BioCharge®

Autobiologic Matrix

A SOLUTION TO A WEAK LINK IN ROTATOR CUFF HEALING



ATREON ORTHOPEDICS

WHERE INNOVATION MEETS HEALING™

BioCharge®
Autobiologic Matrix

BioCharge® is a bioresorbable matrix designed to address the healing environment on the bursal side of the rotator cuff, while improving tissue quality and deterring suture cut-through. With an integrated delivery system, there is no secondary fixation, reducing implantation time and eliminating the risk of further tendon damage.

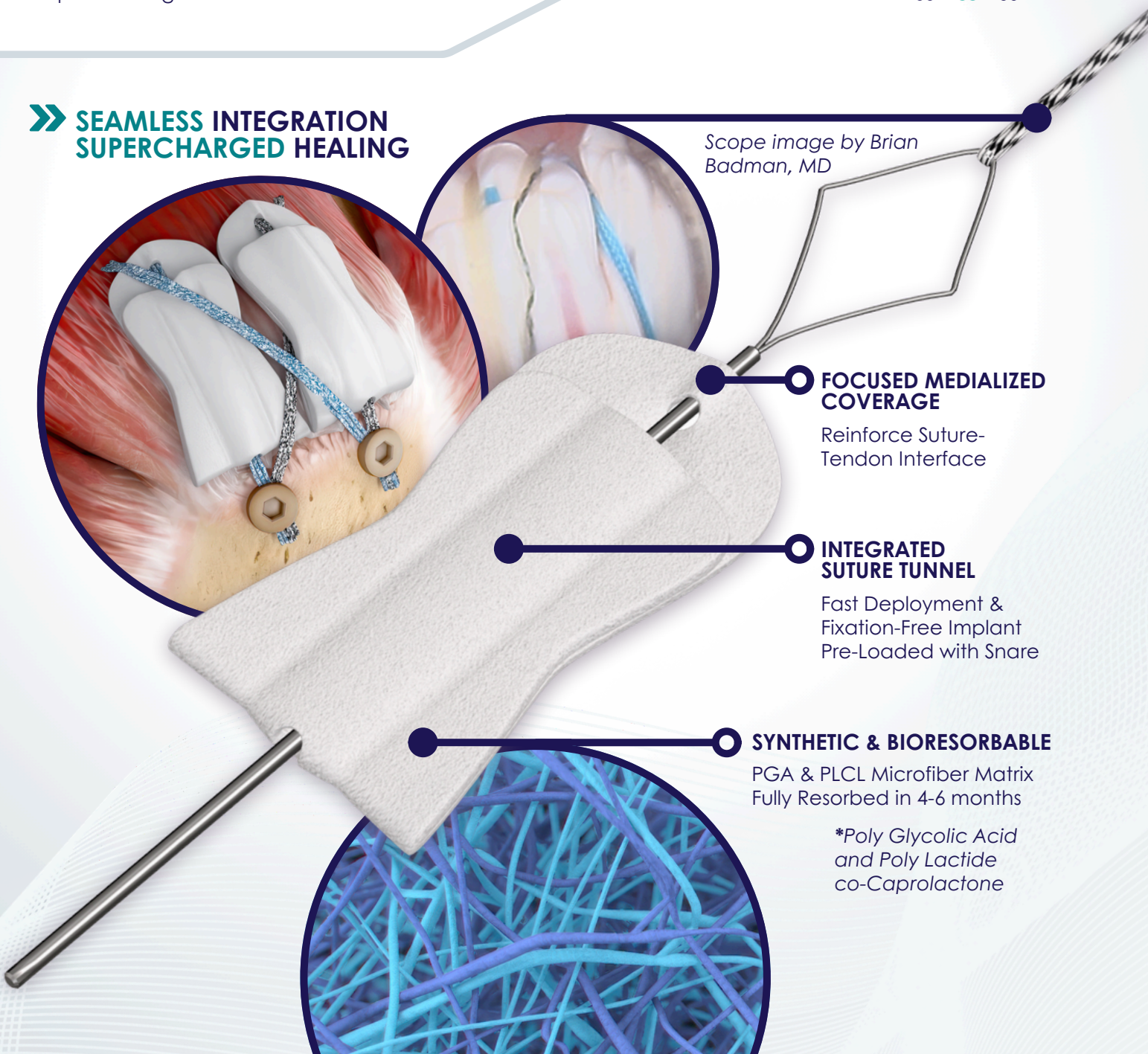
A SOLUTION TO A WEAK LINK IN ROTATOR CUFF HEALING

The inability of the tendon-suture interface to heal properly is recognized as an area of concern following rotator cuff repair (RCR) failure, whereby sutures may tear through weakened tendon tissue at points of high stress.

AVERAGE ROTATOR CUFF RETEAR RATE IN LITERATURE

35%

SEAMLESS INTEGRATION SUPERCHARGED HEALING



Scope image by Brian Badman, MD

FOCUSED MEDIALIZED COVERAGE

Reinforce Suture-Tendon Interface

INTEGRATED SUTURE TUNNEL

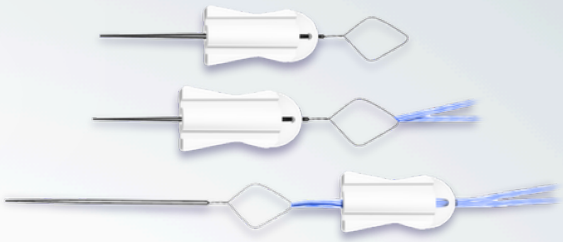
Fast Deployment & Fixation-Free Implant Pre-Loaded with Snare

SYNTHETIC & BIORESORBABLE

PGA & PLCL Microfiber Matrix
Fully Resorbed in 4-6 months

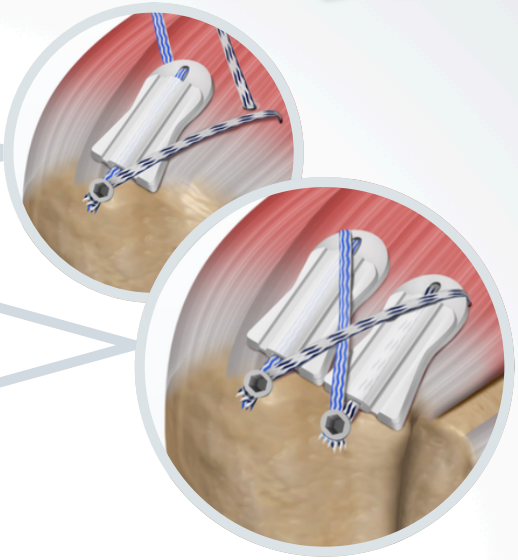
**Poly Glycolic Acid and Poly Lactide co-Caprolactone*

EFFICIENT TECHNIQUE STEPS



» 1 Using sutures from medial row anchor, load suture through snare and pull through **BioCharge®** tunnel.

» 2 Shuttle **BioCharge®** down cannula, retrieve additional sutures, and place lateral anchor.



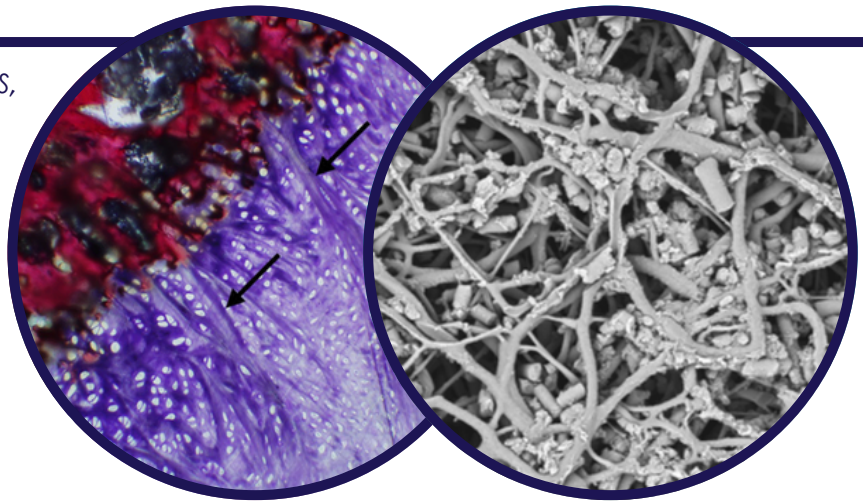
» 3 Retrieve suture for 2nd **BioCharge®** and repeat steps 2-3 for 2nd lateral row anchor.

DATA DRIVEN TECHNOLOGY

MIMICS NATIVE ECM

Promotes Healing Through Cellular Proliferation and Integration.

Sheep CSU Study (JSES, 2022), Winner of the 2023 Neviaser Award for Basic Science by ASES & JSES : Development of Sharpey's like fibers at the tendon-bone interface using an interpositional nanofiber scaffold.



*Proliferation of human tenocytes into **ROTIUM®** scaffold after 4 weeks (Data on file)*

CONFIDENCE IN SYNTHETICS

BioCharge® supercharges healing at the suture-tendon interface by promoting cellular interactions to drive healing. Degradative polymer contributions:

GLYCOLIC ACID[6,7,9]

- Anti-Inflammatory properties
- Increases fibroblast proliferation & production of collagen & HA

LACTIC ACID[5,8,10]

- Modulates inflammation & accelerates cellular migration
- Promotes ECM deposition & reparative angiogenesis

CAPROIC ACID[7]

- Anti-microbial properties
- Anti-inflammatory properties

SIMPLIFIED IMPLANTATION

EFFICIENT
Snared suture loading through integrated tunnel

SMART ECONOMICS
No additional fixation or disposables

ADAPTABLE
For tears of any size and anchor-agnostic

SAFE & BIOCOMPATIBLE
No human or animal sourced materials

> “Easy to use and the only company [Atreon Orthopedics] providing biology now to both sides of the tendon.”
>
> **Brian Badman, MD**

> “Simple to use and all the benefits of augmentation for tendon injuries.”
>
> **Shariff K. Bishai, D.O.**

PRODUCT INFORMATION

BioCharge® is intended to be used in conjunction with suture anchors for the reattachment of tendon to bone in rotator cuff repairs (Reference: FDA 510k Clearance K241912)

BIOCHARGE®
AUTOBIOLOGIC MATRIX IMPLANT

2cm x 1.2 cm, 1.7mm thickness

ROTIUM®
BIORESORBABLE WICK IMPLANT

2cm x 2cm, 4cm x 3cm, 0.85mm thickness

CONTACT YOUR ATREON REPRESENTATIVE FOR MORE INFORMATION

www.atreonortho.com/Contact-Us/

PART #	DESCRIPTION	QTY	UNIT OF MEASURE
BC-2012	**BioCharge®** Autobiologic Matrix Implant Single Pack (2cm x 1.2cm)	1	Each
FG-0007	**ROTIUM®** Bioresorbable Wick Implant (2cm x 2cm)	1	Each
FG-0043	**ROTIUM®** Bioresorbable Wick Implant (4cm x 3cm)	1	Each

ATREON ORTHOPEDICS

Legal Manufacturer: Nanofiber Solutions
Distributed by: Atreon Orthopedics 5164 Blazer Pkwy. Dublin, OH 43017 USA
614-429-1471 | www.atreonortho.com

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◊ All claims supported by data on file § References available upon request

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View U.S. patent information at https://nanofibersolutions.com/technology/