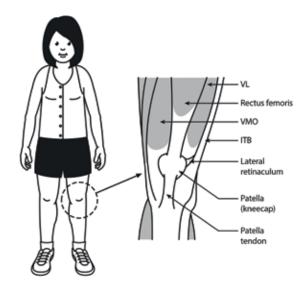


# Anterior knee pain

## What is Anterior knee pain?

Anterior knee pain is pain which occurs in the front of the knee around the knee cap. The 'patella' is the medical name for kneecap, and the 'femur' is the medical name for thighbone. This is why it is sometimes called 'Patellofemoral Pain Syndrome' or 'Patellofemoral dysfunction'. Sometimes the cartilage on the back of the kneecap softens, which is called 'chondromalacia patellae'.



# Who gets anterior knee pains?

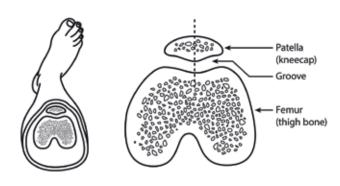
Anyone can get anterior knee pain. It is more common during the teenage years. It affects girls more than boys.

# What are the causes of anterior knee pain?

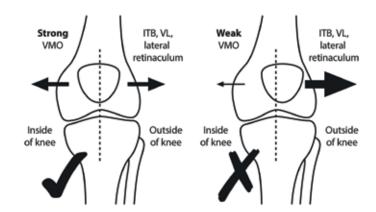
Normally the kneecap slides smoothly along a groove in the thigh bone. In some children, the knee cap rubs against the side of the groove causing irritation and pain. This can be caused by imbalances in the muscles around the knee. Some muscles that support the knee joint may be weak, while other muscles are tight and inflexible.

For example, the quadriceps muscles, at the front of the thigh, may need strengthening to hold the knee cap in the right position. Sometimes anterior knee pain can be due to problems with the shape of the bones in the legs when the child stands and walks.

#### Balanced muscles



#### Muscles not balanced



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## What are the symptoms?

Anterior knee pain usually affects both knees, although one side can be worse than the other. The pain is usually described as a dull ache which gets sharper with activity. The pain is made worse by activities that involve bending the knee. This includes walking up and down stairs, skiing, or any activity involving squatting, sitting or kneeling. Your child may also complain of stiffness, especially after long periods of sitting.

## How are anterior knee pains diagnosed?

Your child's doctor will take a careful history and examine the knee to ensure there are no other causes for your child's knee pain. Further testing or scans are rarely needed.

## How are anterior knee pains treated?

Rest and changing the types of activity your child is doing are important and may control the pain. A physiotherapist can teach your child exercises to correct the imbalance in their muscles, advise about suitable activities and guide your child's gradual return to full activity. Surgery is rarely necessary.

Doing the specific exercises given by your child's physiotherapist is important and this needs to be done regularly.

Other helpful measures may include:

- Cold or heat packs
- Simple pain relief (e.g. paracetamol)
- Short periods using anti-inflammatory drugs
- Taping or knee supports
- High heel shoes should be avoided.

## What is the outlook for my child?

Anterior knee pain improves over time. Usually the symptoms are fully relieved, or just a minor problem, by the late teens or early twenties.

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