

PRP for Rotator Cuff Tears/Tendinopathy: The Evidence

Multiple meta-analyses demonstrate that PRP injections significantly improve pain and shoulder function in non-operative management. For partial-thickness tears specifically, PRP shows superior effects on shoulder function improvement and pain relief at all follow-up timepoints compared to placebo, with particularly strong benefits emerging at 8-12 weeks and beyond 24 weeks. [1] In addition, patients with greater structural tendon damage (>50% partial tears) demonstrate better outcomes than those with tendinopathy alone. [7]

When compared to corticosteroid injections, PRP demonstrates a distinct temporal pattern: corticosteroids provide more rapid initial relief but plateau without further improvement, while PRP shows slower initial response but sustained improvement through 6 months. [3-5] In addition, PRP shows lower rates of post-injection treatment failure (subsequent injections or surgical conversion) compared to corticosteroids. [4]

At 3 months, PRP produces significantly better improvements in VAS pain scores, ASES scores, and WORC scores compared to corticosteroids. [5] By 6 months, PRP-treated patients show significantly better DASH scores, overall function, and external rotation compared to corticosteroid groups. [3] Medium-term improvements in PRP-treated patients surpass the minimal clinically important difference for SANE and ASES scores, with sustained benefits documented at mean 47-month follow-up. [2]

The optimal protocol involves ultrasound-guided peritendinous injection, with some evidence supporting double centrifugation techniques and post-injection rehabilitation. [6]

References

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