

Clinical Summary

Arthroscopic Rotator Cuff Repair Technique Using a Bio-Composite Scaffold for Tissue Augmentation

Authors: Quincy T. Cheesman, DO, Patrick F. Szukics, DO, Michael Stark, DO, Sterling C. Kramer, DO, Sean McMillan, DO

Journal: Arthroscopy Techniques



Aim:

To introduce an arthroscopic rotator cuff repair technique using the BioBrace® scaffold, which provides both biologic and mechanical support for challenging cases like revisions and large tears.

Indications & Patient Selection

- **Indications:**
 - » Revision full-thickness rotator cuff repair.
 - » Large (>3 cm) or massive (>5 cm) rotator cuff tears.
 - » Chronic tears with Goutallier grade 3 or 4 fatty infiltration.
 - » Patients with comorbidities (e.g., smoking, diabetes).

Surgical Technique Overview

- **Implant:** BioBrace® (23x30mm)
- **Preparation:**
 - » BioBrace® can be trimmed and hydrated with autologous blood, PRP, BMAC on the back table
- **Repair:**
 - » Double-row repair suture bridge repair using double loaded medial row anchors. 1 set of suture is crisscrossed and bridged to lateral row
 - » BioBrace® is shuttled arthroscopically and secured to second set of medial row sutures
 - » BioBrace® is secured laterally to a third row using 2.9-mm knotless anchors for fixation

Key Takeaways

- BioBrace® offers a fully resorbable scaffold that supports both early mechanical stability and long-term biologic healing.
- Augmentation is particularly suited for revision cases and large/massive tears with poor tissue quality.

Cheesman, Q. T., Szukics, P. F., Stark, M., Kramer, S. C., & McMillan, S. (2022). Arthroscopic Rotator Cuff Repair Technique Using a Bio-Composite Scaffold for Tissue Augmentation. *Arthroscopy Techniques*, 11(4). <https://doi.org/10.1016/j.eats.2021.12.001>