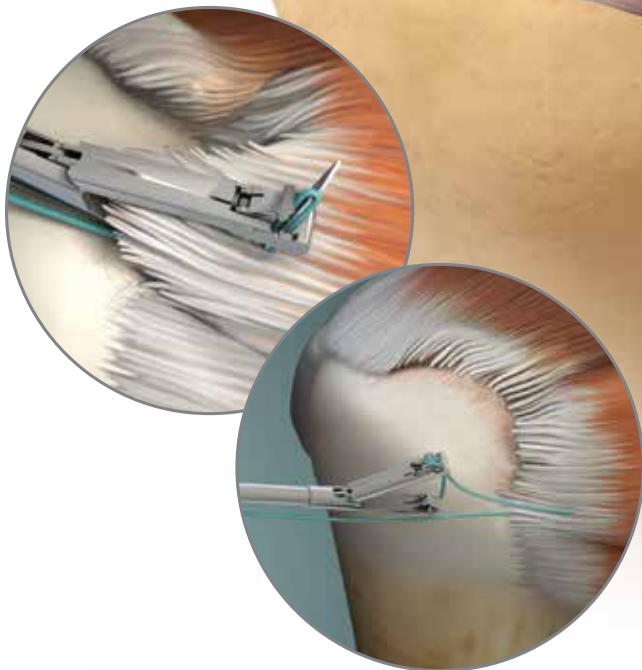


# Quattro® Shoulder System Innovative Rotator Cuff Solutions

Quattro Link Knotless Anchor – Inverted Mattress Stitch Technique  
Quattro X Suture Anchor – Simple Stitch Technique

Surgical Technique





# Quattro Link Knotless Anchor

## Rotator Cuff Repair – Single Row/Inverted Mattress Stitch

The Quattro Link Knotless Anchors are intended for use for the reattachment of soft tissue to bone for various procedures throughout the body. It has a unique eyelet design that allows independent tensioning of each suture strand based on the characteristics of the rotator cuff tear. The eyelet cleat feature allows tension to be set, held, reversed (if necessary), and maintained during anchor deployment.



- Surgeon-controlled tensioning after insertion
- The only anchor cleared to accept 8 suture limbs
- Strong reliable repair with 519N pull out strength\*

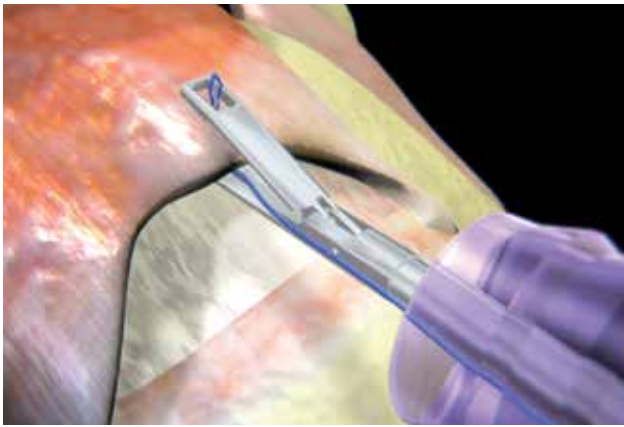


Figure 1

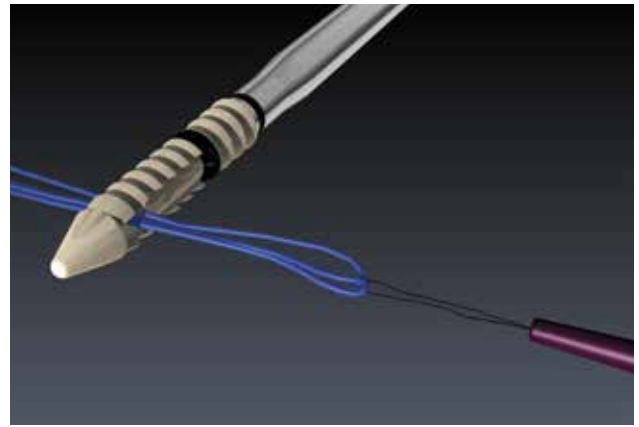


Figure 3

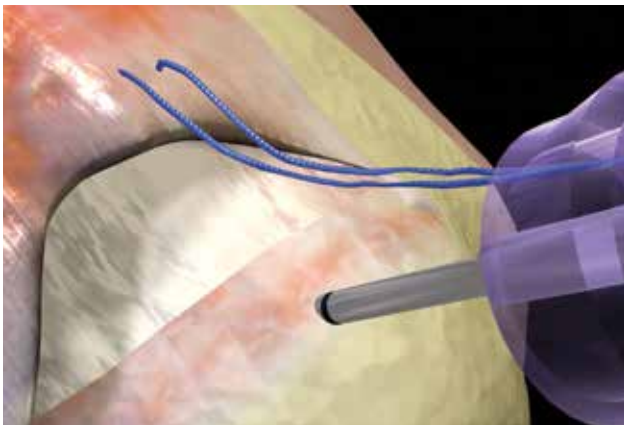


Figure 2

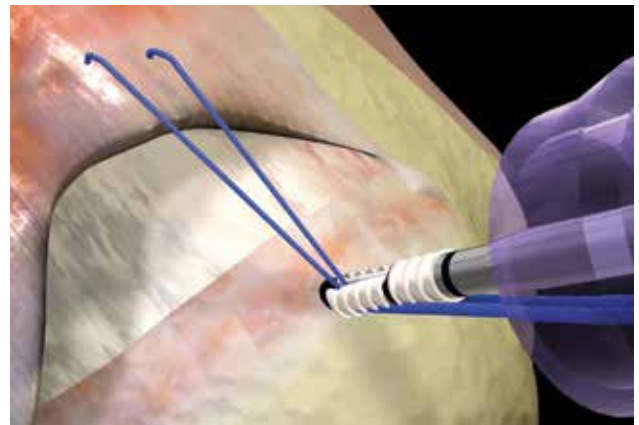


Figure 4

### Step 1: Pass Suture

Using the Quattro suture passer, pass the desired stitches of #2 Force Fiber® (UHMWPE) high strength suture through the rotator cuff based on the tear location. Retrieve the suture limbs to be loaded into the anchor out of the same cannula (Figure 1).

### Step 2: Create Pilot Hole

Create a pilot hole for the anchor by lightly malleting the strike plate on the awl. Advance the awl until the distal edge of the marker band is flush with the bone (Figure 2).

### Step 3: Load Suture into Anchor

Place the suture limbs through the suture snare. Pull the snare handle to load the suture limbs through the eyelet of the anchor (Figure 3).

ⓘ **Note:** Quattro Link is cleared to accept up to 8 suture limbs.

### Step 4: Insert Anchor

Hold light tension on the suture strands outside of the joint space and advance the anchor through the cannula. Once the anchor is through the cannula, release the tension on the suture strands.

The suture strands coming from the tissue should feed directly into the anchor eyelet (not behind or twisted around the anchor). Place the tip of the anchor into the pilot hole (Figure 4).

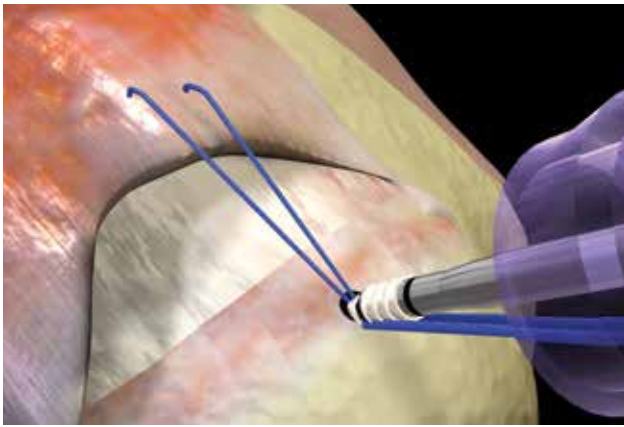


Figure 5



Figure 7

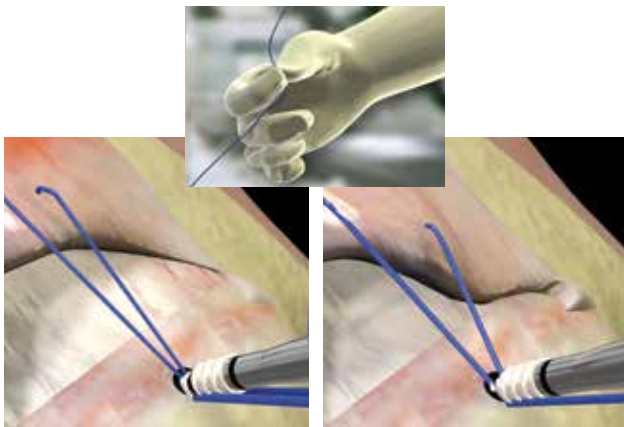


Figure 6

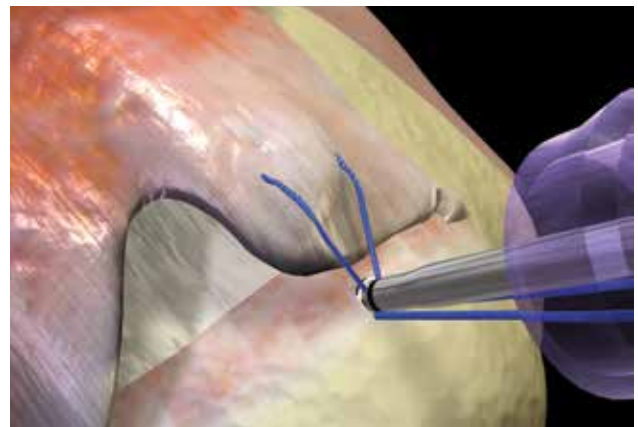


Figure 8

### Step 5: Mallet to First Laser Line

Mallet the inserter handle to advance the anchor to the distal edge of the 1<sup>st</sup> Marker Band on the anchor. DO NOT mallet past the 1<sup>st</sup> horizontal marker band. Proper anchor insertion depth will allow for proper suture tensioning (Figure 5).

### Step 6: Tension Suture

While applying forward pressure against the anchor, individually tension each suture strand and release. The Quattro Link Knotless Anchor is uniquely designed to maintain tension without having to manually hold each suture limb (Figure 6).

ⓘ **Note:** If the surgeon feels the suture is over tensioned, tension may be released by using an arthroscopic probe to loosen the suture tension and re-tension.

### Step 7: Rotate Post-Tension Knob

Rotate the purple Post Tension Knob clockwise on the inserter handle until it stops (Figure 7).

### Step 8: Mallet to Second Laser Line

Mallet the inserter handle until the distal edge of the 2<sup>nd</sup> Marker Band on the inserter shaft is flush with the bone (Figure 8).

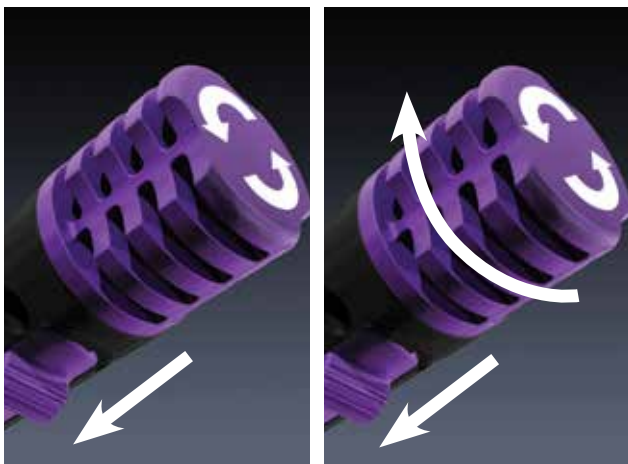


Figure 9

### Step 9: Release Inserter

Push and hold down the Anchor Release Slide and rotate the Post Tension Knob clockwise until the inserter releases from the anchor (Figure 9).

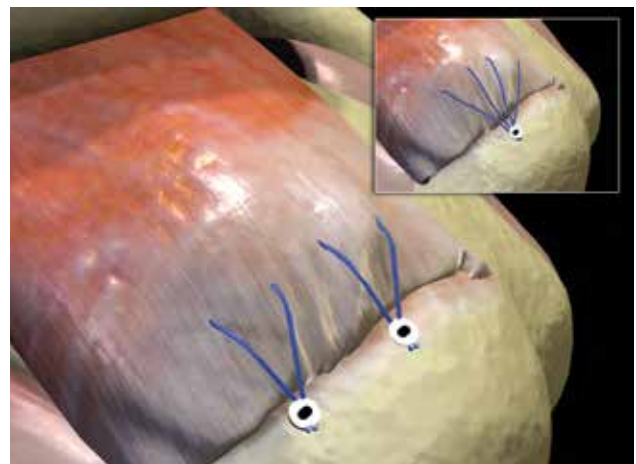


Figure 10

### Step 10: Cut Suture

Cut the suture strands with the Quattro Suture Cutter (Figure 10).



# Quattro X Suture Anchor

## Rotator Cuff Repair – Single Row/Simple Stitch

The Quattro X Suture Anchors are intended for use for the reattachment of soft tissue to bone in Rotator Cuff Repairs. The anchor is pre-loaded with two strands of #2 Force Fiber (UHMWPE) high strength suture (colors: solid blue/blue co-braid). A progressive tapered dual thread allows for increased engagement with the cortex.



- Unique drop-in anchor tip allowing for effortless insertion
- Bio-Inert, radiolucent PEEK-OPTIMA<sup>®</sup> material
- Tapered thread design delivers optimal purchase to bone - 447N pull out strength\*

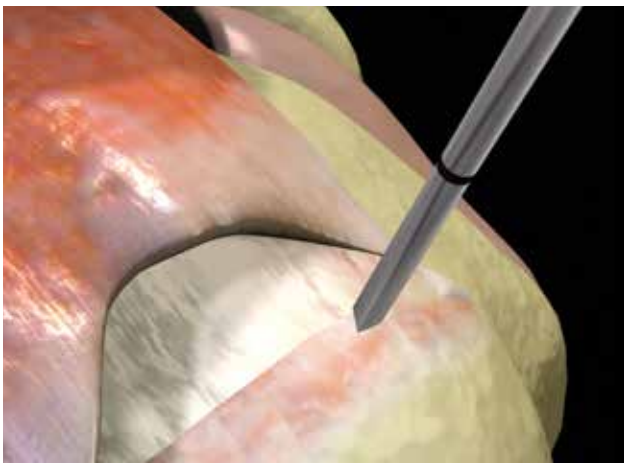


Figure 10

### Step 1: Create Pilot Hole

Place the Quattro X awl through a lateral accessory portal at a 45° “deadman” angle. This angle is recommended for proper anchor insertion and fixation. Mallet until the distal edge of the 1<sup>st</sup> Marker Band is flush with the bone for a 5.5 mm anchor and the 2nd marker band for a 6.5 mm anchor (Figure 10).

**Note:** Taps for the 5.5 mm & 6.5 mm anchor are available and recommended to be used in hard bone.

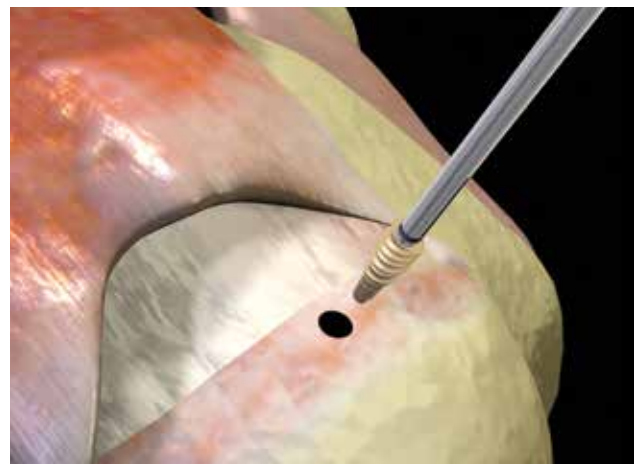


Figure 11

### Step 2: Insert Anchor

Insert the Quattro X Anchor through the same portal as the awl at the same 45° angle. Screw in the anchor until the horizontal marker band is flush with the bone. Make sure that the vertical marker band is facing or adjacent to the tissue edge. The vertical marker band indicates the suture orientation (Figure 11).





Figure 12

### **Step 3: Release Suture from Inserter**

Pull the suture limbs completely out of the driver handle and release from cleat. Pull the driver handle axially to disengage the inserter shaft from the anchor.

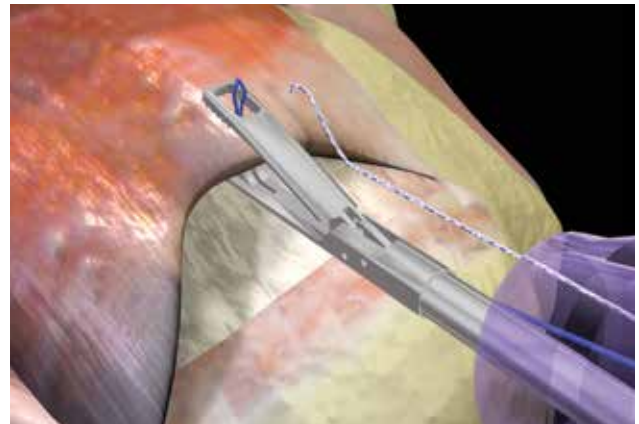


Figure 13

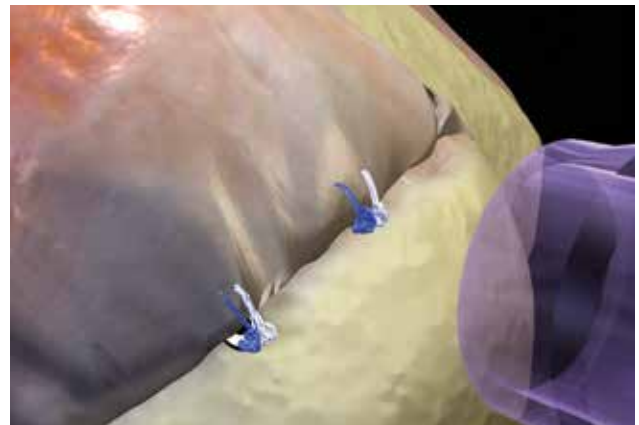


Figure 14

### **Step 4: Pass Suture**

Pass the suture through the tissue.

### **Step 5: Tie Knots**

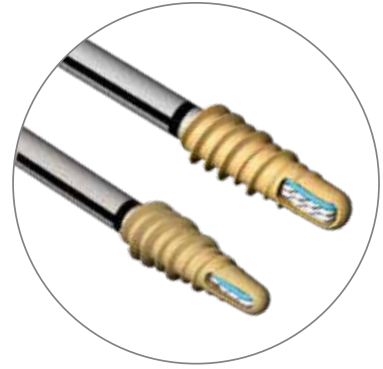
Tie knots with an arthroscopic knot pusher and cut suture.



**Quattro Link  
Knotless Anchor**



**Quattro Link SP  
Knotless Anchor**



**Quattro X/X3  
Suture Anchor**

### Quattro Link Knotless Anchors

CM-9129	Quattro Link Knotless Anchor 2.9 mm
CM-9145	Quattro Link Knotless Anchor 4.5 mm
CM-9145SP	Quattro Link SP Knotless Anchor 4.5 mm, Metal Tip
CM-9155	Quattro Link Knotless Anchor 5.5 mm

### Quattro X Suture Anchors

CM-9255	Quattro X Suture Anchor, 5.5 mm pre-loaded with (2) Size 2 Force Fiber® Sutures
CM-9255X3	Quattro X3 Suture Anchor, 5.5 mm pre-loaded with (3) Size 2 Force Fiber Sutures
CM-9265	Quattro X Suture Anchor, 6.5 mm pre-loaded with (2) Size 2 Force Fiber Sutures

### Quattro Instruments

CM-9010GT	Quattro GT Suture Passer with grasping top jaw
CM-9010	Quattro Suture Passer
CM-9010LS	Lock-Stitch® Suture Passer
CM-9100	Awl – for 4.5 mm & 5.5 mm Quattro Link Knotless Anchor
CM-9200	Awl – for 5.5 mm & 6.5 mm Quattro X Suture Anchor
CM-9201	Tap – for 5.5 mm Quattro X Suture Anchor
CM-9202	Tap – for 6.5 mm Quattro X Suture Anchor
CM-9203	Tap – for 5.5 mm Quattro X3 Suture Anchor

### Quattro Accessories

CM-0201	TRU-LINK blue braid (nonabsorbable) Size 2 suture
CM-0202	TRU-LINK white/blue co-braid (nonabsorbable) Size 2 suture
CM-9011	Suture Passer Needle

## Quattro X and X3 Suture Anchors

### INDICATIONS FOR USE

The Quattro X and X3 Suture Anchors are intended for use for the reattachment of soft tissue to bone for Rotator Cuff Repairs.

### CONTRAINDICATIONS

1. Surgical procedures other than those listed in the INDICATIONS section.
2. Presence of infection.
3. Patient conditions including insufficient or immature bone.
4. Insufficient blood supply or previous infections which may hinder the healing process.
5. Foreign body sensitivity. If material sensitivity is suspected, testing should be completed prior to device implantation.
6. The physician should carefully assess the device within immature bone.
7. The placement of this device should not impact or disrupt the growth plate.
8. Conditions which may limit the patient's ability or willingness to follow postoperative care instructions.

## Quattro Link Knotless Anchor

### INDICATIONS FOR USE

The Quattro Link Knotless Anchors are intended to be used for the reattachment of soft tissue to bone for the following indications:

#### Shoulder

- Capsular stabilization
  - Bankart repair
  - Anterior shoulder instability
  - SLAP lesion repairs
  - Capsular shift or capsulolabral reconstructions
- Acromioclavicular separation repairs
- Deltoid repairs
- Rotator cuff repairs
- Biceps tenodesis

#### Elbow, Wrist, and Hand

- Biceps tendon reattachment
- Ulnar or radial collateral ligament reconstruction
- Lateral epicondylitis repair

#### Knee

- Extra-capsular repairs
  - Medial collateral ligament
  - Lateral collateral ligament
  - Posterior oblique ligament
- Patellar realignment and tendon repairs
- Iliotibial band tenodesis

#### Foot and Ankle

- Hallux valgus repairs
- Medial or lateral instability repairs/reconstructions
- Achilles tendon repairs/reconstructions
- Midfoot reconstructions
- Metatarsal ligament/tendon repairs/reconstructions
- Bunionectomy

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