



# Linda Stevenson

## PHYSIOTHERAPY

### Anterior knee pain

Also known as Runner's Knee or Patellofemoral Syndrome, this is a common complaint across all age groups and affects the sporty and sedentary alike.

#### What is it?

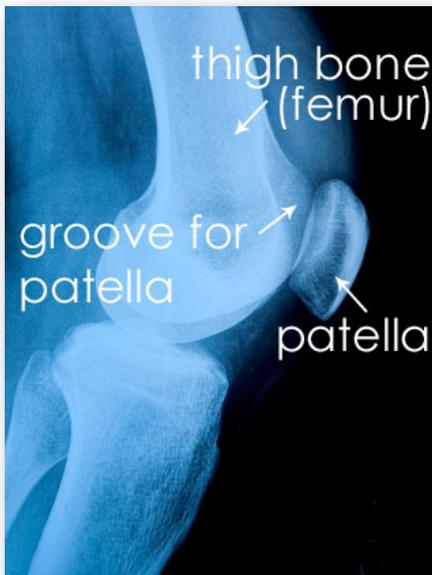
Pain around the front of the knee caused by inflammation. It's not always felt during exercise but often afterwards, and/or sitting in a confined space for long periods, for instance in the car or on an aeroplane. It can affect one or both knees, depending on the cause. The pain usually presents as a vague ache under the knee cap, and is eased by moving the knee around.

#### Why does it happen?

The problem is mechanical and relates to how the various parts of the knee work together.

Quite often it seems to start for no apparent reason, but it can sometimes be traced back to an increase or change in sporting activities like hill walking, especially down steep slopes, and running. It might come on gradually or start suddenly, and the pain may keep some people awake at night.

The other cause of anterior knee pain is a fall on the knee.



#### Anatomy

The patellofemoral joint is separate from the knee joint itself though they are intricately related. The main muscle on the front of the thigh is the quadriceps, which is made up of four muscles. This forms a tendon at the top of the patella which the patella itself sits in. The tendon then travels down and attaches to the tibial tubercle (this is the knobbly bit below the patella). The patella slides on a groove on the top of the thigh bone (femur). If this is not a smooth slide then the mechanism is affected and irritation of the joint can start.

Mechanisms affecting this slide include parts of the quadriceps not pulling equally, or tightness in the muscles round the back of the thigh, calf or hamstrings. Poor mechanisms affecting how the leg hits the ground, eg: flat footed, knock-kneed due to poor glute control or generally poor technique during exercise, can all cause irritation.

#### Who gets it?

Anterior knee pain affects all ages, from the athlete who is training for a marathon to the elderly and children who have recently had a growth spurt.

#### What can be done to help?

Start with a thorough biomechanical assessment by a physiotherapist. They will look at how you stand and move to determine the reason for the pain and how to stop the irritation. Then the inflammation can be reduced with treatment in conjunction with a comprehensive home exercise program.

**What can I do myself?**

Work out what is causing the pain and stop that activity. Use ice to reduce the inflammation. Make sure that your equipment is of good quality, eg: your trainers fit and provide the correct support.

Avoid open chain exercises, which is where you are exercising with the foot resting on something other than the floor, such as a bike pedal. With closed chain exercises the whole biomechanical model is in a better position to work. Swimming is a grey area, but my advice would be to avoid breaststroke legs.

**How quickly will I get better?**

This is dependent on how long you have had the condition, how severe the irritation, what the biomechanical problems are and how compliant you are with the physiotherapy exercises. Best case is about six weeks, but it can take up to six months for a more complicated case.