

Success of PRP with rotator cuff tears

Platelet-rich plasma (PRP) therapy demonstrates significant success in treating partial-thickness rotator cuff tears, with outcomes comparable to surgical repair in select cases. Key findings from clinical studies include:

High Success Rates

- A 2023 study comparing PRP injections to arthroscopic rotator cuff repair (RCR) for high-grade partial tears reported a **96% success rate** for PRP, with only 1 failure in 25 patients^[1]^[2]^[3].
- Both PRP and RCR groups showed similar improvements in American Shoulder and Elbow Surgeons (ASES) scores at 2-year follow-up:
 - PRP: 53.2 → 95.3 (42.1% improvement)
 - Surgery: 51.9 → 96.5 (44.6% improvement)^[1]^[2].

Faster Recovery

- PRP patients returned to unrestricted activity in **3.3 months** versus **4.6 months** for surgical patients^[1]^[3].
- The shorter convalescence period with PRP was statistically significant ($p = 0.05$)^[1].

Functional and Structural Benefits

- PRP significantly reduces pain and improves function:
 - 66% pain reduction and 53% improvement in range of motion at 3 months^[4].
 - Enhanced collagen production and tendon healing observed via ultrasound^[4]^[5].
- Pilot studies noted tissue healing in **71% of patients** (5/7) receiving PRP^[6].

Advantages Over Surgery

- **Lower complication risk:** PRP had zero complications in studies, whereas surgery carried risks like adhesive capsulitis (frozen shoulder)^[1]^[3].
- **Non-invasive:** Avoids surgical morbidity and extensive downtime^[5]^[7].

Limitations and Considerations

- PRP is most effective for **partial-thickness tears** (especially intrasubstance tears <1 cm)^[1]^[5].
- Success depends on precise ultrasound-guided injection and high-concentration PRP formulations^[5].
- Full healing may require multiple injections, with optimal results emerging over 3–6 months^[4]^[7].

Conclusion

PRP is a validated non-surgical alternative for partial rotator cuff tears, offering **equivalent functional outcomes to surgery with faster recovery and fewer complications**. It is particularly advantageous for patients seeking to avoid invasive procedures^[1]^[2]^[3]^[5].



Success of platelet rich plasma with gluteus medius tears

Platelet-rich plasma (PRP) therapy demonstrates high success rates for treating gluteus medius tears, particularly for chronic, symptomatic cases unresponsive to conservative management. Key evidence from clinical studies includes:

Superiority Over Corticosteroid Injections

- PRP provides **significantly better pain relief and functional improvement** than corticosteroids at 12 weeks, with sustained benefits lasting up to 2 years^[8]^[9].
- At 2-year follow-up, PRP patients maintained a mean modified Harris Hip Score (mHHS) of 82.59 (vs. baseline 53.77), while corticosteroid patients regressed to near-baseline levels after 24 weeks^[9].
- 73% of corticosteroid-treated patients required crossover to PRP due to treatment failure within 3–6 months^[10]^[9].

Long-Term Efficacy

- Patients receiving a single ultrasound-guided intratendinous PRP injection experienced:
 - Progressive improvement in mHHS from 74.05 at 12 weeks to 82.59 at 104 weeks^[9].
 - 82% achieving clinically significant improvement (minimal clinically important difference) versus 56.7% with corticosteroids^[8].
- Benefits emerge by 12 weeks and continue to accrue for 6–12 months^[11]^[9].

Comparable Outcomes to Surgery

- In a randomized trial of 99 patients, PRP yielded **slightly better early outcomes** than surgical repair (open/endoscopic), with no complications versus a 10% surgical complication rate (e.g., infections, nerve injuries)^[12].
- PRP patients resumed unrestricted activity faster than surgical patients^[12].

Optimal Candidates and Procedure

- Best results for **chronic partial-thickness tears** (symptoms >3 months) without full-thickness rupture^{[13] [8]}.
- Requires **ultrasound-guided intratendinous injection** for precise delivery^{[13] [9]}.
- Leukocyte-rich PRP formulations show consistent positive outcomes^{[10] [9]}.

Safety Profile

- Zero complications reported across studies^{[13] [12] [9]}.
- Non-invasive alternative avoiding surgical risks like infection or prolonged rehabilitation^[12].

Conclusion

PRP is a highly effective, minimally invasive treatment for gluteus medius tears, offering **superior long-term outcomes to corticosteroids and comparable results to surgery with fewer risks**. It is particularly beneficial for chronic partial tears refractory to physical therapy or corticosteroid injections.



1. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10488403/>
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9. <https://www.grantgarciamd.com/articles/glut-med-minimus-PRP-injection.pdf>
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12. <https://bostonsportsandbiologics.com/blog/prp-vs-surgery-for-gluteal-tendinopathy-avoid-hip-surgery>
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