

Understanding Patellofemoral Pain



Patellofemoral pain also known as Runner's Knee is discomfort originating from the kneecap or the structures around it. It is a common condition, with approximately 25% of people experiencing patellofemoral pain at some point in their life.

This leaflet aims to provide information on the causes and treatment of patellofemoral pain.

What Causes Patellofemoral Pain?

Patellofemoral pain can be caused by a combination of factors that increase pressure on the back of the kneecap and the surrounding structures. Simple activities such as walking down hills, running, kneeling, squatting, or going downstairs can be painful. Additionally, there may be grinding or clicking sensations in the knee.

Is the grating sensation concerning?

The grating noise or sensation can be distressing but is not associated with osteoarthritis. It is not concerning, and it is important to keep exercising even with noisy knees.

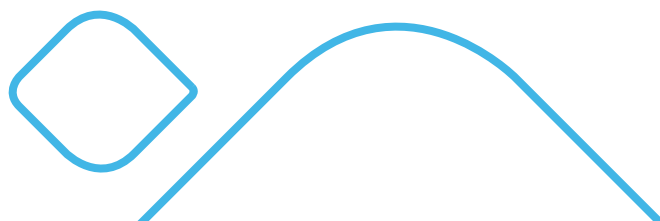
What is the Treatment for Patellofemoral pain?

Activity Modification: You may need to reduce the intensity of the sports or exercise particularly if it makes your knee sore. Low-impact activities like swimming and cycling can be beneficial during this period. It is important to stay as active as possible.

Gradual Return to Activity: Once the pain subsides and the knee strengthens, gradually return to normal activities and sports to avoid overloading the knee too quickly.

Exercises: Simple exercises to strengthen the quadriceps (thigh), calf, and hip muscles can stabilise the knee, reducing pressure on the kneecap joint. **It is important to find exercises that strengthen the muscles but do not aggravate the knee pain.**

Physiotherapy: A Physiotherapist can provide individualised advice and help to devise an exercise programme. They may also demonstrate taping techniques that can help to reduce the pain.



Insoles: Simple insoles or shoe inserts with arch support can help reduce Patellofemoral pain.

Patellar Taping: Taping the knee can reduce pain during activities. This can make strengthening the muscles more comfortable. •

[Video link: How to tape your kneecap using rigid tape.](#)

[Video link: How to tape your kneecap using flexible tape.](#)

Weight Management: If excess body weight contributes to the pain, weight loss can help reduce pressure on the knee joint.

Pain Relief: Simple pain medicines can help to reduce the pain. These can be bought in pharmacies without a prescription. Talk through the best options for you with a pharmacist.

Walking Poles: Using walking poles during walking or hiking can distribute the load and reduce knee impact, especially on uneven terrain or inclines.

Knee Pads: Knee pads provide cushioning and protect the knees from impact during activities like kneeling or crawling.

Reducing stress: Through meditation, mindfulness breathing exercises and getting plenty of sleep.

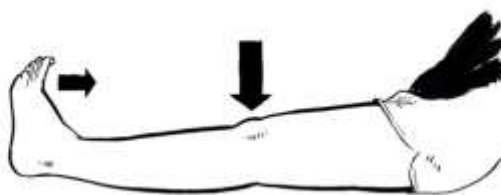
Strengthening Exercises

Try to do these exercises 3 times a week.

1) Static quadriceps contractions/Knee push downs

Sit or lie with your leg in front of you and try to tense your thigh muscles, at the front of your thigh, as you push your knee down into the bed.

Video link [Static quadriceps](#)

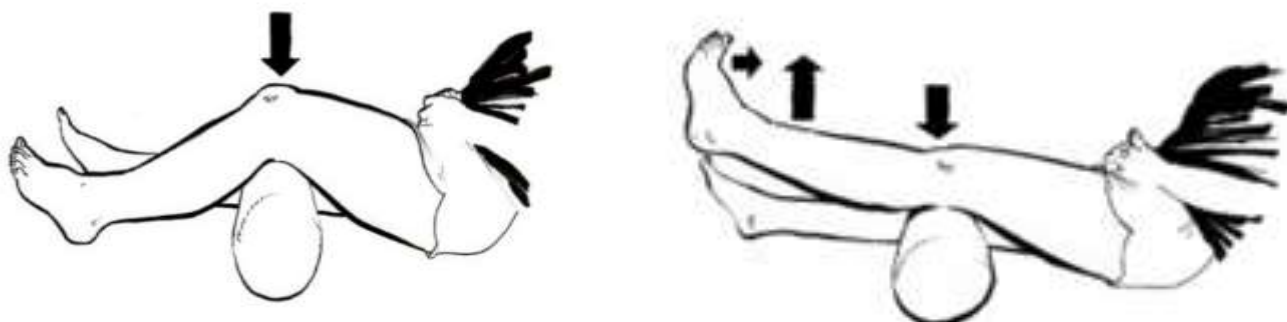


Repeat 10 times **Do this 3 times.**

Make it harder by Trying to push down into the bed harder for longer.

2) Inner range quadriceps strengthening

Video link: [inner range quadriceps strengthening](#)



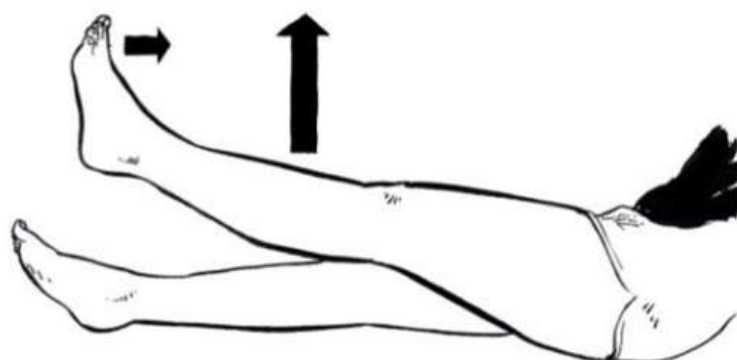
Lie on your back and place a rolled-up towel under your affected leg. Pull your toes towards you, push downwards, and lift your leg so your heel is off the bed. Hold for 5 seconds before relaxing.

Repeat 10 times **Do this** 3 times.

Make it harder by increasing the number of exercises until your muscles feel tired.

3) Straight leg raise quadriceps strengthening.

Video link: [straight leg raise quadriceps strengthening](#)



Lie on your back with your leg out in front of you.

Tense your thigh muscle as you lift your straight leg approximately 15 cm.

Slowly lower your leg down.

Repeat 10 times **Do this** 3 times.

Make it harder by increasing the number of repetitions.

4) Advanced Quadriceps Strengthening, only try this if the above exercises are very easy.

Video link: [step-up](#)



Stand with the foot of the affected leg up on a step. This foot stays on the step throughout this exercise. Step up onto the step with your other foot and then step off with this leg.

Repeat 10 Do this 3 times.

Make it harder by holding a small weight or increasing the height of the step.

Additional exercises

Symptoms may also be relieved by strengthening calf and gluts and stretches to calf and quadriceps (thigh).

These exercises can be found on the physiotherapy website.

[Physiotherapy exercises](#)

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Please contact the Patient Support and Complaints Team (PSCT) if you require this leaflet in a different format, or would like to feedback your experience of the hospital.

Email ruh-tr.psct@nhs.net or telephone 01225 825656.

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