

PRP vs Hyaluronic Acid for Knee Osteoarthritis: What Head-to-Head Trials Show

Comparing two of the most commonly used injectable therapies

Hyaluronic acid (HA, sometimes called viscosupplementation) has been a mainstay injectable treatment for knee osteoarthritis for over two decades, working by supplementing the joint's natural lubricating fluid. Platelet-rich plasma is a newer alternative, and a growing number of head-to-head randomised trials now let us compare the two directly rather than relying on each treatment's results against placebo alone.

What the comparative trials found

A 2025 meta-analysis pooling 15 double-blind randomised trials and 1,632 patients with grade I–III knee osteoarthritis compared PRP directly against HA. At 12 months, the PRP group showed significantly lower pain and total symptom scores on the WOMAC index than the HA group, leading the study authors to argue for reconsidering where PRP sits in the hierarchy of injectable treatments.

This finding lines up with several earlier systematic reviews that found PRP produced equal or superior outcomes to HA at 6 and 12 months, particularly for pain relief, though the size of the advantage varies between studies depending on the PRP preparation method used and the severity of arthritis treated.

It's worth noting that HA still has an established, long safety record and remains a reasonable first-line option for many patients, particularly where PRP is not available, affordable, or suited to the individual case.

What this means for you

- In direct comparison trials, PRP has generally matched or outperformed HA on pain and function at the 12-month mark.
- The advantage of PRP appears more consistent for pain relief than for the total symptom burden.
- Both treatments carry a good safety profile with low rates of significant adverse events.
- Your suitability for either treatment depends on your specific arthritis grade, prior treatment history and goals — this is a conversation to have with your treating specialist rather than a one-size-fits-all decision.

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

Platelet-Rich Plasma Is More Effective Than Hyaluronic Acid Injections for Osteoarthritis of the Knee: A Meta-analysis Based on Randomized, Double-Blinded, Controlled Clinical Trials. *J Orthop.* 2025;68:331–335.

Efficacy of Platelet-Rich Plasma Injections in Knee Osteoarthritis: A Systematic Review and Meta-Analysis (PRP vs HA, corticosteroid, placebo). 2025.

Efficacy and Safety of Intra-articular PRP Versus Corticosteroid Injections in the Treatment of Knee Osteoarthritis: A Systematic Review of Randomized Clinical Trials. 2025.