whh-tr.PALS@nhs.net.

If you need a large print, audio or translated copy of this leaflet, please email whh-tr.patient-information@nhs.net. We will try our best to meet your needs.

020 7272 3070 | Whittington Health NHS Trust, Magdala Avenue, London, N19 5NF
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