

Patellar Tendinopathy (Jumper's Knee) and PRP

What the injection-comparison research shows for this common athlete's injury

Patellar tendinopathy — commonly known as jumper's knee — causes pain at the front of the knee just below the kneecap and is especially prevalent in jumping sports such as volleyball and basketball, affecting up to 45% of elite volleyball players. Because the condition is notoriously slow to resolve with rest alone, injectable treatments including PRP are frequently considered when structured exercise therapy has not fully resolved symptoms.

What the research shows

A 2025 network meta-analysis pooling 19 randomised trials compared multiple injection strategies for patellar tendinopathy. It found that leukocyte-poor PRP combined with a high-volume image-guided injection technique was significantly superior to non-injection conservative treatment, an effect seen mainly at the 6-month follow-up mark, alongside other approaches such as polidocanol and dry needling.

A separate authoritative clinical reference notes that while some systematic reviews suggest PRP is effective for patellar tendinopathy, the certainty of this evidence is limited by the number of studies that are retrospective or non-randomised; when directly compared with other active injection treatments, PRP has not consistently shown superiority, although it does appear to outperform extracorporeal shockwave therapy (ESWT) in some comparisons.

A 2024 randomised trial in athletes found that combining PRP with ESWT produced faster early pain relief than PRP alone, without additional safety concerns, suggesting combination approaches may have a role for some patients.

What this means for you

- Progressive tendon-loading exercise remains the evidence-based first-line treatment, effective in the large majority of cases when done correctly.
- PRP appears most likely to add benefit when paired with a high-volume injection technique or as an adjunct to structured rehabilitation, rather than as a stand-alone quick fix.
- Long-term (beyond 12 months) evidence for any injection approach in this condition remains limited — this is an area of ongoing research.
- Surgery is generally reserved for the minority who fail 6 months of comprehensive non-surgical care.

This article summarises published research for general information and does not replace individual medical advice. Outcomes vary between patients — talk to your treating specialist about whether PRP is appropriate for your specific condition.

References

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