

Patellofemoral pain syndrome

What is it?

Runner's knee is characterised by pain at the front of the knee, around or underneath the knee cap (patella). It can also be called more commonly Patello-femoral joint syndrome (PFJS) by most physiotherapists and Chondromalacia Patella (CMP) by many doctors.

What are the symptoms?

Runner's knee is experienced as pain around the front of the knee usually after a period of running, walking up or down stairs, jumping or squatting. There may be a sensation of grating, cracking or creaking under the knee cap. It can most often be more painful after the aggravating activity, with the knee often feeling too weak or painful to put full weight through. Swelling is also experienced occasionally.

What are the causes?

Although there are many causes and contributing factors of runner's knee, the most consistent is poor tracking of the knee cap. The knee cap is designed to slide effortlessly in a groove on the thigh bone where it joins the knee joint. When the knee cap is pulled to one side and the tracking becomes uneven it can irritate the surface of the underside of the bone. Causes of this tracking can be from poor quadriceps muscle activation, weakness of the quadriceps on the inner aspect of the thigh, tightness in the muscles and structures on the outside of the thigh, even poor muscle control and strength of the hips and feet can be contributors. Being overweight, deconditioned or unfit, or having inappropriate foot wear can all add to the overload on the joint.

What should I do?

An assessment with your physiotherapist is required to accurately identify the source, contributing factors and cause of your runner's knee. Often successful treatment of this condition requires a full biomechanical assessment of your running technique, treatment of the source, correction of biomechanical contributing factors and a training/exercise program to improve knee cap tracking by your physiotherapist.

What shouldn't I do?

Ignore the problem. If you continue to run provoking ongoing pain it can lead to the pain becoming more severe and frequent.

Could there be any long term effects?

If left unmanaged and your knee continues to become aggravated it can lead to a chronic pain state. If your knee is swelling and becoming hot during and after running then you are likely to be inflaming the knee which could lead to early arthritis/permanent damage.

Physiotherapy treatment and management

Initial management will consist of activity modification, advice regarding anti-inflammatory medications, as well as treatment of the sources with soft tissue release. Taping or bracing of the knee cap can be utilised to continue play, and correction of any biomechanical factors can be achieved by a comprehensive exercise program devised from assessment.

References:

Bruckner and Kahn (2011) Clinical Sports Medicine 3rd Ed, McGraw-Hill Professional, North Ryde NSW.