

Patellofemoral Syndrome

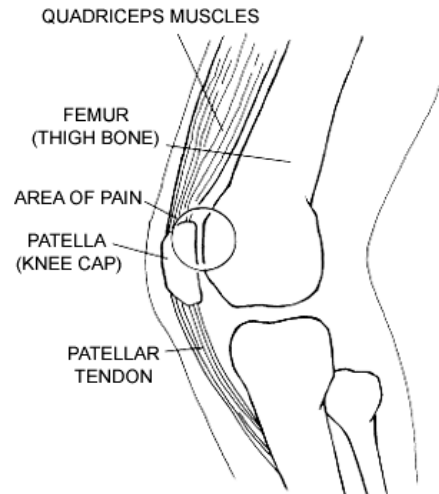


Patellofemoral Syndrome is a common complaint among sports persons.

The pain is due to irritation of the articular cartilage at the back of the knee cap.

The aggravating activities tend to be those that require the knee to flex repetitively especially in weight-bearing (e.g. long distance running, squatting, up and down stairs).

The pain is often vague and can be medial or lateral or below the knee cap. The irritation can cause swelling and occasional crepitus (clicks and clunks and grinding). Often there is a weakness in the quadriceps muscles particularly the medial (vastus medialis).



Causes

During knee flexion, different areas of the articular surface of the patella come into contact with the femur. Prolonged repeated flexion or flexing under load can cause irritation of the cartilage which in turn leads to inflammation and hence pain.

Other factors which lead to the development of patellofemoral syndrome are:

- poor foot biomechanics, e.g. excessive pronation/tibial torsion
- poor leg biomechanics, e.g.
 - femoral anteversion causing "patellar squinting"
 - knock knees
- muscle tightness, e.g. hamstrings, calves, quadriceps and iliotibial band
- muscle weakness, e.g. vastus medialis
- tightness of lateral soft tissue of patella
- poor training techniques, e.g.
 - overtraining
 - incorrect technique



Treatment

Initially the aim is to reduce inflammation

- Rest — avoid pain producing activities, e.g. squat, running
- Ice — Ice pack application for 20 minutes 2-3 x day and after activity
- Anti inflammatory medication may be required
- Appropriate stretching and strengthening exercises and postural adjustments
- Taping techniques to help patellar control may be utilised
- Advice on training techniques — including the use of warm ups and cool downs
- Referral to a podiatrist may be necessary for advice on footwear or orthotics for improvement of foot biomechanics and posture.
- Mobilising the patella

Wakefield Sports Clinic

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