

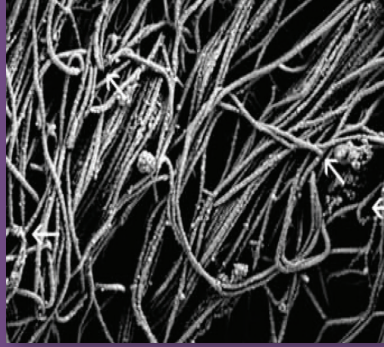
The Rotium™ Bioresorbable Scaffold Wick for Rotator Cuff Repair

ANIMAL STUDIES

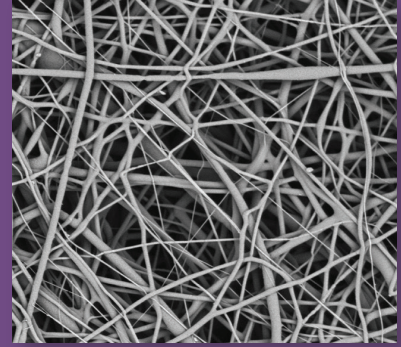


ROTIUM™ SEM IMAGES

Fibers act as a scaffold that support cellular ingrowth and proliferation. The Rotium™ Wick supports and encourages the regeneration of healthy tendon and Sharpey fibers.



SEM image of native tendon ECM

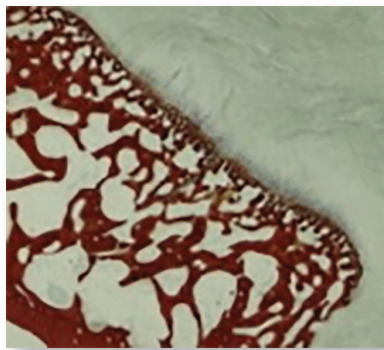


SEM image of Rotium™ Wick

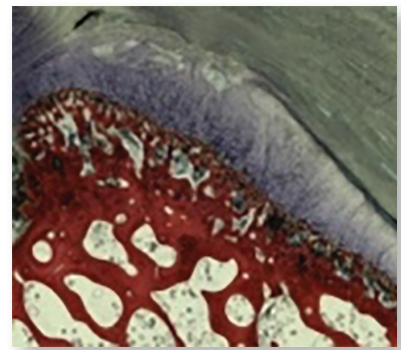
ROTIUM™ ACTUE REPAIR

12-Week Histology

Collagen fibers, similar to Sharpey, extend through calcified fibrocartilage and attach to remnant scaffold, humeral head.



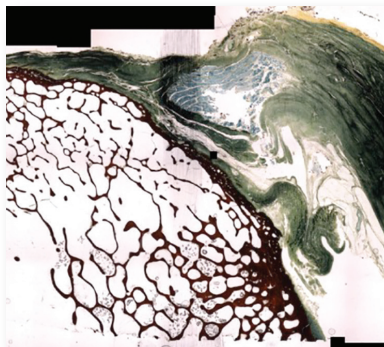
Control anchor only rotator cuff repair



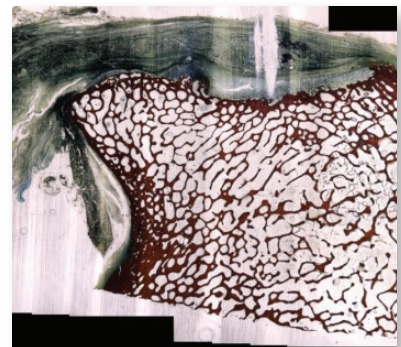
Rotium™ Wick rotator cuff repair

ROTIUM™ CHRONIC REPAIR

12-Week Histology



Sharp transection with anchor only repair



Sharp transection with Rotium™ Wick repair

Mechanical Data

ROTIUM™ ACUTE REPAIR MODEL: Ultimate Strength at Failure Data

Acute Repair Sheep Model at Colorado State University

CONTROL:

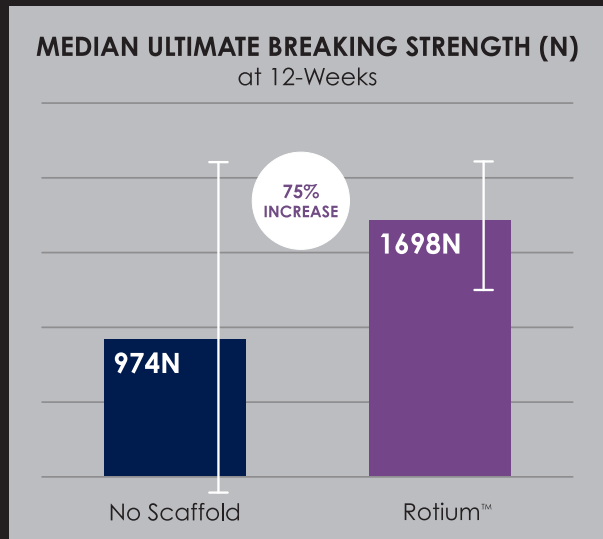
Repaired with four Arthrex 4.75 Swivel Lock suture anchors in a Speed Bridge configuration

EXPERIMENTAL GROUP:

Control repair method, plus the Rotium™ as an inlay between the bone and tendon

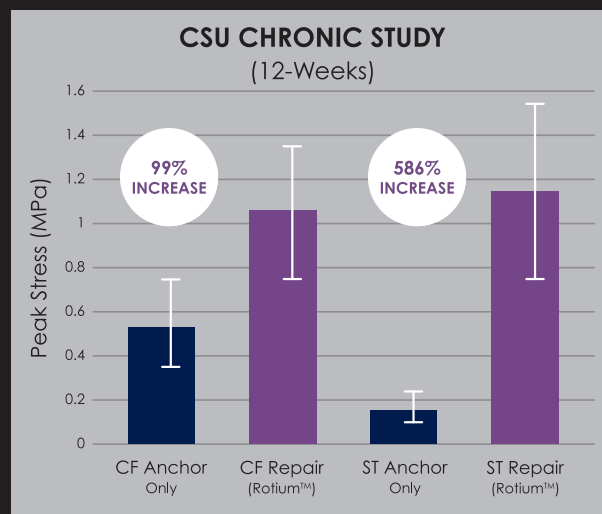
RESULTS:

At 12 weeks, the tendon/bone was tested to determine the ultimate strength at failure. The Rotium™ Wick provided **increased strength** with more **consistent results**



ROTIUM™ CHRONIC REPAIR MODEL: Peak Stress at 8% Strain Data

Chronic Repair Sheep Model at Colorado State University



Two different methods of chronic injury:

- combed fenestration (CF)
- sharp transection (ST)

CONTROL:

Repaired with four Arthrex 4.75 Swivel Lock suture anchors in a Speed Bridge configuration

EXPERIMENTAL GROUP:

Control repair method, plus the Rotium™ as an inlay between the bone and tendon. Tested to determine peak stress at 8% strain

References

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