

FACT SHEET

PATELLOFEMORAL PAIN SYNDROME

Patellofemoral pain is one of the most **common** presentations of knee pain across all demographics. It is usually of **insidious onset**, although can also be a **secondary** problem following a direct impact, ligamentous injury or knee surgery.



As the knee flexes, the quadriceps should control the movement of the patella medially and then laterally. **Imbalance** between the forces of the Vastus Medialis Oblique (VMO) and Vastus Lateralis (VL) causes this movement to be disrupted and results in a **peripatellar synovitis**.

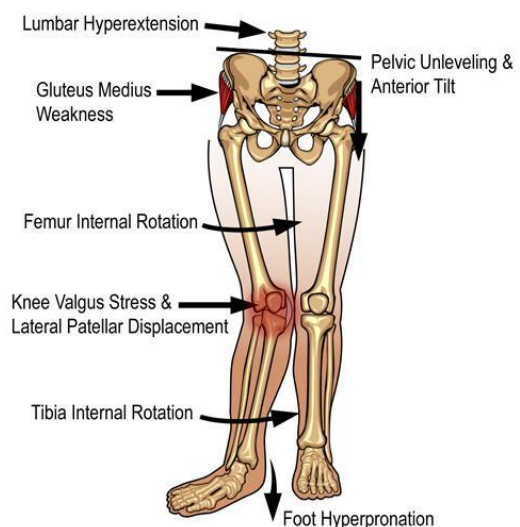
CAUSES

Multiple extrinsic and intrinsic factors can cause imbalance between the VMO and VL.

Extrinsic factors include increased training volume, footwear, running speed and hill/stair running.

Intrinsic factors include femoral internal rotation, knee valgus, tibial rotation, subtalar pronation, reduced muscle flexibility and reduced strength/control of the vasti muscles.

A **comprehensive biomechanical assessment** will identify which factors are contributing to the patient's symptoms.



SIGNS AND SYMPTOMS

- Diffuse **ache** of the anterior knee
- Aggravating activities usually include **stairs/steps, running** and sometimes prolonged sitting
- Recurrent **crepitus** or intermittent clicking of the patella
- The possibility of a **small effusion**
- **Tenderness** on palpation of the **patella borders**
- Normal range-of-motion
- Intermittent restriction on medial patella gliding



TREATMENT

Treatment should be **multimodal and individualised** to treat the specific extrinsic and intrinsic factors for each patient.

Treatment should focus first on **reducing pain and inflammation** through ice, electrotherapeutic modalities, NSAIDs, mobilisation and taping. **Activity modification** should be advised to address extrinsic factors.

Strengthening of the quadriceps with VMO retraining should be commenced as well as soft tissue techniques to **reduce muscle tightness** of the hamstrings, gastrocnemius, ITB and quadriceps.

Biomechanical insufficiencies identified during examination should also be addressed and may include hip strengthening and **orthosis fitting**.

If you should have any questions regarding this or any other similar injuries, please contact us on 9585 8392 or oatleyphysiotherapy@bigpond.com.

If you would like to go onto our electronic mailing list to periodically receive further fact sheets, please let us know.



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