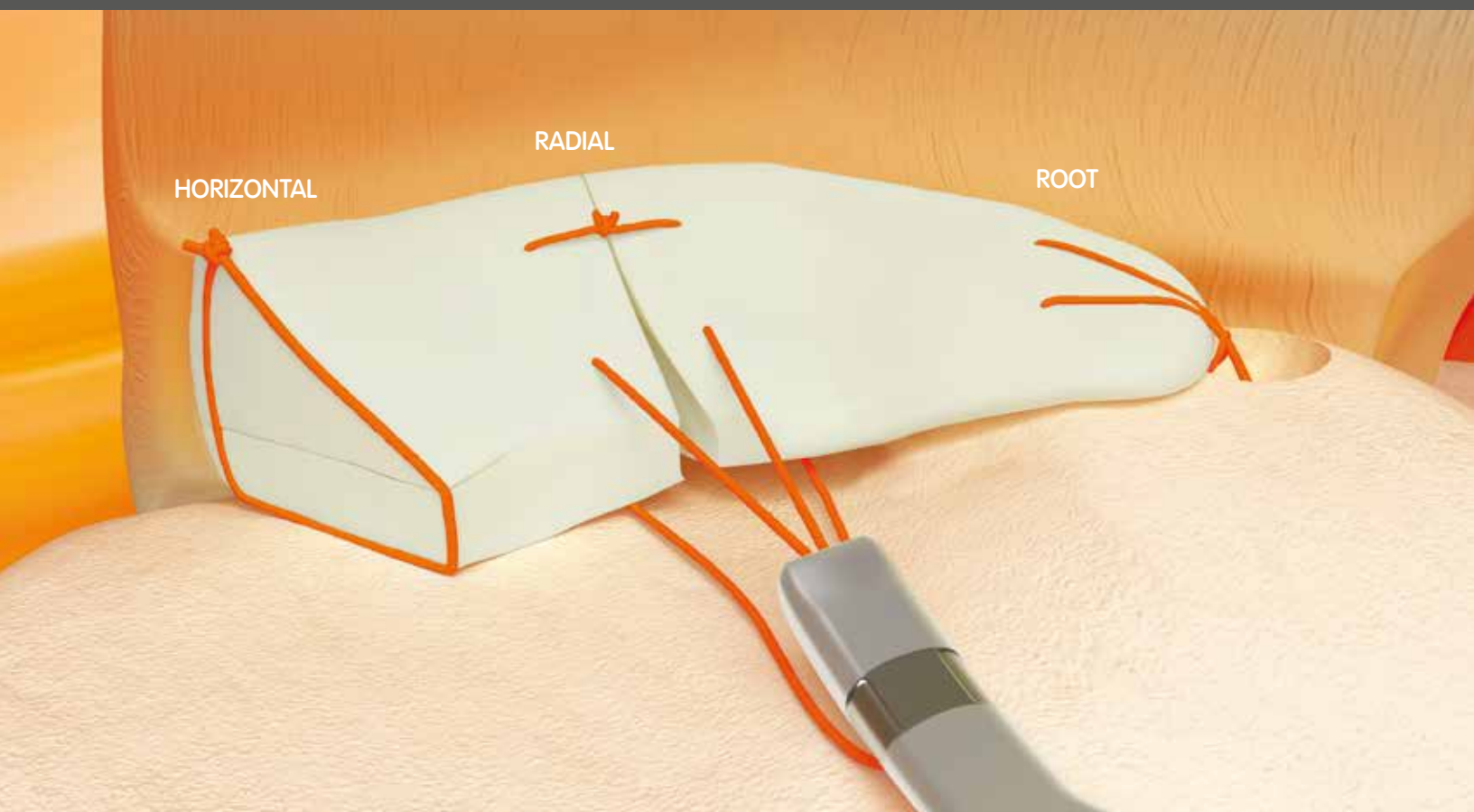


Clinical Background



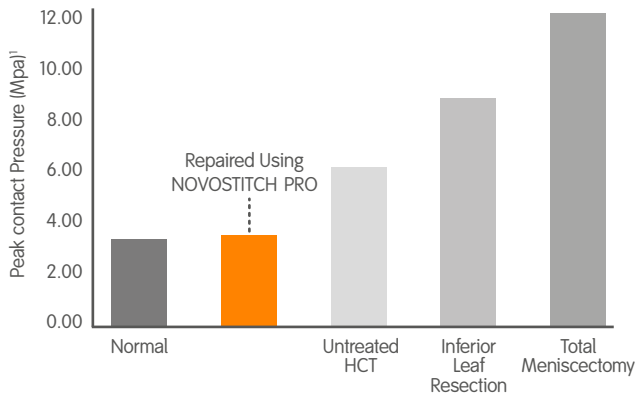
For clinical videos visit smith-nephew.com/education

Horizontal Cleavage Tears (HCT)

Contact Pressures Increased by HCT

- Based on *in vitro* data, pressure from untreated tear increases contact pressures by 70%¹
- Studies have shown unfavorable results in leaflet resection improving contact pressures¹
- HCT repair normalizes contact pressures¹

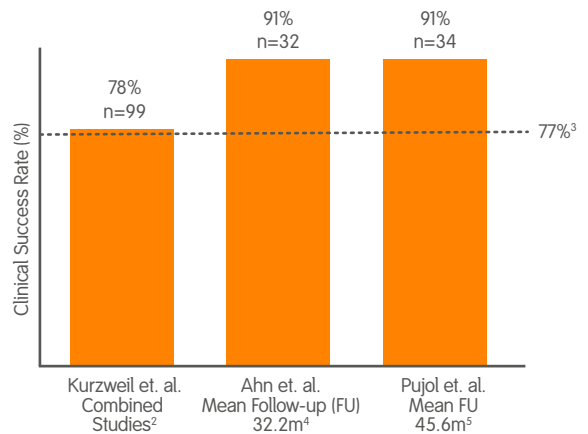
Contact Pressures of HCT Tears¹



Successful HCT Repair is Possible

- 78% clinical success rate of HCT repair upon systematic review², similar to other tear types³
- 91% success rate in broad age range of patients (14-56) confirmed with 2nd look follow up⁴
- 91% success rate with MRI follow up⁵

Success of HCT Repair



Note: Clinical success rates were calculated for different techniques including: inside-out (IO), IO with bioabsorbable and Biofix arrow anchors and open procedures. MRI follow-up success rate based on independent surgeon interpretations.



Circumferential Stitches Enable HCT Repair

- Technique articles from leading centers highlight NOVOSTITCH Meniscal Repair System proprietary Circumferential Compression Stitches (CCS) to repair HCTs^{6,7,8}
- Use of CCS eliminates posterior incision and minimizes risk of neurovascular injury⁶

NOVOSTITCH PRO Meniscal Repair System Designed for HCT Repair

- Low profile (1.6mm) and retractable lower jaw facilitate access to peripheral meniscus⁹
- Curved upper jaw and retractable lower jaw enhance maneuverability for HCT repair vs. other repair methods⁹

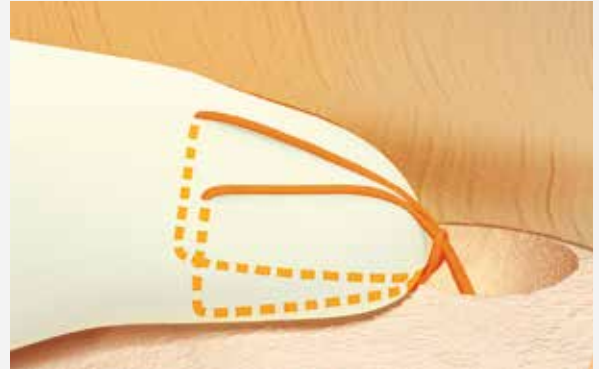
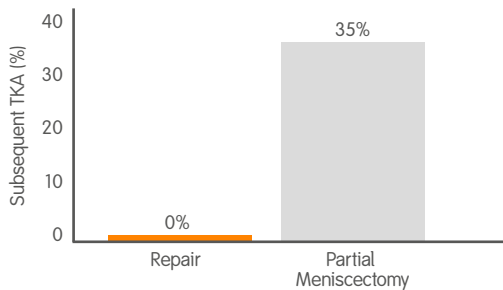


Root Tears

Meniscectomy for Root Tears Increases Osteoarthritis (OA)

- 35% of meniscectomy patients in root tear study advanced to total knee arthroplasty (TKA) within 5 years¹⁰
- Meniscectomy to treat meniscal root avulsions leads to significant joint space narrowing within 5 years¹¹

TKA after Root Tear Treatment¹⁰



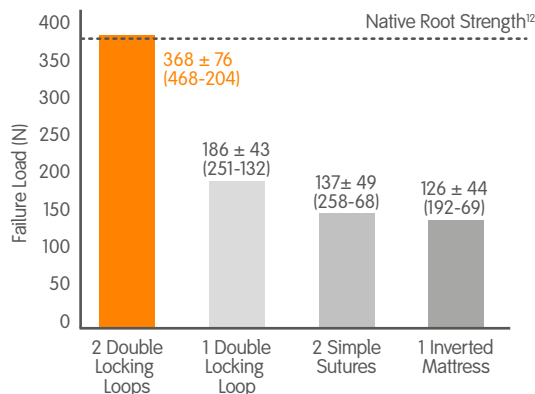
Successful Root Repair Possible

- 0% of root repair patients advanced to TKA within 5 years, compared to 35% for meniscectomy¹⁰
- Root repair patients had greater function, less pain, and greater joint space compared to patients who received meniscectomy¹¹

Stitch Construct Impacts Root Repair Strength

- Most often root repairs fail due to suture pulling through tissue¹²
- One stitch with cross-fiber purchase and multiple points of fixation is stronger than two stitches without^{12,13}
- Placing stitches 5-7mm from the edge of the meniscus generates stitches that are 38-78% stronger¹⁴

Root – Load to Failure¹³



Note: Study data based on ex vivo analysis with cadaveric knees



NOVOSTITCH PRO Meniscal Repair System Enables Strong Root Construct

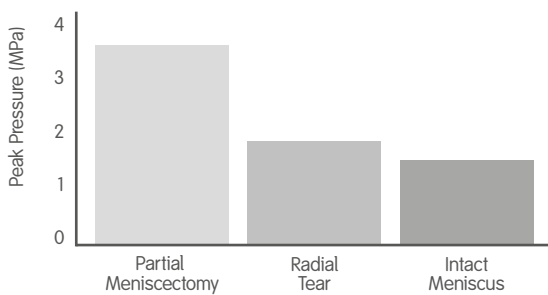
- Cartridges with size 0 suture enable stitches with two points of fixation to create a double modified locking loop without removing the device from the joint
- Curved upper jaw and retractable lower jaw enhance maneuverability for root repair

Radial Tears

Meniscectomy of Radial Tears Increases Contact Pressure

- Radial tears increase contact pressures within the knee¹⁵, and full-thickness radial tears render the meniscus nonfunctional¹⁶
- Meniscectomy of radial tears increases contact pressures by more than 100% over baseline¹⁵

Contact Pressures of Radial Tears¹⁵

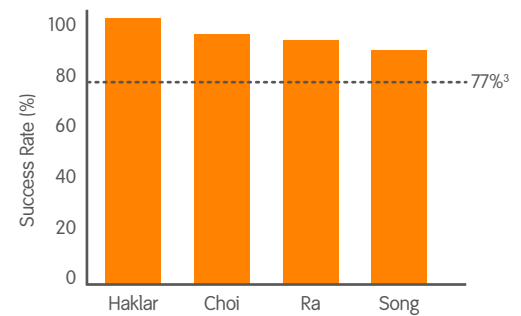


Note: Study data acquired from cadaver knees.

Robust Radial Repairs Possible

- 71-100% radial repair clinical success rates upon systematic review¹⁷ of follow-up results from included studies, similar to other tear patterns³
- Outcomes of full-thickness radial repairs comparable to bucket handle repairs¹⁶

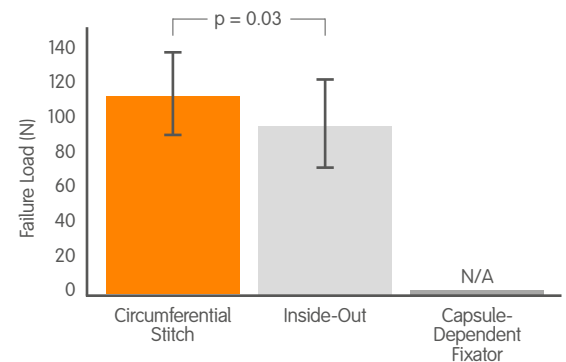
Success of Radial Repairs¹⁷



Strong Radial Repair with Circumferential Compression

- Based on *in vitro* data, Circumferential Compression Stitches (CCS) stronger than inside-out for radial repairs¹⁸
- CCSs have less gap formation than inside-out repair for radial tears¹⁸
- The CCS improves repair vectors for radial repairs by creating a stitch straight across the radial tear

Radial – Load to Failure¹⁸



Inside-Out Repair



Circumferential Compression Stitch

NOVOSTITCH PRO Meniscal Repair System Designed for Radial Repair

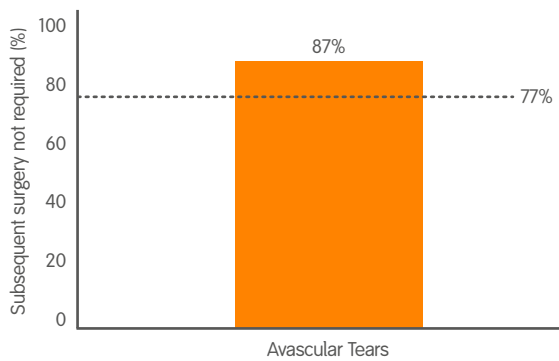
- Low profile (1.6mm) and retractable lower jaw facilitate access to peripheral meniscus⁹
- Curved upper jaw and retractable lower jaw enhance maneuverability for radial repair vs. other repair methods⁹
- Cartridges enable placement of complete stitches without removing the device from the joint

Avascular Tears

Repair of Avascular Tears Possible

- 87% of repaired tears extending into avascular zone were asymptomatic upon follow-up¹⁹
- Patients in the Noyes study were all 40+ years of age¹⁹

Outcomes in Avascular Tears¹⁹

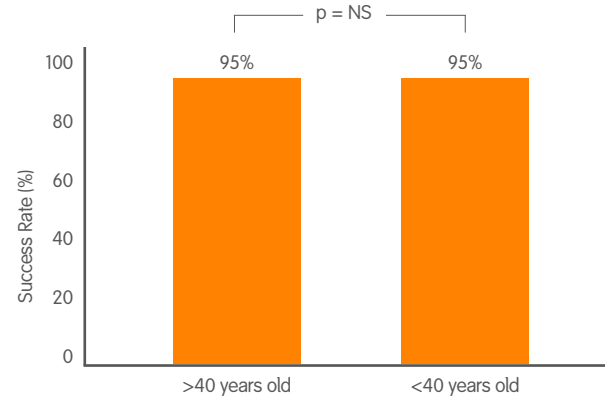


Older Patients

Age Doesn't Matter

- Two systematic reviews found no difference in repair success between patients over and under 40 years of age^{20,21}
- Case review showed no difference in repair success in patients over and under 40 years of age²²
- Steadman also demonstrated a 94.7% success rate of repair in patients over 40²²

Repair Success Rates by Age²²

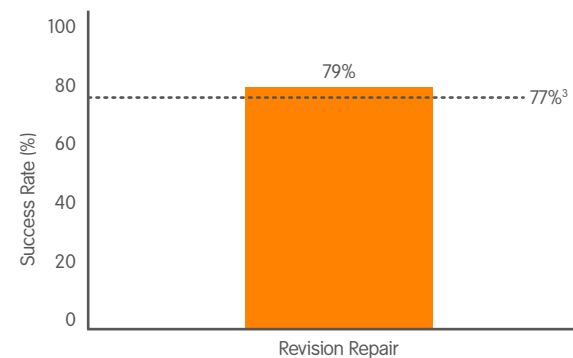


Revision Repairs

Successful Revision Repair Possible

- 79% of revision meniscus repairs were pain-free at a mean of 6 years follow-up²³
- Failure of repair still resulted in more tissue preservation and less tissue removal during secondary meniscectomy procedures^{23,24}

Repair Success in Revision Surgery²³



Ordering information

Reference #	Description
CTX-A003	NOVOSTITCH® PRO Meniscal Repair System (2-0)
CTX-A004	NOVOSTITCH PRO Meniscal Repair System (0)
CTX-R001	NOVOSTITCH Cartridge (2-0)
CTX-R002	NOVOSTITCH Cartridge (0)
CTX-C001	NOVOCUT Suture Manager

Refer to the Instructions for Use for device-specific indications, adverse effects, warnings and precautions.

NOVOSTITCH PRO Meniscal Repair System is 510(k) cleared and available in US only

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The NOVOSTITCH PRO
Meniscal Repair System is manufactured
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Supporting healthcare professionals for over 150 years

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