

Patient information

Patellofemoral pain syndrome

(anterior knee pain)

Barts Health Physiotherapy Website:

www.bartshealth.nhs.uk/physiotherapy



What is patellofemoral pain syndrome?

Patellofemoral pain syndrome is a common condition affecting the front of the knee. Pain is felt underneath the knee cap.

What causes patellofemoral pain syndrome?

Pain is felt underneath the knee cap (patella) where it rubs on the thigh bone (femur). It is thought that the position of the knee cap and the way it moves (tracks) up and down when the knee bends can cause pain.

The following things may also contribute to this pain:

- Weakness of the hip and thigh muscles
- The position or 'posture' of the foot
- Tight muscles surrounding the knee
- Previous injury or dislocation of the knee cap
- Lots of sitting – such as in desk jobs. This can increase the pressure behind the knee cap

What are the symptoms?

- Pain at the front of the knee / underneath the knee cap.
- Pain can also be felt at the back or sides of the knee
- Pain when bending or straightening the knee
- Pain when sitting with the knee bent for long periods.
- Clicking or grinding sounds when you bend or straighten the knee.
- Pain when going up and down stairs or hills, squatting, running or jumping.

What can I do to help reduce my pain / symptoms?

- Wearing well-fitted and supportive shoes such as trainers.
- Simple pain relief such as paracetamol and non-specific anti-inflammatories (NSAIDS) may help (e.g. Ibuprofen). Discuss with your pharmacist or GP.
- Think ahead about activities that may increase your symptoms
 - If you are planning e.g. a walking holiday/a running race, ensure you prepare and train for it gradually to avoid a sudden increases in activity.
 - If you have a high body weight, healthy eating and steady weight loss may help you reduce your pain.

- Reduce the amount of any particular movements that increase your pain.
- Exercises to strengthen your thigh and hip muscles (see below section).
- If your pain does not improve with the above, physiotherapy can give you advice about how to manage your condition. Physiotherapy can also teach you more strengthening and stretching exercises that may help.

What exercises can I do to help reduce my symptoms?

Exercises may cause a slight ache or pulling feeling in your muscles. If any of the exercises increase your pain, stop doing them.



- Stand behind a chair or facing a wall with the painful foot behind you.
- Keeping both the heels on the floor and back leg straight, slowly bend the front knee until you feel a stretch in the calf
- Hold 40 seconds. Repeat 4 times a day



- Lying on your back, lift your hips up as shown
- Then lower your hips down slowly returning to starting position.
- Repeat 10 to 20 times.
- If you are able, repeat this process 3 times



- Lying on your side lift up your top leg and hold for 3 seconds.
- Lower it back down
- Repeat 10 to 20 times.
- If you are able, repeat this process 3 times



- Stand in front of a table or chair
- Slowly squat down keeping your back straight and heels on the floor.
- Repeat 10 to 20 times
- If you are able, repeat this process 3 times

What if my symptoms do not improve?

If your pain does not improve with the exercises or your pain and symptoms increase, please see your GP for further information.

Where can I get more information?

1. www.patellofemoral.completesportscare.com.au
2. www.physioadvisor.com
3. www.sportsmedicine.com
4. www.physioroom.com

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www.bartshealth.nhs.uk/pals

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