

# Anterior knee pain (patellofemoral pain)

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**Sometimes the kneecap is held slightly out of position within the groove which can cause pain. The pain usually begins gradually, however on occasions it may occur suddenly following a specific incident.**

The patella or knee cap is the small bone in the front of your knee. It normally fits into a groove on the thigh bone. It moves up and down in this groove as you bend and straighten your knee. There is a layer of cartilage where the two bones meet which allows them to glide and slide and avoiding them rubbing together.

Anterior knee pain is also known as patellofemoral pain.

## What causes anterior knee pain ?

There are a number of factors that can cause anterior knee pain:

- Muscle tightness or weakness in the hip, knee or ankle.
- Altered biomechanics, for example, foot position.
- Overuse, for example, sporting activities.
- Kneeling on hard surfaces.

## What are the symptoms?

You may experience some of the following:

- Pain beneath or around the kneecap.
- Clicking or grating of the knee.
- Pain after prolonged sitting.
- Pain worse on stairs, kneeling or squatting.
- Pain on running, especially downhill.
- Occasional swelling.
- A feeling of locking in the knee.
- Some weakness or feeling of giving way.

## What tests can be done?

If you see a healthcare professional they will ask you questions and carry out a clinical examination to help establish the cause of your problem.

## What are my treatment options?

Treatment options include:

- Reduce or stop any activities that produce your pain.
- Apply ice packs for up to 10 minutes to relieve your pain.
- Identify any changes in your lifestyle that may have coincided with the onset of your pain, for example, wearing different shoes, a new activity). Try stopping the activity to see if it helps your pain.
- Lose weight.

You can find more [information about treating muscle, bone and joint problems](#) in the NHS inform MSK Zone.

## Reduce muscle tightness by stretching

Put your sore leg on a step or just in front, and:

- Lean forward until you feel a stretch up the back of your leg.
- Hold for 20 seconds and repeat 3 times, 4 times daily

## Strengthening exercises

Lying on your good side, with your toe pointing forward:

- Lift your leg 20cm off the bed
- Hold for 5 seconds then relax
- Repeat 10 times, 2 times daily

You can find some [simple exercise to get you started](#) in the Musculoskeletal (MSK) Zone on NHS inform.

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## Further information

If you have a muscle, bone or joint problem, visit the [MSK Zone](#) on NHS inform for self-management advice and exercises to get you moving normally, and safely.