

Patellofemoral Pain Syndrome

What is Patellofemoral Pain Syndrome?

Patellofemoral pain syndrome (PFP) or anterior knee pain is an umbrella term used to describe pain felt at the front of the knee or around the knee cap (patella). Many factors can contribute to this condition, such as an injury, flat feet, tightness or weakness in the lower leg muscle.

Every time your knee straightens and bends your knee cap moves up and down a groove in your thigh bone (femur). If the muscles in your thigh or buttock are weak or tight this can have an influence on this movement and overtime this can cause pain. By correcting these imbalances this will most likely improve your symptoms.

What are the symptoms that have led to me having this condition?

The most common symptoms of PFP are pain around the patella and clicking on movement. Symptoms are often aggravated by prolonged activity such as walking, sports or sitting. These symptoms can often be worse first thing in the morning and towards the end of the day.

Knee anatomy



The knee joint is very complex, with many structures capable of producing pain. The main muscles in the thigh (the quadriceps) connect into the patella and a strong tendon below the patella attaches it to the shin bone (tibia). There are also sacs of fluid (bursae) which act as shock absorbers, situated around the patella which can become inflamed and aggravated.

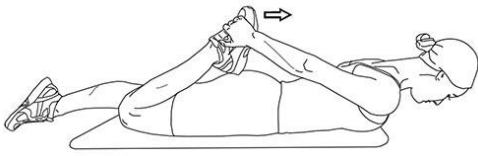
The muscles in the back of the leg (hamstrings and gluteal) can also have alter leg positioning, therefore can also contribute to your symptoms.



Physiotherapy for Anterior Knee Pain?

For the reasons stated above the best way to resolve the symptoms associated with anterior knee pain is to stretch the tight muscles and strengthen the weak ones as shown in this leaflet.

These exercises should be completed twice daily. This should improve the muscle imbalance and allow the knee to move freely and effectively and thus reducing pain.



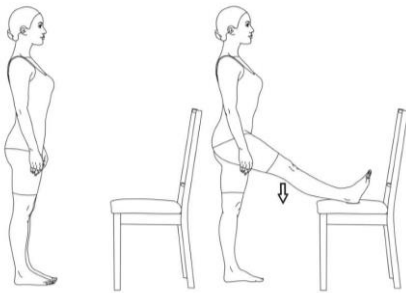
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Quadriceps Stretch

Lying on your stomach, pull your foot towards your bottom (If you cannot reach your foot, use a towel wrapped around your ankle or your trouser leg). You should feel a stretch in the front of your thigh.

Hold for 30 Seconds

Repeat Twice on Each leg, 4 times a day.



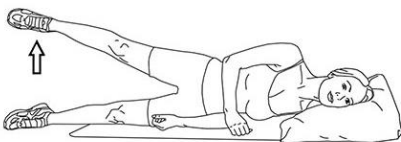
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Hamstring Stretch

Sitting or standing making sure you can hold on to something for balance. Place your foot on a floor or chair. Keeping your stretched knee straight, bend your torso forwards slightly. You should feel a stretch in the back of your thigh.

Hold for 30 Seconds

Repeat Twice on Each leg, 4 times a day.



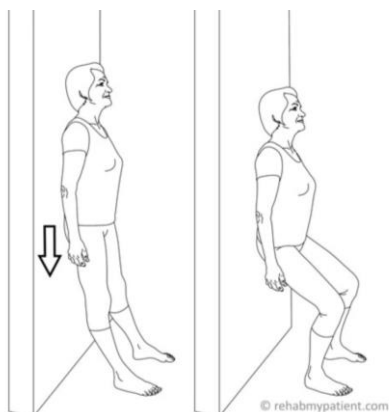
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Side lying abduction

Lying on your side with your top knee straight and feet facing forwards. Slowly lift your top leg upwards a few inches and then slowly lower back to the bed or floor.

Repeat sets of 10, until fatigue

Once a day.



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1/2 Wall Squat

Leaning up against a wall or closed door. Keeping your feet shoulder width apart, slide down the wall until your knees are bent to approximately 45 degrees. Then slowly straighten your knees and slide back up the wall.

Repeat sets of 10, until fatigue

Once a day.

How quickly will my exercises start to make a difference?

Usually you won't feel any noticeable difference for at least 6 weeks. Your knee should start to feel some benefit after about 8 weeks of regularly doing the exercises above. It is likely that the exercises will feel uncomfortable. However if you find the exercises increase your pain significantly or it hurts to do them then you should reduce or stop doing them.

What are the alternatives?

X-rays and scan are usually normal and do not normally help to manage PFP. The typical treatment for this condition is a course of physiotherapy exercises. Surgery is very rarely an option and often of little benefit.

What are the potential risks and side effects?

The exercises are likely to make your muscles and knee ache for the rest of the day and the next couple days. This is known as delayed onset muscle soreness and is a normal reaction to exercise. However there is a small chance that exercise could aggravate your symptoms, as stated above. Often reducing the number of exercises will make them tolerable and over time you can increase the number of exercises. If you continue to struggle you should contact your physiotherapy department or GP.

Consent

Although you consent for this treatment, you may at any time after that withdraw such consent. Please discuss this with your medical team.

Sources of information

- www.bbc.co.uk/science/humanbody/body/factfiles/bonegrowth/femur.shtml
- www.childrenshealthnetwork.org/CRS/CRS/pa_growthpr_peg.htm
- www.rehabmypatient.com

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team - Tel: 0300 131 4500 Ext: 135860 or by email: esh-tr.patientexperience@nhs.net.

Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department - Tel: 0300 131 4500

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

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Out of Hospitals, MSK physiotherapy.

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