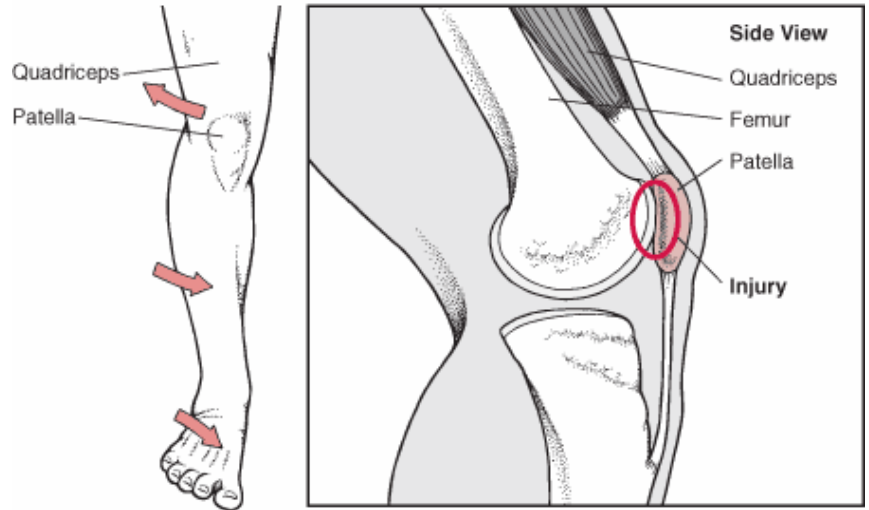


## Patellofemoral Syndrome

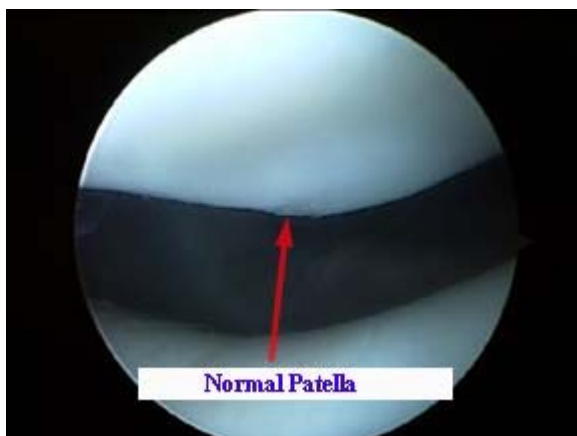
Patellofemoral pain syndrome (PFPS) is a common knee problem in which pain is felt under or around the patella (kneecap). The pain is caused by abnormal movement of the patella. As the knee extends and flexes, the patella normally moves both up and down, and tilts slightly without touching the other bones of the knee.

In people with PFPS, the patella painfully rubs against the thighbone (femur) which forms the upper part of the knee joint.

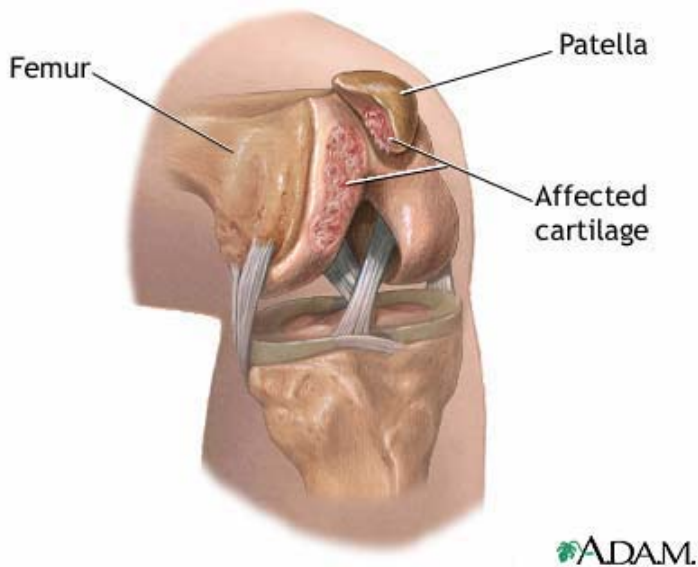


### What causes patellofemoral pain?

There is no single cause for PFPS. Rather, it can be due to a number of different factors or conditions. PFPS occurs when the patella cartilage becomes overloaded due to overuse (often caused by high-impact activities) or as a result of poor alignment. High-impact sports - such as football, basketball, soccer, tennis and running - can aggravate existing abnormal kneecap alignment. In addition, running on uneven surfaces, like hills or trails, or playing on multiple surfaces (such as going from a grass to a hard court in tennis) also may increase the likelihood of patellofemoral pain.



Chondromalacia Patellae (CMP) is another term sometimes used for patellofemoral syndrome. With CMP there are degenerative changes in the cartilage on the back of the patella. CMP specifically refers to a knee where the cartilage has been structurally damaged, while the more generic term PFPS refers to the earlier stages of the condition, where symptoms might still be reversible.



## Risk Factors

- Flat feet (over pronation)
- High arches
- Hip dysfunction
- Pronation when walking
- External rotation of the lower leg
- Knock knees
- Participation in high-impact sports, such as running.

## Usual symptoms of patellofemoral pain:

- Pain or a dull ache under or around the kneecap.
- Pain when doing the following: sitting with bent knees, squatting, jumping, climbing stairs or going downhill.
- May get buckling of the knee when the knee suddenly gives way and does not support your body weight.
- A catching, popping, or grinding sensation when walking or with knee movement is also common.

## Sport Medicine Physician

Your sport medicine physician will be able to diagnose your knee problem and determine the appropriate course of action. Most often, they will refer you to physiotherapy for treatment. They may also send you for further diagnostic investigation or refer you to an orthopedic surgeon if they think you may need surgery. They will also discuss the use of medications and injections for pain relief.

## What can Physiotherapy can do to help?

- We use mobilizations, acupuncture or electrotherapy to relieve pain.
- We use taping of the patella to help correct abnormal positioning and bracing to relieve pain.
- We give exercises to stretch tight structures, e.g. the iliotibial band(ITB),hamstrings and calf muscles
- We develop a personalized exercise program to strengthen weak muscles; usually involving the Vastus Medialis Oblique (VMO) part of the Quads.
- We prescribe orthotics if foot pronation is a contributing factor.
- We advise you on return to activity and how to maintain fitness.