

# EVIDENCE MATTERS

## RESEARCH BULLETIN

### Stryker® ICONIX™ All-Suture Anchors Can Increase the Amount of Tendon-to-Bone Contact in Rotator Cuff Repair

#### TOP-LEVEL SUMMARY

With the understanding that a larger contact area between tendon and bleeding bone may enhance tendon healing potential, surgeons are evaluating various techniques of rotator cuff repair in an attempt to maximize the size of the contact area between tendon and bone.<sup>1</sup> This analysis demonstrates that **using the ICONIX all-suture anchor for the medial row can significantly increase the amount of tendon-to-bone contact in Rotator Cuff Repair.**

#### METHODS

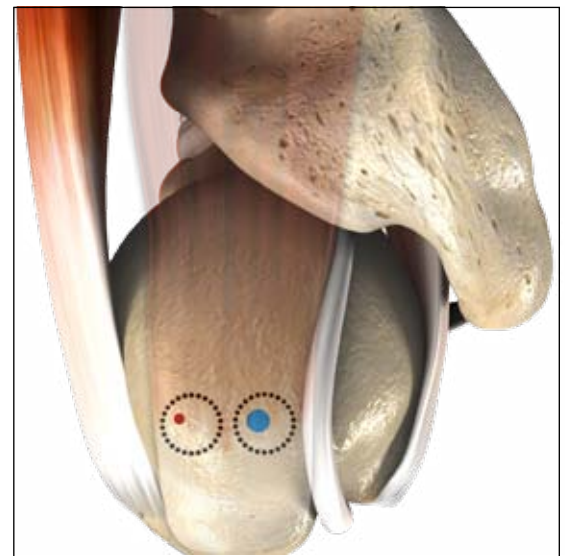
The area of two medial row anchors of various diameters was calculated. According to Curtis<sup>2</sup>, the average insertional footprint of the supraspinatus is 368 mm<sup>2</sup>. The percentage of this footprint taken up by two medial row anchors of various diameters was calculated.

#### RESULTS

Diameter (mm)	Anchor	Area of two Medial Anchors (mm <sup>2</sup> )	Percent of superspinatus footprint taken up by two medial anchors
5.5	Arthrex Corkscrew	47.49	12.9%
5.0	S&N Twinfix	39.25	10.7%
4.5	Mitek Healix; Arthrex Corkscrew	31.79	8.6%
2.3	Stryker ICONIX 2	8.31	2.3%
1.4	Stryker ICONIX 1	3.07	0.8%

#### CLINICAL RELEVANCE

Using ICONIX all suture anchors as medial row anchors in rotator cuff repair can be an effective tool to help maximize the amount of contact area available for tendon-to-bone healing.



The area taken up by a 5.5mm anchor (black dotted circles) is more than 15X larger than an ICONIX 1 anchor (red circle) and more than 5X larger than an ICONIX 2 anchor (blue circle).



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**Reference**

1. Burkhart et al. "Optimizing Pressurized Contact Area in Rotator Cuff Repair: The Diamondback Repair" *Arthroscopy* 28(2) 188-195, 2012.
2. Curtis et al. "The Insertional Footprint of the Rotator Cuff: An Anatomic Study" *Arthroscopy* 22(6) 603-609, 2006.

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