

Patient Information

What is PFPS?

Patellofemoral pain syndrome (PFPS) is an umbrella term describing pain at the front of the knee, around or behind the kneecap (patella). This joint between the kneecap (patella) and the thigh bone (femur) is known as the patellofemoral joint.

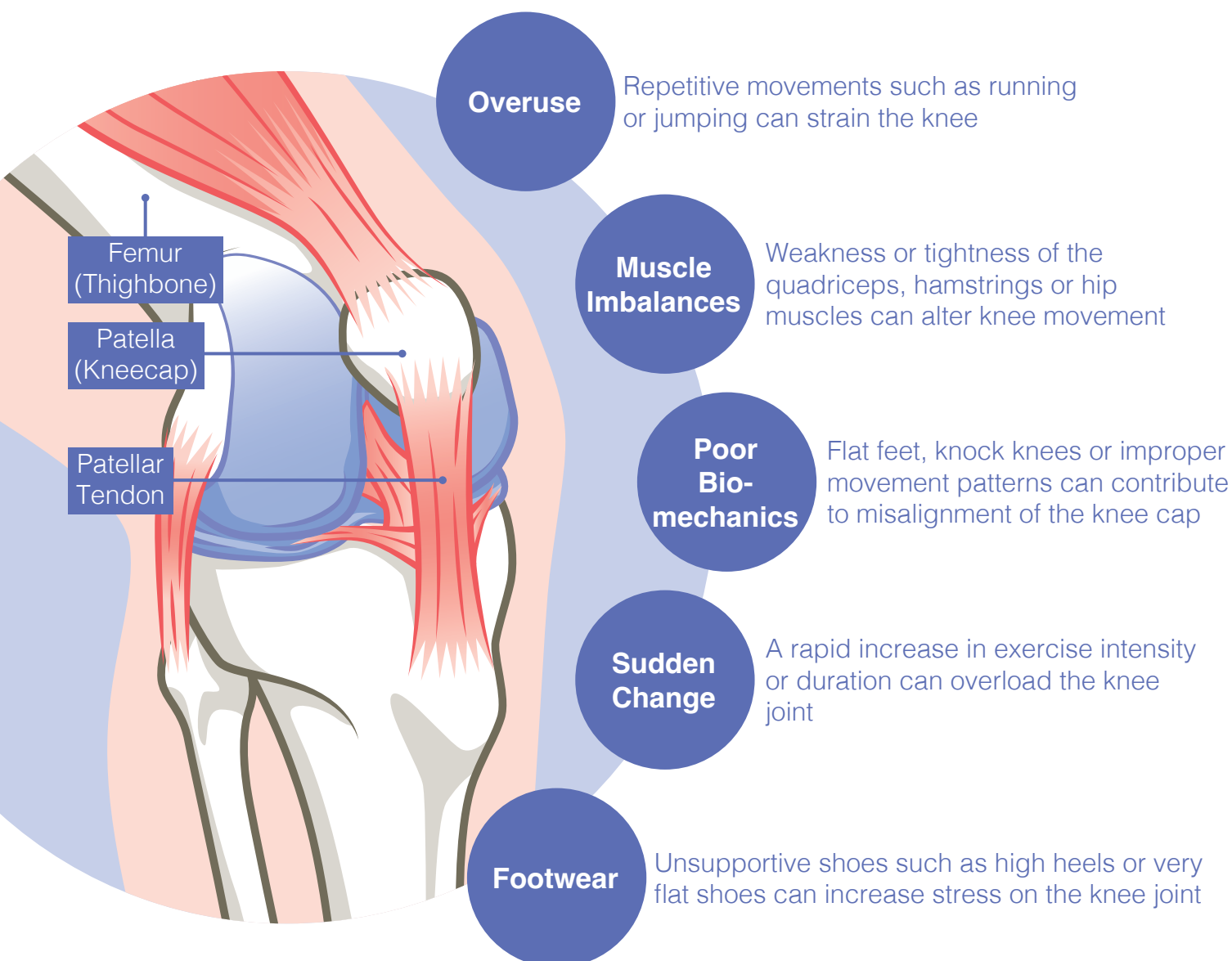
It usually occurs when the kneecap does not move smoothly over the thigh bone, leading to irritation of the soft tissues at the front of the knee.

PFPS is one of the most common causes of knee pain, it can affect both men and women, but women are twice as likely to develop PFPS. It affects people of all age groups and activity levels.

In most cases diagnosis is based on symptoms and clinical examination. There is usually no need for a scan.

Why?

PFPS usually occurs without injury to the knee, but can very occasionally be as a result of injury such as a direct fall onto the knee. If you have not injured your knee, it can be difficult to find one specific cause of your PFPS. There are a range of possible factors which increase your risk of developing PFPS, that is unique to you.



What are the symptoms of PFPS?

These can vary from person to person but can include:

- Aching pain at the front of the knee or around/behind the kneecap.
- Pain when loading the knee in a bent position, eg.
 - Stairs (especially going down)
 - Squatting, lunges or kneeling
 - Running, jumping or hill walking
- Pain or stiffness after sitting for a long time with the knee bent ('cinema sign')
- Sometimes mild swelling or creaking/grinding noises, which are usually not a sign of damage.

What treatment options are available?

Current research shows that the most effective treatment is a combination of education, exercise and activity modification. Other options can be added where needed as adjuncts to symptom management

Exercise therapy

There is very strong evidence in favour of combining both hip and knee targeted strengthening exercises for reducing pain and improving function in those with patellofemoral pain. To strengthen the muscles takes time, it is recommended that you should do the exercises for at least 3 months to feel the benefits.

Foot Orthoses (Insoles)

Prefabricated (Off-the-shelf) orthoses can help reduce pain and improve function in the short term for some people. They are not a stand-alone treatment, and are useful only when used alongside exercise therapy, particularly when pain is limiting progress with rehabilitation.

Taping

Taping around the kneecap can provide short-term relief and make exercise more comfortable. Evidence supports it as an adjunct to exercise rather than a long-term solution.

Manual Therapy

Manual therapy (hands on techniques) can provide small improvements in function in the short-term to help facilitate exercises, but is not effective on its own.

- ▶ Injections and Surgery are rarely needed in PFPS and are usually considered only when a full, well-followed rehabilitation programme has not helped and another structural problem is suspected.

Things I can do to help myself:



Activity Modification

- Avoid activities that cause sharp knee pain, such as running on hills, deep squats or prolonged sitting with knees bent.
- Gradually build activity levels and include low-impact exercises like swimming or cycling. If you want to increase running distance or time, only increase by 10% each week. Vary your training, combining different speeds, distances or times. This allows the knee to adapt to the loads placed upon it.



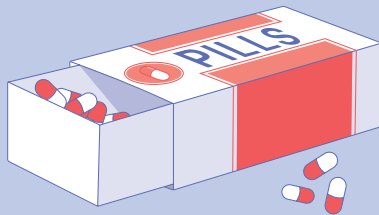
Footwear

- Wear supportive shoes with good cushioning, avoid worn-out trainers. If training, runners should be changed every 300-500 miles, consider having two pairs 'on the go' at the same time.
- If advised by your healthcare professional, consider orthotic insoles to improve foot alignment and reduce knee stress.



Ice

- Apply an ice pack to the front of the knee for 10-15 minutes after activity to reduce pain. Always place a thin cloth between the ice and skin.



Medication

- Over the counter pain relief, such as paracetamol or non-steroidal anti-inflammatory drugs (NSAIDs) like ibuprofen, can be used for short term symptom control if safe for you. Always follow dosage instructions and consult your pharmacist or doctor first.



Weight Management

- Maintaining a healthy weight reduces the load on your knees and can ease symptoms. A balanced diet and regular low impact exercise support both weight control and joint health.



Stress Management

- Chronic stress can increase muscle tension and pain perception. Techniques such as deep breathing, mindfulness or gentle stretching can help manage stress levels.

When should i seek further help?

Contact your GP, physiotherapist or other health professionals if:

- Your pain is getting worse over time despite following advice and exercises
- Your knee suddenly becomes very swollen, hot or you feel unwell.
- Your knee gives way or locks repeatedly
- You are unsure how to progress your exercises or activity

Patient Exercises

It is normal to experience some discomfort during and after exercise. Below is a pain scale which we recommend that you follow when exercising. Exercise related discomfort should settle within 24hr after activity

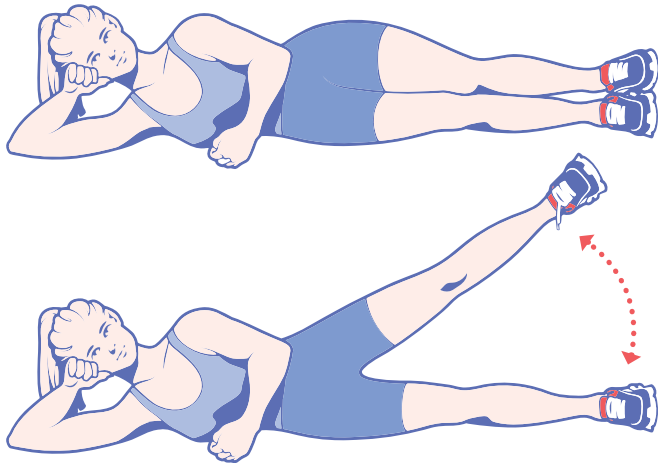
Responses to monitor during exercise:

No pain 0...1...2...3...4...5...6...7...8...9...10 **Severe Pain**

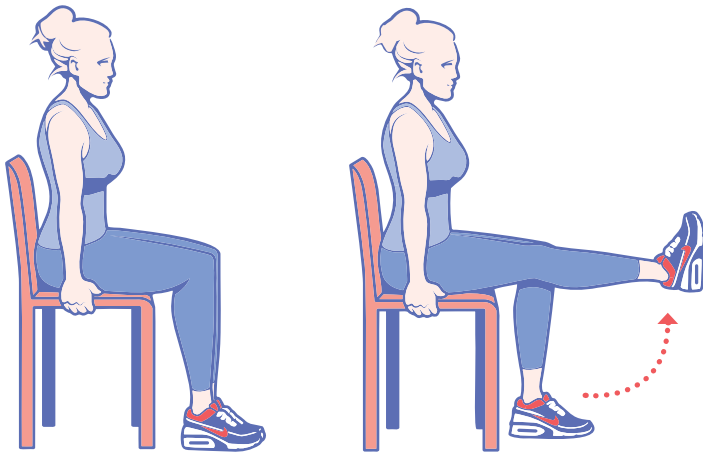
0-3 Safe zone

3-5 Acceptable

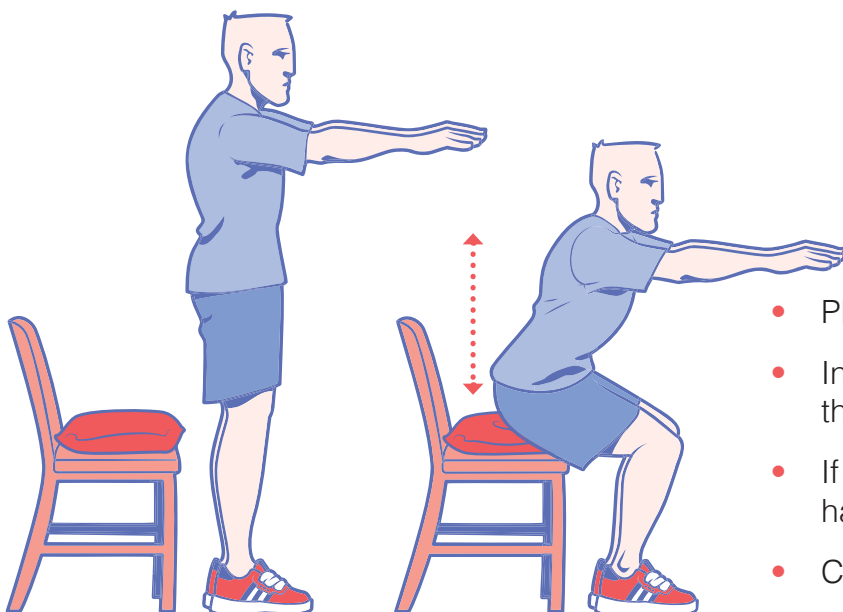
6-10 Excessive



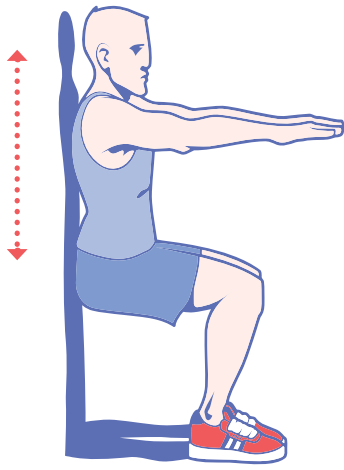
- Begin by lying on your unaffected side.
- As shown in the picture lift your effected leg up, keeping your toes pointed forward.
- Slowly relax your leg back down to the starting position and repeat.
- Complete 3 sets of 12 repetitions once a day.



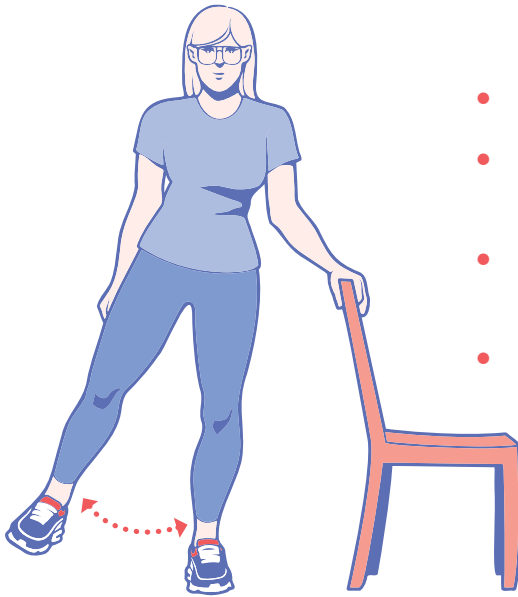
- Begin by sitting on a chair. In a controlled manner straight one leg as displayed in the picture.
- Hold the leg straight for 2 seconds then slowly relax it back to the starting position.
- Complete 3 sets of 12 repetitions once a day.
- Repeat on both sides.



- Place a cushion on a chair behind you.
- In a slow and controlled manner, sit down to the cushion then stand back up again.
- If you are able, do this without using your hands.
- Complete 3 sets of 12 repetitions once a day.



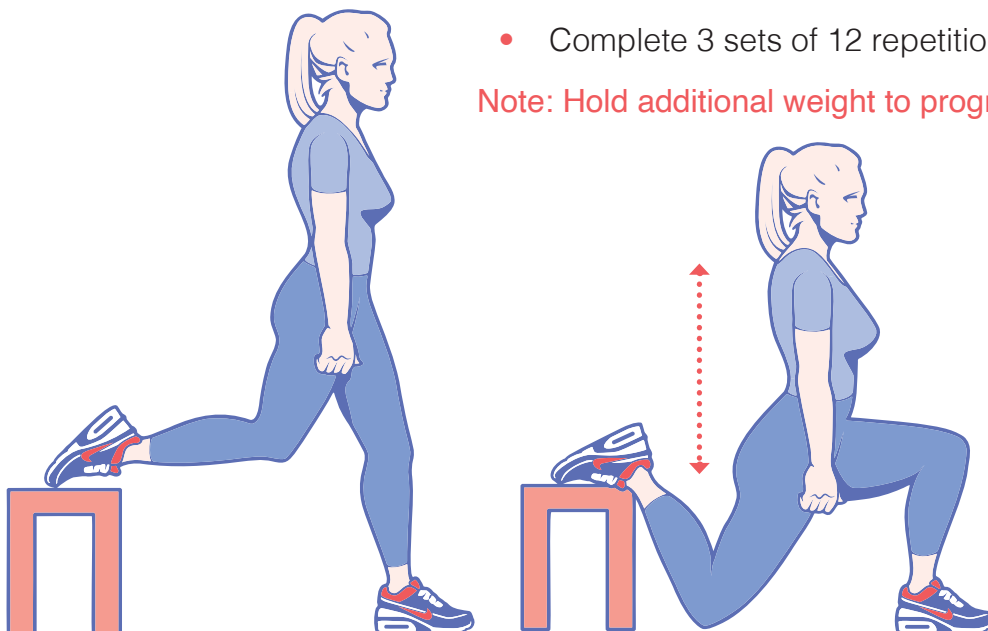
- Stand with a wall behind you. Lean with your back against the wall.
- Slide your back down the wall into a sitting position.
- Hold this position for 30 seconds (or if shorter then as long as you are able) then slide yourself back into a standing position.
- Repeat 3 times once a day.

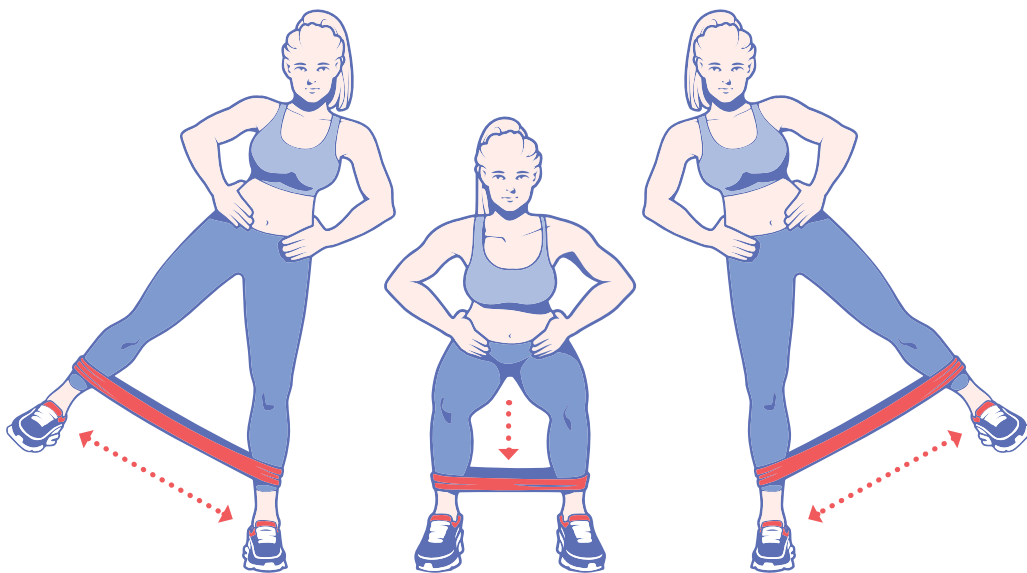


- Stand with a chair or surface next to you for support.
- As shown in the picture lift your effected leg to your side, keeping your toes pointed forward.
- Slowly relax your leg back down to the starting position and repeat.
- Complete 3 sets of 12 repetitions once a day.

- Stand with a surface approximately knee height behind you.
- Place your unaffected on this surface, as shown in the picture.
- Once in the position displayed bend your affected (front) leg lowering yourself downwards, then push yourself back to the standing position.
- Complete 3 sets of 12 repetitions once a day.

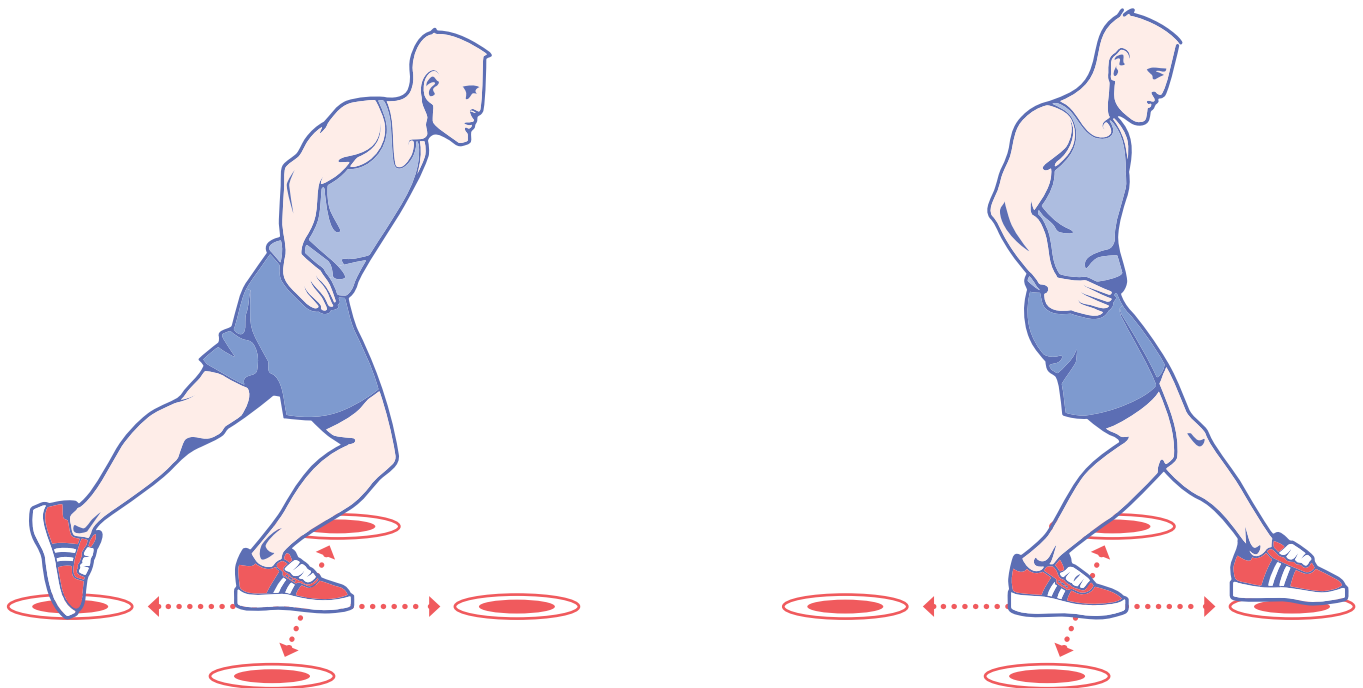
Note: Hold additional weight to progress this exercise





- Place a resistance band around your ankles and stand with your feet shoulder width apart.
- Begin by lifting one leg to your side, keeping your toes pointed forward. Then return to the starting position.
- Once in the starting position perform a squat, then complete the same leg lifting move with the other leg and repeat.
- Complete 3 sets of 12 repetitions once a day.

Note: Use a heavier resistance band to progress this exercise



- Stand on your affected leg with a slight bend as shown.
- Then with your other leg tap a spot in front of you then behind you to the left and to the right.
- Try to only make light contact with the floor and maintain balance on the affected leg throughout.
- Repeat this movement for 45 seconds and complete 3 sets once a day.

Note: Aim to tap your foot further away from your body to progress this exercise