

Patellofemoral Pain Assessment & Management



Claire Robertson

Claire Robertson is a specialist patellofemoral physiotherapist. She holds a Bachelors and Masters In Physiotherapy, has published extensively and lectured internationally on patellofemoral pain. In addition to her research Claire has substantial clinical experience, having worked in the NHS, private practice, and currently as a director in a specialist patellofemoral clinic.

Quick Takeaways

- Pennation angle of the VMO can vary significantly between sedentary and active individuals. Patients who present with patellofemoral pain post injury + VMO/quads wastage do much better with quads exercises than those who have an overload associated onset of pain
- The infrapatellar fat pad is extensive and often impinged in the superolateral corner by the patella. Make sure you don't miss this by just palpating directly under the patella
- Specific and acute pain location at the inferior patella pole and pain improving with activity are highly suggestive of patella tendinopathy rather than patellofemoral pain
- The architecture of the VMO is much more influential on patellofemoral pain than timing of VMO activation
- It's essential to be specific with identifying impairments to ensure correct exercise prescription. Hip adduction in SLS (**Glute med weakness**) = functional valgus at knee + lateral patella facet overload while femoral IR (**Lack of hip ER strength**) = rotation of trochlear medially resulting in a lateralized patella.



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Key Learnings

1 Correction of the patella into the trochlear groove from a patellar tilt position with quads contraction is a good prognostic indicator for quadricep strengthening rehabilitation

2 The distance between the poles of the patella and the tibial tuberosity should be equal on palpation. An increased distance between the distal pole of the patella and the tibial tuberosity indicates patella alta

3 In closed chain exercises patellofemoral load increases very slowly from 0 - 50°. After 50°, load rapidly increases. In open chain exercises patellofemoral load increases very slowly from 90° - 45° knee flexion. From 45° to full extension the load increases rapidly