Anterior knee pain

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Patellar tendon-lateral femoral condyle friction syndrome
T2 axial image through the level of the trochlea and T2 sagittal image through the lateral joint space demonstrates increased signal within the superolateral aspect of Hoffa’s fat, most compatible with edema.
Note the high-riding patella (patella alta), commonly seen in association with patellar tendon-lateral femoral condyle friction syndrome.

**Insall-Salvati ratio:**

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\frac{\text{Patellar tendon length}}{\text{Patellar pole to pole length}} = \frac{60.4\text{mm}}{34.6\text{mm}} = 1.74 \quad (\text{nl} < 1.2)
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Patellar tendon-Lateral femoral condyle friction syndrome (PT-LFCFS)

- Also known as Hoffa’s fat impingement syndrome
- Common cause of anterior knee pain, typically in active individuals
  - Anterior pain worsened by extension
  - Also point tenderness along inferior pole of patella
- Etiology likely related either to patellar maltracking or imbalance of forces between vastus medialis and lateralis muscles resulting in impingement of Hoffa’s fat between the inferior patella and lateral femoral condyle
- Lateral patellar subluxation and patella alta found in >90% of cases.
References
