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— ORTHOPEDICS —

Labral Repair

ICONN Square 2.5MM PEEK Suture Anchor
Knotted Technique

Surgical Protocol by
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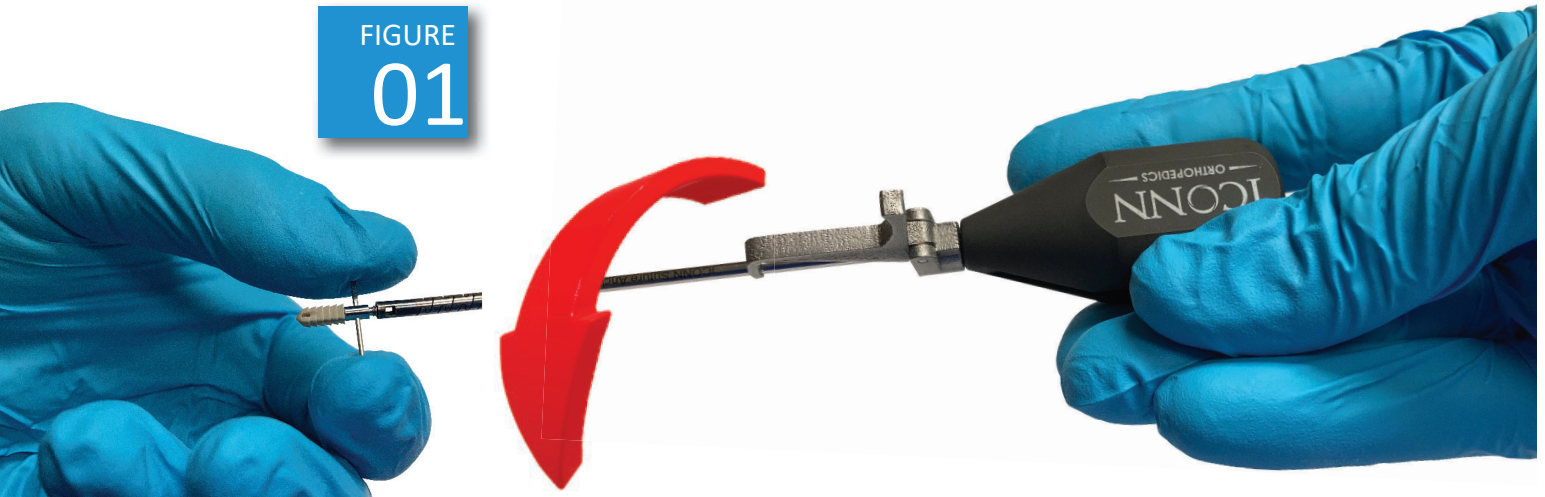
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STEP 1 - SUTURE/ANCHOR/DRIVER ASSEMBLY

FIGURE
01



Anchor/Driver Attachment

Remove ICONN Square 2.5MM Suture Anchor (125000) from sterile packaging and thread onto ICONN Square Suture Anchor Driver (225001 or 225001R). Hold removable cross pin in left hand and rotate driver handle counter-clockwise with right hand until metal tip (piece attached to anchor) is flush with the end of the driver. Note: the thread is a left handed thread, which requires rotation in the opposite (counter-clockwise) direction to tighten.

FIGURE
02



FIGURE
03



Cross Pin Removal

Verify the tip and driver are flush, then remove cross pin and place to the side for later use to remove the tip after anchor insertion. Note: the cross pin is flared on one end, which allows for removal in only one direction. Tip: push non-flared end of cross pin against table for easier removal. After removing cross pin, place driver with attached anchor to the side. Load additional anchors as necessary.

STEP 1 - SUTURE/ANCHOR/DRIVER ASSEMBLY

FIGURE
04



Suture/Anchor Attachment

Insert 1 or 2 ICONN HS Fiber #2 Suture(s) (HSe-XX-NN) or 1 ICONN TetherTape™ (HSXXX) into the proximal suture eyelet (closest to the driver shaft). Pull suture(s)/tape through to mid-point of suture(s)/tape.

FIGURE
05

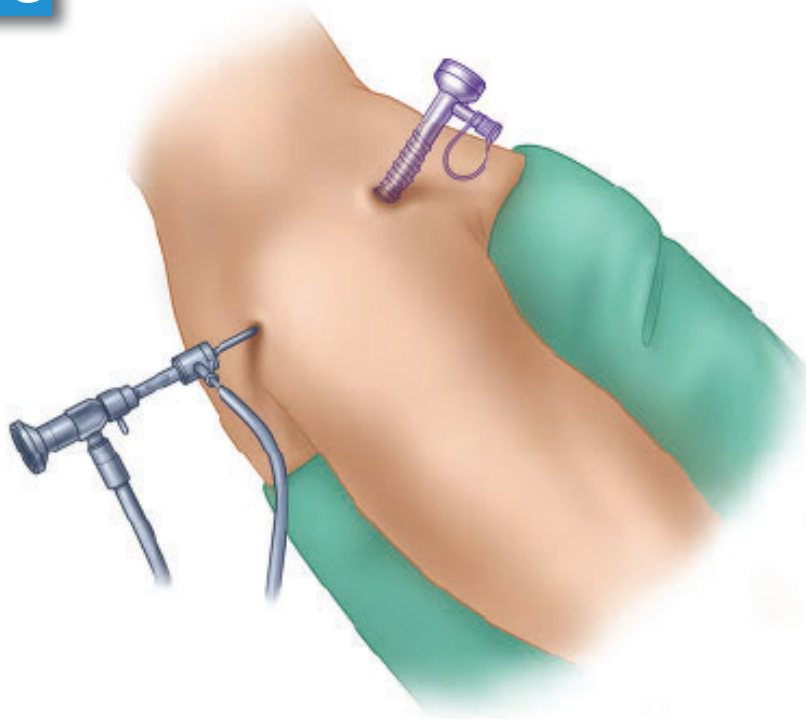


Suture/Driver Attachment

Pull all strands of suture(s)/tape over the end of the driver handle and into the slot in the middle of the handle. Depress silver suture cleat button on side of driver handle to open up the suture cleat. Pull suture(s)/tape into open cleat, then release silver button with suture(s)/tape under tension. Do not overtension sutures to avoid bending the flex shaft in the driver.

STEP 2 - ARTHROSCOPIC PREPARATION

FIGURE
06

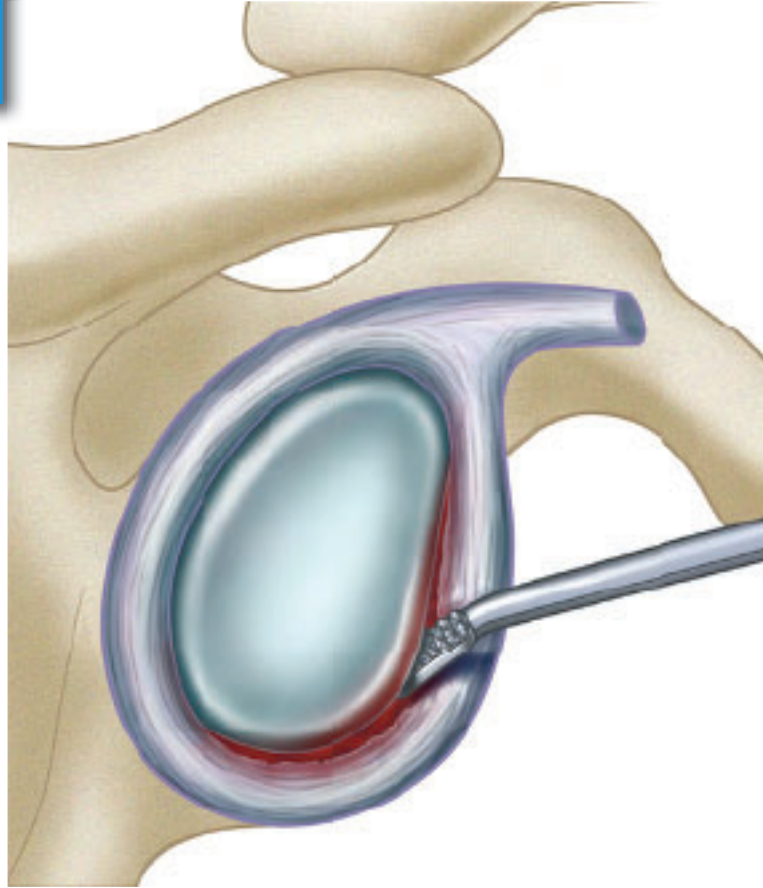


Patient Positioning and Portal Placement

Place patient in the beach chair or lateral decubitus position depending on surgeon preference. Access labral pathology to carry out arthroscopic shoulder stabilization utilizing an arthroscopic cannula. Placement of the cannula should be just superior to the subscapularis tendon using an anterior portal. Note: A spinal needle can be used to localize and ensure proper angle and canula placement. Standard posterior placement is utilized for diagnostic purposes. A standard anterior portal located superior to the subscapularis tendon may be created if necessary. If a Bankart labral tear is encountered, an anterior-superior portal may be placed for arthroscopic viewing with instrumentation through the anterior portal. If a SLAP labral tear is encountered, a superior portal may be placed for viewing and instrumentation.

STEP 2 - ARTHROSCOPIC PREPARATION

FIGURA
07



Prepare Surface

The bone surface may be roughened as desired to create a bleeding bone surface; however, cortical bone integrity must not be compromised at anchor sites. An elevator should be used to help free scarred tissue from surrounding bony anatomy to allow tissue mobilization.

STEP 3 - PILOT HOLE PREPARATION

FIGURE
08



Drill Guide Introduction

Using surgeon's preferred ICONN Square Drill Guide (225004CS pictured) with ICONN Square Sharp (225005) or Blunt (225006) Obturator inside, introduce drill guide into the joint.

FIGURE
09



Select Anchor Location

Remove obturator from drill guide and place drill guide on desired anchor location on the glenoid or acetabular rim. If using curved drill guide, orient the curvature of the drill guide to make angle as close to perpendicular to surface of bone as possible.

FIGURE
10



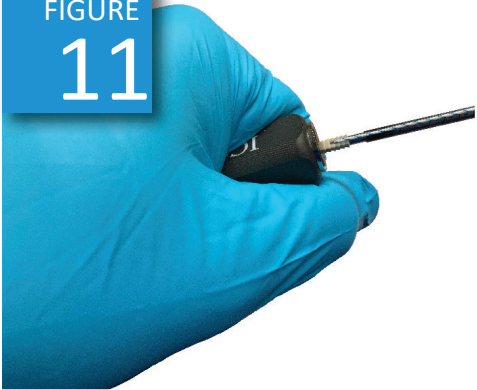
Drill Pilot Hole

Connect ICONN Square Suture Anchor Drill (225002 or 225002R for shoulder and 225002H or 225002HR for hip) to drill chuck. Insert drill into drill guide and advance until drill tip makes contact with bone. Drill with slight downward force until stop on drill bit meets the back of the drill guide handle. Remove drill (should be in the forward position the entire time). Remove drill completely from drill guide while maintaining position of drill guide.

THE CURVED DRILLS (225002 and 225002H) ARE SINGLE USE AND SHOULD NOT BE REPROCESSED. DISCARD AFTER EACH USE.

STEP 4 - ANCHOR INSERTION

FIGURE
11



Anchor Introduction

While maintaining drill guide position, introduce anchor into the drill guide. Make sure anchor orientation is such that the one of the flat sides of the anchor is facing the labrum in order to minimize the footprint in the narrow plane of the glenoid/acetabular rim. Advance anchor down guide until the tip of the anchor contacts the surface of the bone.

FIGURE
12



Anchor Insertion

While maintaining drill guide position, mallet anchor into bone until the proximal laser line (closest to driver handle) on the driver shaft matches up with the back of the drill guide. At this time the distal laser line (closest to anchor) on the driver shaft will also match up with the laser line on the drill guide.

FIGURE
13



Driver Removal

Depress silver suture cleat button and remove sutures from cleat. Unscrew driver from anchor and pull back on driver and drill guide to remove. Using cross pin or hemostat, remove disposable tip from end of driver by rotating driver handle clockwise (remember, this is a reverse thread).

STEP 5 - SUTURE PASSING AND REPAIR

FIGURE
14



Suture Passing

Prior to passing suture(s)/tape, cycle suture to verify it slides freely. Pass suture(s)/tape adjacent to anchor through/around labrum using surgeon's preferred passing technique. Verify suture(s) slide(s) freely for knot tying.

FIGURE
15



Secure Torn Tissue

Tie knots using surgeon's preferred knot tying technique making sure to achieve desired post-repair tension. Cut excess suture using a standard suture cutter.

FIGURE
16



Complete Repair

Repeat previous steps until desired number of anchors are inserted and torn tissue is fully secured. Upon completion, close arthroscopic incisions.


IMPLANT AND INSTRUMENT LIST

PART NUMBER	DESCRIPTION
125000	ICONN Square 2.5MM Suture Anchor
225001	ICONN Square Suture Anchor Driver
225001R	ICONN Square Suture Anchor Driver - Rigid
*225002	ICONN Square Suture Anchor Drill (SINGLE USE)
*225002H	ICONN Square Suture Anchor Drill - Hard Bone (SINGLE USE)
225002R	ICONN Square Suture Anchor Drill - Rigid
225002HR	ICONN Square Suture Anchor Drill - Hard Bone, Rigid
225003SH	ICONN Square Crown Tip Drill Guide - Straight
225003CH	ICONN Square Crown Tip Drill Guide - Curved
225003SL	ICONN Square Crown Tip Drill Guide - Slotted
225004SS	ICONN Square Fish Mouth Drill Guide - Straight
225004CS	ICONN Square Fish Mouth Drill Guide - Curved
225005	ICONN Square Sharp Obturator
225006	ICONN Square Blunt Obturator


*Denotes Single Use

SUTURE AND TAPE LIST

PART NUMBER	DESCRIPTION
HSe-2C-NN	HS Fiber White/Blue #2 Suture
HSe-2K-NN	HS Fiber White/Black #2 Suture
HSe-2G-NN	HS Fiber White/Green #2 Suture
HSe-2XC-NN	HS Fiber Blue #2 Suture
HS169	HS Fiber White/Blue #2 Looped Suture
HS226	1.6mm TetherTape™ White/Blue
HS227	1.6mm TetherTape™ White/Black
HS228	1.6mm TetherTape™ White/Blue/Blue/Black
HS229	1.6mm TetherTape™ White/Green



We are designing products, and even more so,
a company which is equally as innovative from
a performance standpoint as from a
cost-reduction standpoint.



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