

REGENETEN[®] Bioinductive Implant induces tendinous tissue formation in patients with partial-thickness (PT) tears of the supraspinatus (SS) tendon

Rapid, implant-mediated induction of new tissue linked to reductions in tear size regardless of grade or location



Study overview

- A prospective, multi-center, open-label trial in 33 patients (mean age, 54.6 years) with PT tears of the SS tendon
- All patients received REGENETEN Bioinductive Implant over the bursal surface of the tendon following arthroscopic subacromial decompression without repair
- Tendon thickness and tear size were assessed by MRI preoperatively and at 3 months and 1 year following surgery
- Patient outcomes are described in a separate study summary



Key results

- At 1 year, 23 patients (70%) had a reduction in tear size of at least one grade from baseline
- Additionally, 8 patients (24%) had no visible defect at 1 year
- Tear progression only occurred in one patient, who did not follow the rehabilitation protocol
- No patients underwent revision surgery
- Significant increase in mean tendon thickness in both intermediate and high grade tears at 1 year ($p < 0.01$) (Figure)
- No significant differences in tendon thickness between:
 - Intermediate and high-grade tears
 - Articular surface and bursal-sided defects

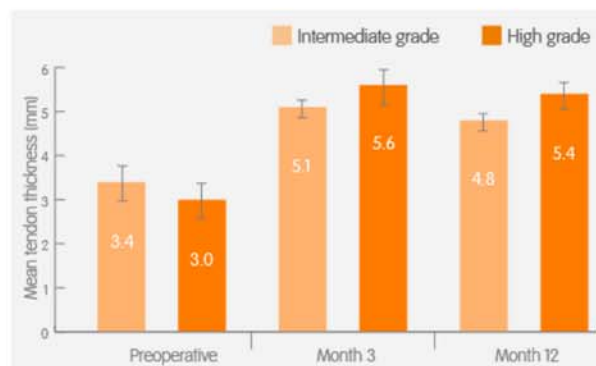


Figure. Mean change in tendon thickness (\pm standard error) across intermediate and high grade tears. At month 12, $p = 0.003$ and $p < 0.0001$ for intermediate and high-grade tears respectively, versus preoperative measures



Conclusion

The REGENETEN Bioinductive Implant biologically augments healing, increasing tendon thickness and potentially improving the biomechanical environment of the lesion. Therefore, REGENETEN Bioinductive Implant represents a promising treatment for patients with intermediate and high-grade PT tears of the SS tendon.



Study citation

*Schlegel TF, Abrams JS, Bushnell BD, Logan Brock J, Ho CP. Radiologic and clinical evaluation of a bioabsorbable collagen implant to treat partial thickness tears: a prospective multicenter study. *J Shoulder Elbow Surg* 2017;27(2):242-251. Available at: [Journal of Shoulder and Elbow Surgery](#)