

**DESCRIPTION**

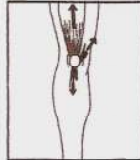
Knee-cap or patellar pain is one of the most common complaints of sports participants and may involve the patella as well as surrounding soft tissue. It is commonly known as 'jogger's knee', 'runner's knee', 'cyclist's knee'.

The pain is due to an overuse syndrome of the back of the knee cap.

The syndrome, known as patello-femoral syndrome, is aggravated with any bent knee activity, such as kneeling, squatting, sitting in a theatre (the 'theatre sign'), climbing stairs, with going down being worse.

the vastus medialis is weak from disease, injury or disuse, the outward pull from the other muscles can result in greater pressure or even the patella rubbing against the femur.

The inflammation causes pain, swelling and may lead to roughening and eventually maybe cracks in the cartilage covering of the underside of the patella.

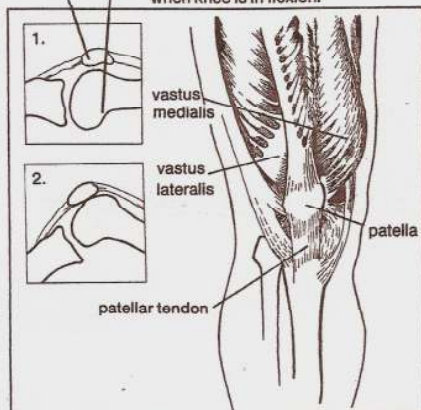


Forces acting on patella.

**ANATOMY**

The patella is a moving part that glides up and down a groove in the femur. The quadriceps muscles attach to the patella and over it to the patella tendon, the tendon which goes from the base of the patella to the tibial tubercle.

1. patella, femur. 2. patella rubbing against the femur when knee is in flexion.



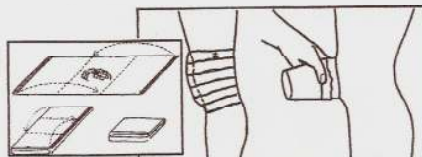
**CAUSES**

1. Muscle weakness or imbalance.
2. Knee injury.
3. Anatomy – narrow groove, wide hips, asymmetrical patella, knock knees, tibial torsion, flat feet.
4. Inflexible Achilles tendon and/or hamstrings (back of leg).



**IMMEDIATE CARE**

1. Ice pack, with leg straight, 20 minutes.
2. Ice massage, with leg straight, 20 minutes.



Above: Making an ice pack, ice pack, ice massage.

**ETIOLOGY**

The patella normally glides up and down through the groove. As the knee is bent, pressure between the patella and the groove is increased prolonging and/or repeatedly causing this increased pressure can lead to irritation, which in turn causes an inflammatory response.

This pressure is increased if the patella does not ride properly through the groove, but 'tracks', meaning it travels more to one side, making it closer to the femur. This is the case if there is a muscle imbalance between the lateral quadricep muscles, which pull the patella up and outwards, and the vastus medialis, which is the only quadricep muscle that pulls up and slightly in. If

An ice application should be done 2-3 times a day and after any activity.