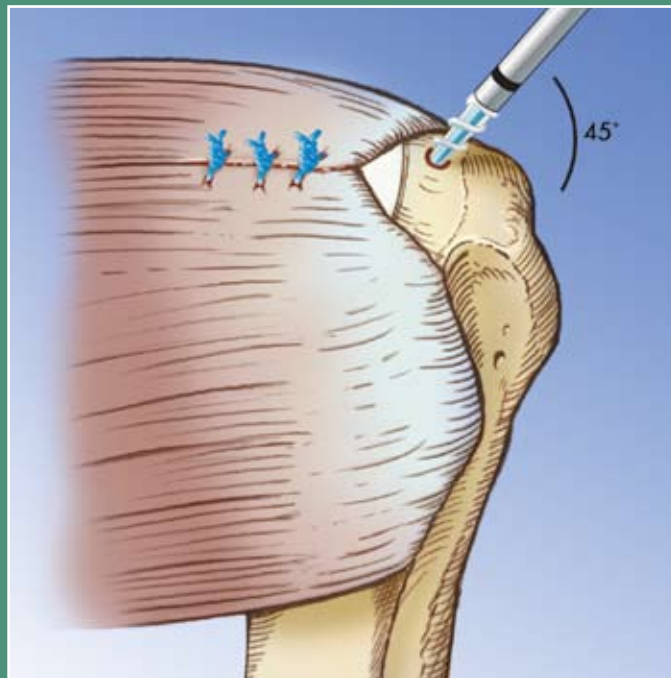


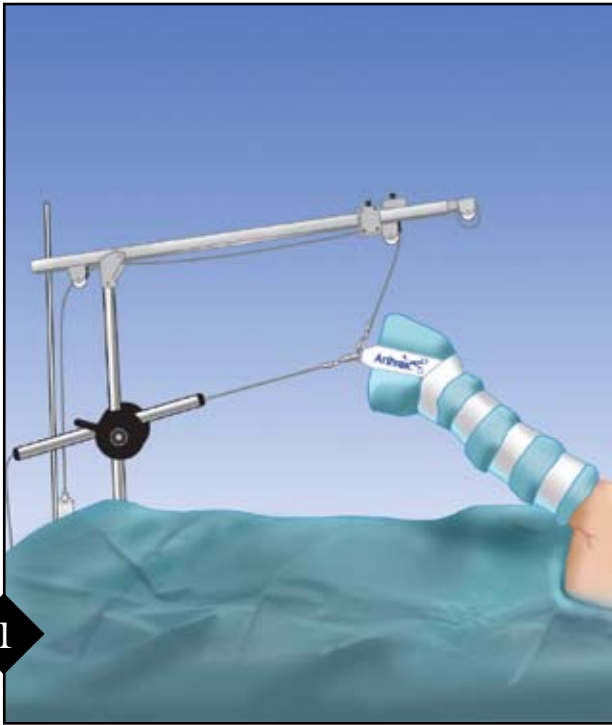


Bio-Corkscrew[®] Suture Anchor Rotator Cuff Repair

Surgical Technique

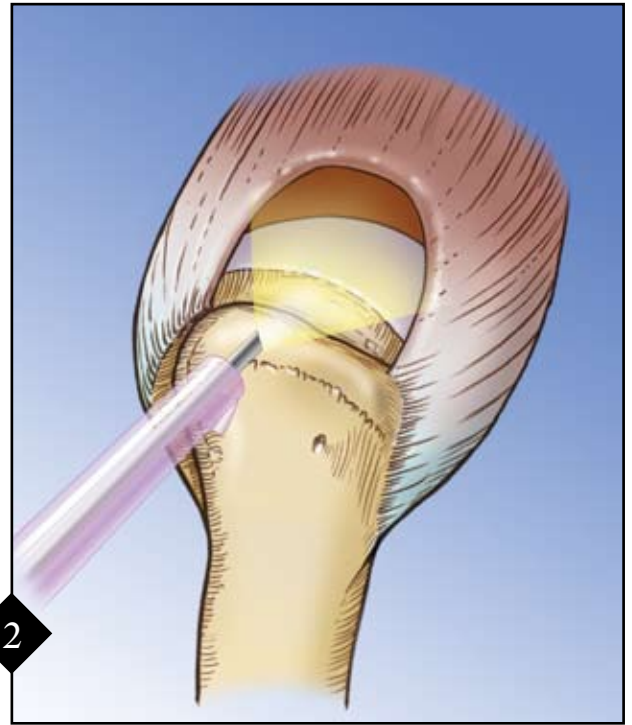


Arthroscopic Rotator Cuff Repair



1

The patient may be positioned in the beach chair position using the Beach Chair Lateral Traction Device or in a lateral decubitus position. The 3-Point Shoulder Distraction System with STaR™ Sleeve is used with 5 pounds of weight on the lower traction cable and 5 pounds on the upper traction cable.



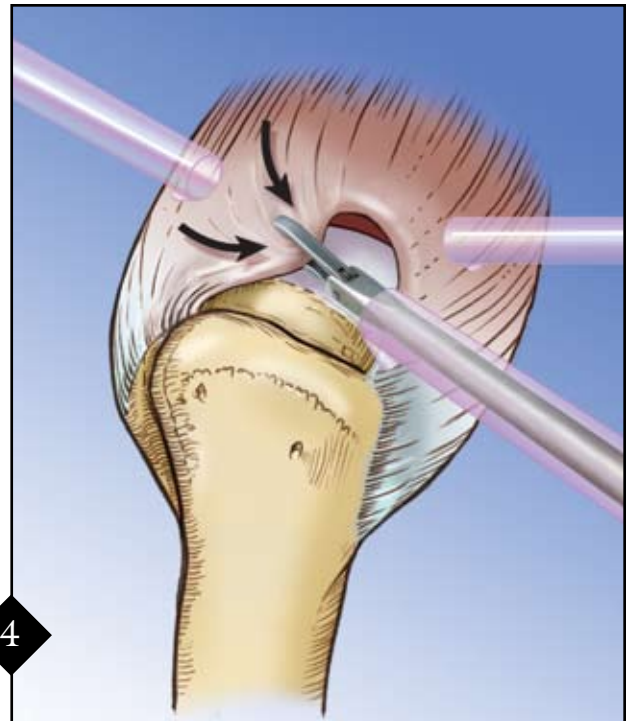
2

The rotator cuff tear is assessed visually through posterior and lateral viewing portals. This U-shaped tear has the appearance of one that can be closed side-to-side by margin convergence principles, but the mobility of the tear must be assessed manually to confirm the true tear pattern.



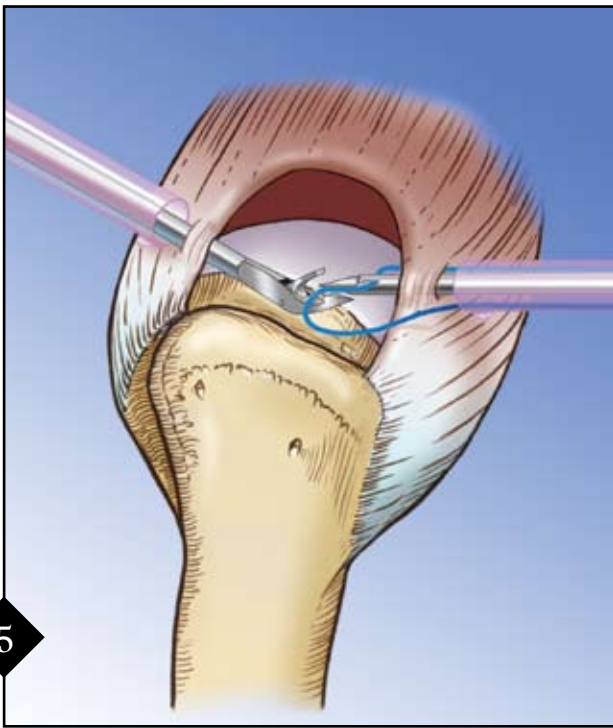
3

An atraumatic Rotator Cuff Grasper or KingFisher™ Suture Retriever/Tissue Grasper is inserted through a lateral portal. The medial apex of the tear is grasped and pulled laterally to assess the medial-to-lateral mobility of the tear, which in this case is minimal.

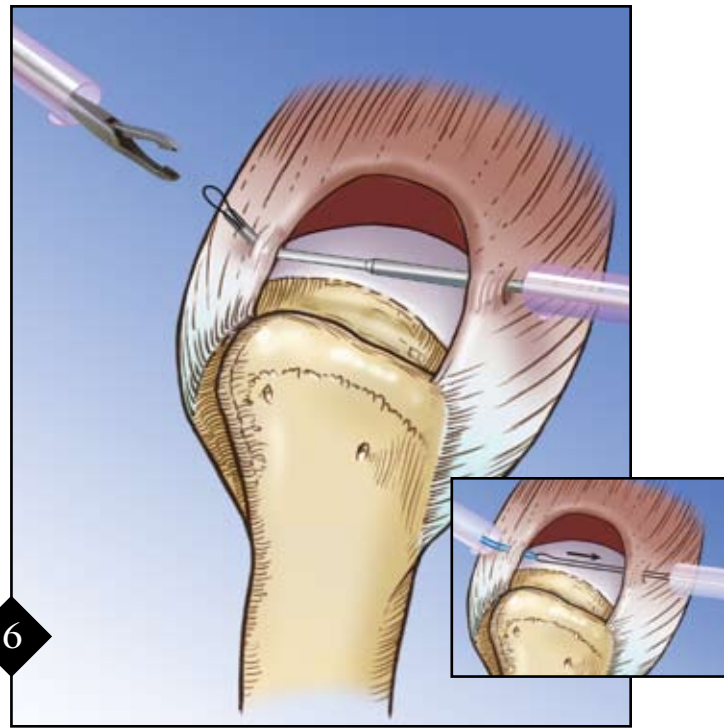


4

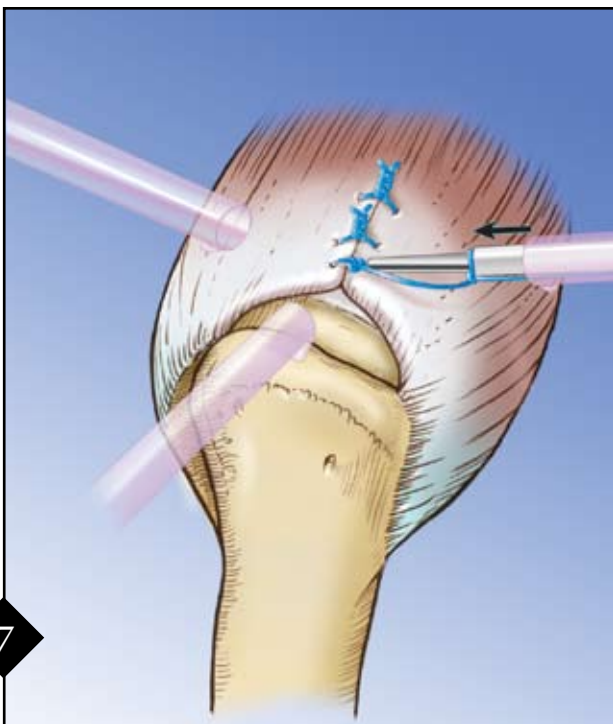
The Rotator Cuff Grasper or KingFisher is next used to sequentially test the side-to-side (anterior-to-posterior) mobility of the anterior and posterior leaves of the cuff. This tear is quite mobile anterior-to-posterior, indicating the repair should begin with side-to-side closure by margin convergence techniques.



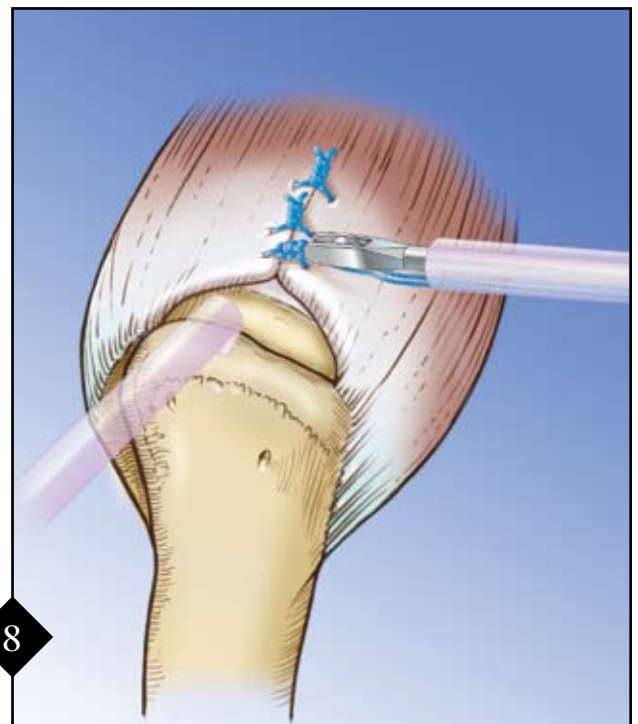
5
A hand-off technique may be used to pass side-to-side sutures. In this case, a Penetrator™ Suture Retriever has been used to pass a braided FiberWire® suture through the posterior leaf, then hand it off to a BirdBeak® suture passer that traverses the anterior leaf.



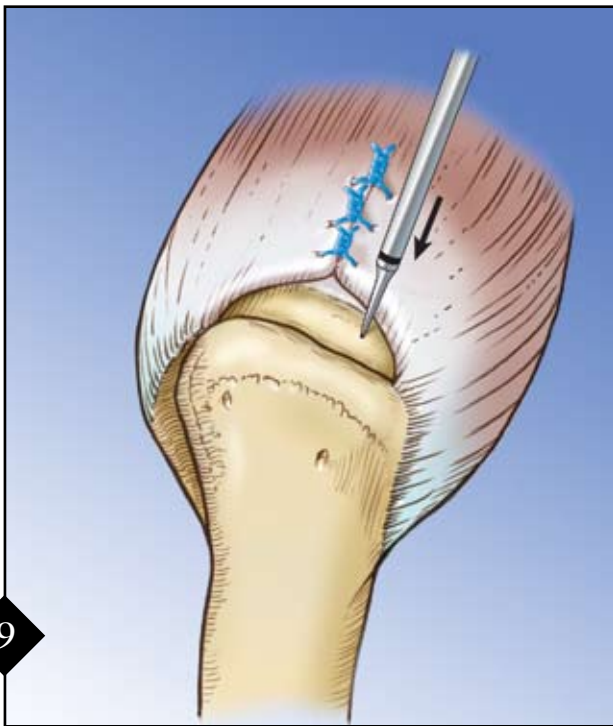
6
An alternative suture passing technique is to use the angled 45° or 90° SutureLasso™ through both leaves of the rotator cuff to pass a Nitinol loop and retrieve with the KingFisher. This loop serves as a shuttle to pass a braided suture through the cuff (*inset*).



7
After all the side-to-side FiberWire sutures have been passed, the 6th Finger Knot Pusher is used to tie each suture sequentially, beginning with the most medial suture and progressing laterally. Throwing six half hitches and alternating the post of the final three half-hitches ensures optimal knot security and loop security.

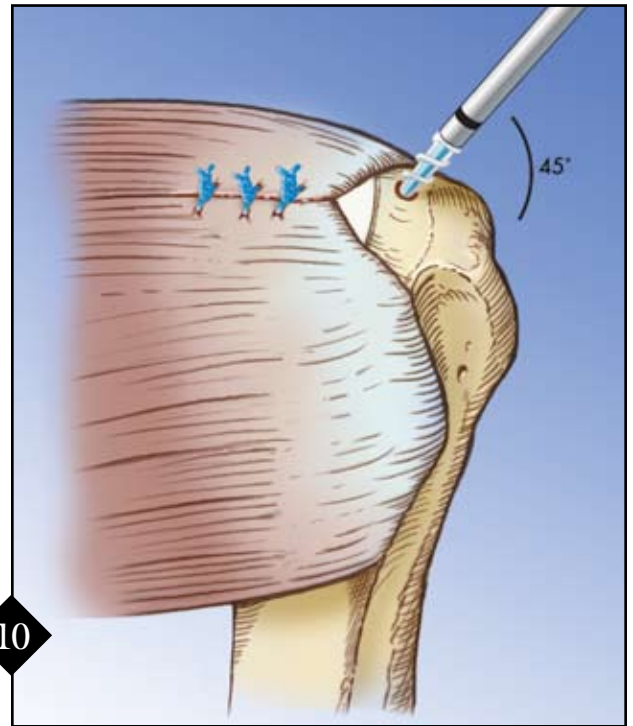


8
The FiberWire Suture Cutter has a recessed guillotine cutting jaw that assures a sharp cut with a 3 mm suture tail. At this point, the “converged margin” of the rotator cuff lies tension-free over the bone bed.



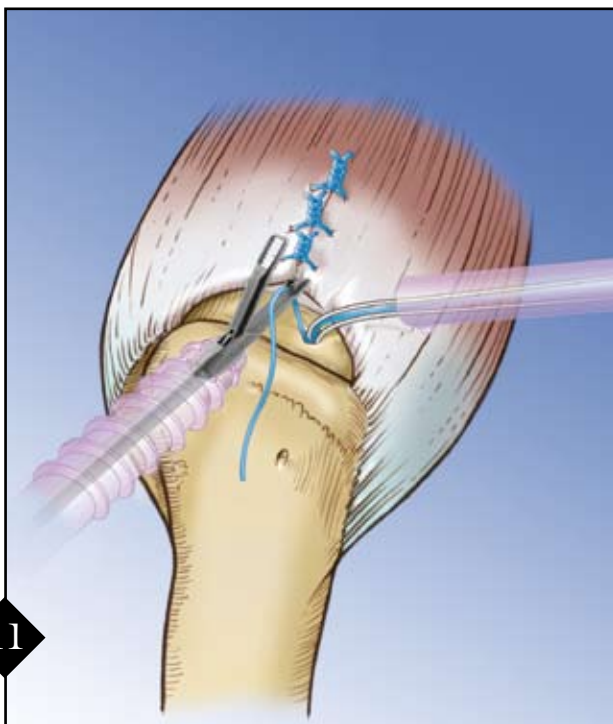
9

A Bio-Corkscrew Punch creates bone sockets for two Bio-Corkscrew Suture Anchors, one for the anterior leaf of the cuff and one for the posterior leaf. These are positioned approximately 5 mm from the articular margin. If the bone is very hard, a Bio-Corkscrew Tap is used after the punch.



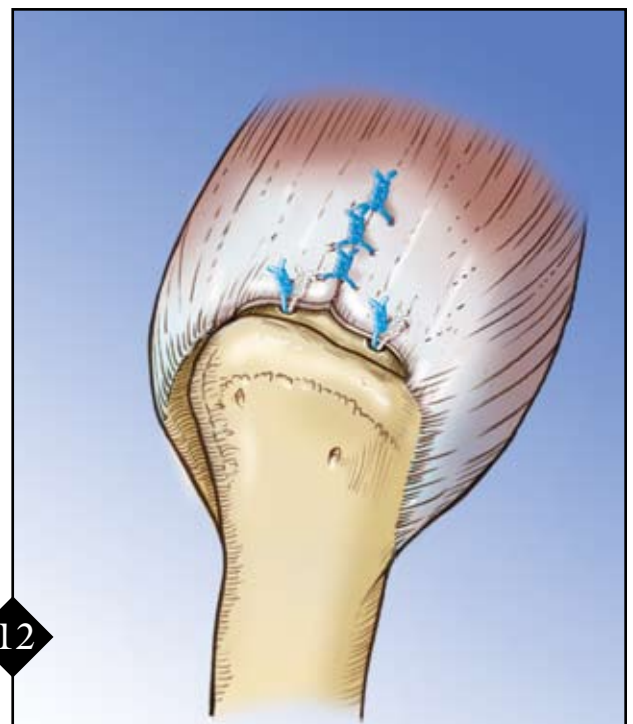
10

The Bio-Corkscrew is inserted at a 45 degree "deadman" angle to maximize resistance to pull-out.



11

The Scorpion™ Suture Passer is used for passing the sutures through the rotator cuff. Alternatively the Viper™ Suture Passer can be used with an 8.25 mm cannula. The FiberWire suture is loaded into the bottom jaw of the Scorpion approximately 1 - 2 inches from the end of the suture. The low profile design of the Scorpion allows for placement through a small diameter 5.75 mm Crystal Cannula®.



12

The repair is complete. A combination of margin convergence FiberWire sutures and tendon-to-bone fixation with Bio-Corkscrews has created an anatomic construct that is biomechanically sound and extremely secure.

Instruments and Implants:

Bio-Corkscrew Suture Anchor, 5 mm x 17.9 mm, w/handled inserter and two #2 FiberWire, qty. 5	AR-1920BF
STaR Sleeve, coban, sterile, qty. 6, single use	AR-1606
3-Point Shoulder Distraction System	AR-1600M
KingFisher Suture Retriever/Tissue Grasper	AR-13970SR
Rotator Cuff Grasper	AR-13960
Penetrator Suture Retriever, 15° up	AR-2167
BirdBeak, 22° up tip	AR-11890
SutureLasso, 45° with Wire Loop, sterile, single use	AR-4065W
SutureLasso, 90° with Wire Loop, sterile, single use	AR-4065-90W
6th Finger Knot Pusher	AR-1930S
Suture Cutter, straight	AR-12250
Scorpion Suture Passer	AR-13990
Scorpion Needle, sterile, single use	AR-13990N
Viper Suture Passer	AR-13900
Bio-Corkscrew Punch, 5 mm	AR-1920PB
Bio-Corkscrew Combo Punch/Tap, 5 mm	AR-1920PTB
Crystal Cannula, 5.75 mm x 7 cm, partially threaded, distal end, sterile, qty. 5, single use	AR-6564
Partially Threaded Cannula w/no squirt cap, 8.25 mm x 7 cm, w/obturator, sterile, qty. 5, single use	AR-6566

*U.S. PATENT NOS. 5,746,752; 5,964,783; 6,074,403; 6,517,552; 6,716,234;
6,896,686; 6,916,333; 6,991,636 and PATENTS PENDING*



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This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's Directions For Use.

Designed in conjunction with Stephen S. Burkhart, M.D., San Antonio, TX

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