



Patellofemoral Syndrome

With special thanks to Associate Professor Justin Roe (MBBS, FRACS) and the North Sydney Orthopaedic Research Group



Patellofemoral pain is a common knee problem. Common symptoms associated with this condition include pain under or around the knee cap, or the inside aspect of the knee. This pain is often made worse by repeated eccentric loading of the knee (by such activities as going down stairs or hills), or keeping the knee bent for prolonged periods, as in sitting in a car or movie theatre. Although it may occur at any age, teenage females are perhaps the most commonly affected.

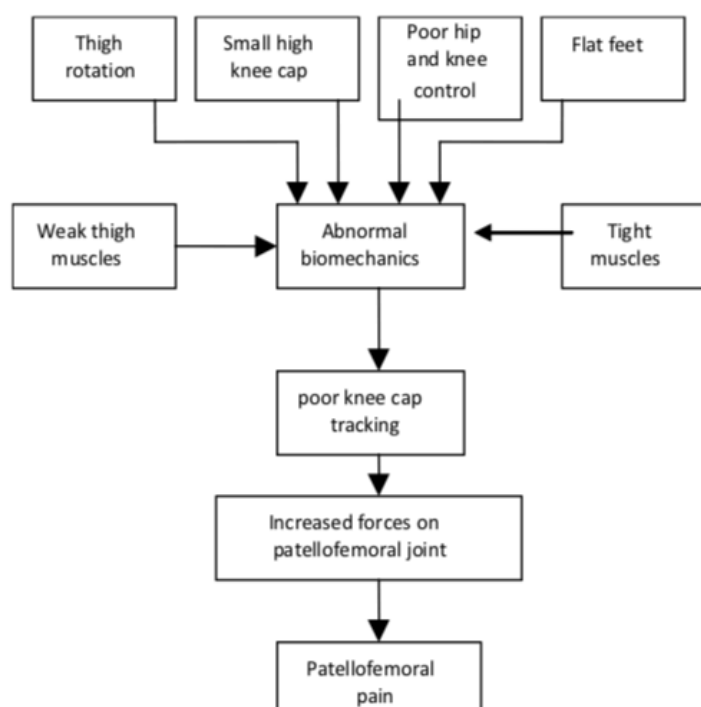
Often patients with this condition may have symptoms in both knees. Symptoms usually start gradually and may progressively worsen over time, often without any history of injury.

Occasionally this condition can also develop slowly after a history of traumatic knee injury or surgery, and persist after the initial symptoms of the injury resolve. Clicking or grinding of the knee cap is also a common complaint.

WHAT CAUSES PATELLOFEMORAL SYNDROME?

The causes of patellofemoral syndrome are often multi-factorial, but generally relate to factors that cause the knee cap to track abnormally in the groove on the thigh bone. These can include thigh muscle weakness and tightness of the structures on the outer aspect, or back of the thigh.

Figure 1 summarises the multiple factors that contribute to patellofemoral syndrome.



PATELLOFEMORAL SYNDROME FOLLOWING SURGERY OR INJURY

Patellofemoral syndrome is very common following surgery or injury. This is due to a combination of thigh muscle weakness and tightness of the muscles on the outer aspect, or back of the thigh as described above. The resulting symptoms are pain at the front or outside of the knee and difficulty with going downstairs, prolonged sitting, or when first getting out of a chair. These symptoms tend to resolve with time and the institution of specific treatment. Your physiotherapist should be familiar with a treatment plan.

TREATMENT OF PATELLOFEMORAL SYNDROME

Most cases of patellofemoral syndrome are best treated by conservative (non-surgical) measures. This will frequently involve treatment from a physiotherapist to assist you in building up the thigh muscles in the correct way, stretching the tight soft tissues and correcting other factors above and below the knee that contribute to this condition. Often your physiotherapist will show you how to tape the knee into the correct position to assist the knee cap to move in the groove on your thigh bone more efficiently.

Unfortunately this condition rarely improves overnight and you will need to be diligent with your exercises and stretches to recover fully. Often it will take a minimum of 6 weeks for your knee to get better.

Treatment that assists in reducing the inflammation or swelling of the knee may also be beneficial and help you to recover faster. This may be in the form of modalities such as ice packs or your Doctor may prescribe some anti-inflammatory medications.

The goal of treatment is to return you to your desired level of activity without pain. Over the short term you may need to refrain from sporting activities that exacerbate your knee pain until your strength and flexibility are improved with physiotherapy. As your knee feels better, you may return to normal sports.

In rare cases conservative treatment will not be sufficient to alleviate your symptoms and surgical options may be considered.