

### Clinical experience case series: early mobility following rotator cuff repair (RCR) with the TENDON SEAM Construct

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Frix, J. Early clinical outcomes following rotator cuff repair with the tendon-to-bone seam technique: A novel knotless construct enabling early mobilization. 2025 Orthopaedic Summit Evolving Technologies<sup>1</sup>

#### Overview

- Biomechanical analysis has demonstrated that the unique, continuous-stitch TENDON SEAM Construct resulted in higher repair strength and less gap formation than reported for transosseous-equivalent (TOE) repair<sup>2,3</sup>
- To assess the ability of the TENDON SEAM Construct to facilitate early mobility, the implementation of a progressive rehabilitation protocol into clinical practice was evaluated<sup>1</sup>

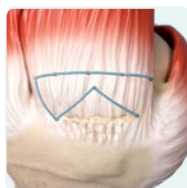


Image. The TENDON SEAM Construct

#### Methodology

**130**  
consecutive patients  
underwent primary  
RCR with the  
TENDON SEAM  
construct

Patients were  
able to wean  
from the sling  
as tolerated  
'progressive  
rehabilitation'

- All surgeries performed by Patrick M. Connor, MD between Jun 2023 - Oct 2024
- Age: average 59 (range 32–78)
- Large/massive tears: 49%
- 100% follow-up: range 4–17 months

Progressive rehabilitation: patients were permitted to engage in active-assisted/active range of motion as tolerated, but cautioned to avoid quick, uncontrolled movements or activities

#### Results



**92% of patients**

(n=119)  
were able to follow a  
progressive rehabilitation  
protocol



**2.5 weeks**

median sling usage



**98% of patients**

(n=127)  
had minimal or no  
shoulder pain at last  
follow-up



**Over 95%**

clinical success rate with  
TENDON SEAM Construct  
repair:

- Overall 4.6% of patients had recurrent or persistent tears
- 2.3% of patients had re-operations\*

#### Conclusion

Rotator cuff repair using the TENDON SEAM Construct facilitated a progressive rehabilitation protocol in more than 90% of patients. Reducing sling use from the reported, conservative rehabilitation protocols often maintaining sling use for about six weeks,<sup>4</sup> to 2.5 weeks with high clinical success rates.



Scan or click to  
learn more about the  
TENDON SEAM Construct

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\*1 arthroscopic capsular release (cuff intact), 1 revision cuff repair, 1 revision arthroplasty for traumatic cuff avulsion.

**Abbreviations:** RCR = rotator cuff repair; TOE = transosseous-equivalent repair.

**References:** 1. Frix, J. Early clinical outcomes following rotator cuff repair with the tendon-to-bone seam technique: A novel knotless construct enabling early mobilization, 2025 Orthopaedic Summit Evolving Technologies. 2. Integrity Orthopaedics 2025. Data on File. Testing Report: DN-00664. 3. Frix JT, Serbin R, Harris HW, Labbe MR, Connor PM, *Arthrosc Tech.* 2026;15(8):e70093. 4. Millett PJ, Wilcox RB III, O'Holleran JD, Warner JJP. Rehabilitation of the rotator cuff: an evaluation-based approach. *J Am Acad Orthop Surg.* 2006;14(11):599–609.

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