

**Clinical Guideline:** Anterior Knee Pain Site: FPH

History

* Usually teenage girl or athletic young adult
* Pain over front of knee or under the knee cap
* Symptoms worse with kneeling, sitting with knee flexed for long periods (car journeys, airline fights, cinema) and climbing/ descending stairs
* Knee may give way and occasionally swells
* Pseudo-locking (knee-cap catching)
* Usually both knees affected

General Information

* Majority of cases will be helped by adjustment of stressful activities and physiotherapy combined with reassurance that most patients recover.
* Exercises are directed specifically at strengthening the medial quadriceps (VMO) and improving patellar tilt (taping).

Advice and Treatment

Refer to local physiotherapy services if self-help ineffective.

Surgery should be considered only if (1) there is a demonstrable abnormality that is correctable by operation; (2) conservative treatment has been tried for at least 6 months and (3) the patient is genuinely incapacitated.

Operation is intended to improve patellar alignment and patello-femoral congruence and to reduce patello-femoral pressure.

Referral Guidelines – red flag signs

X-ray knee (AP standing and lateral) and ask for skyline view to assess tilt

Investigation

* Look for malalignment or tilting of the patella, quadriceps wasting, fluid in the knee and tenderness under the edge of the patella.
* Patello-femoral pain is elicited by pressing the patella against the femur and asking the patient to contract the quadriceps.
* Patellar tracking can be observed asking the patient to flex and extend the knee whilst sitting on the edge of the couch.
* Hip should be examined to exclude referred pain.
* DIFFERENTIAL DIAGNOSIS:

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| Patello-femoral subluxation | * Plica syndrome |
| Osteochondritis dessicans | Patello-femoral arthritis |
| Bursitis | Patellar tendinitis |
| Osgood-Schlatter’s disease (apophysitis) | Bipartite patella |
| Bone tumours | Referred pain from hip (think of Perthes, slipped capital (upper) femoral epiphysis) |

Examination

* The basic disorder is probably mechanical overload of the patello-femoral joint.
* A single injury i.e. blow to front of the knee, may damage the articular surface and takes months to settle.
* More common is repetitive overload due to malcongruence of the patello-femoral surfaces or malalignment of the extensor mechanism or weakness of the vastus medialis that cause the patellar to tilt overloading one facet.