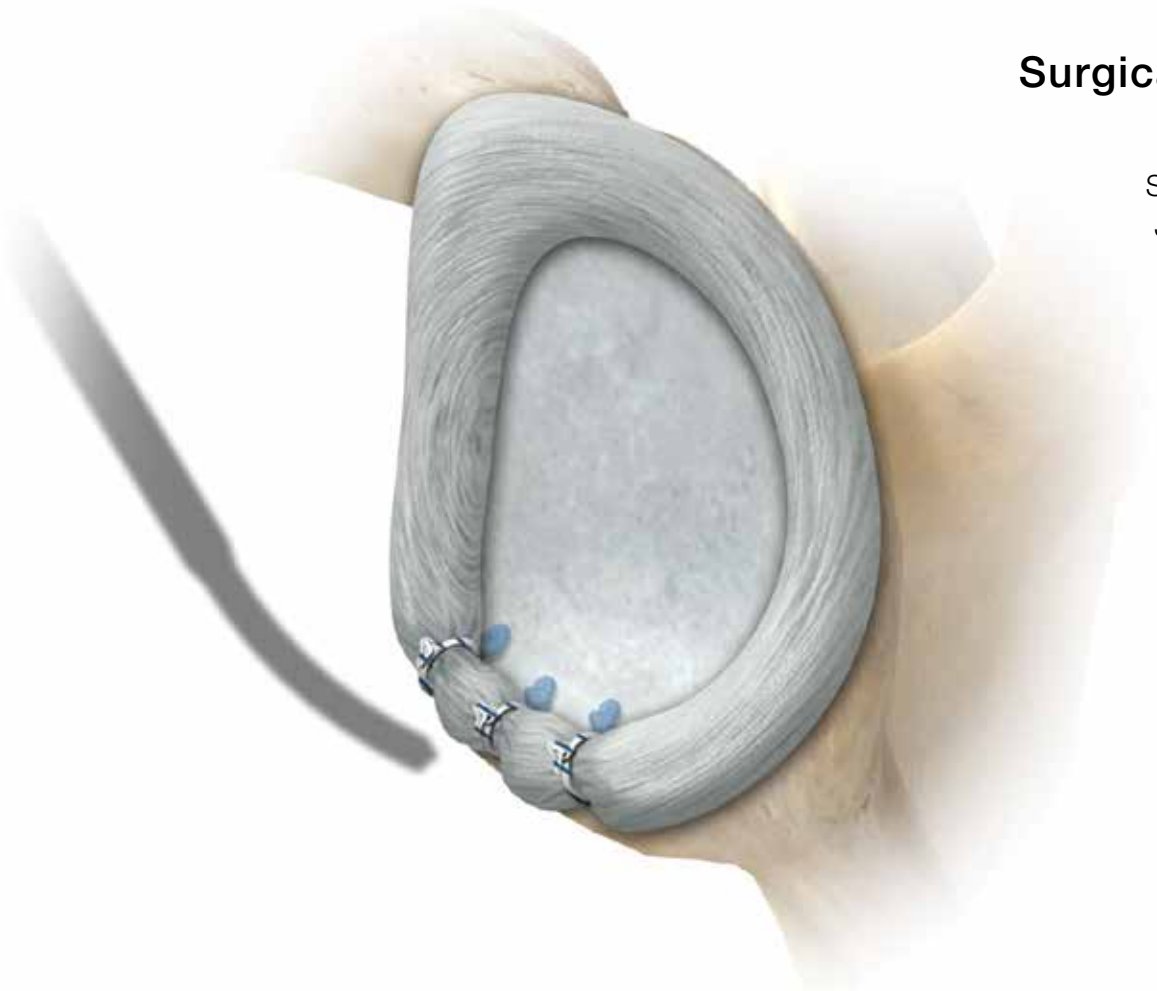
JuggerKnot™ Soft Anchor-1.4/1.5 mm

Curved Delivery for Bankart/SLAP Lesion Repair



Surgical Technique

Surgical Protocol by
Jeffrey Hartzell, MD

BIOMET® SPORTS MEDICINE

One Surgeon. One Patient.®

Over 1 million times per year, Biomet helps one surgeon provide personalized care to one patient.

The science and art of medical care is to provide the right solution for each individual patient. This requires clinical mastery, a human connection between the surgeon and the patient, and the right tools for each situation.

At Biomet, we strive to view our work through the eyes of one surgeon and one patient. We treat every solution we provide as if it's meant for a family member.

Our approach to innovation creates real solutions that assist each surgeon in the delivery of durable personalized care to each patient, whether that solution requires a minimally invasive surgical technique, advanced biomaterials or a patient-matched implant.

When one surgeon connects with one patient to provide personalized care, the promise of medicine is fulfilled.

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Figure 1

Figure 2

Portal Placement

Access labral pathology to carry out arthroscopic shoulder stabilization utilizing a flexible 7mm AquaLoc® Cannula. Placement of the cannula should be just superior to the subscapularis tendon using an anterior/inferior portal (Figure 1).

Prepare Surface

To promote fibroblastic healing to bone, a bleeding bone surface is prepared with the Biomet Sports Medicine rasp/elevator system (Figure 2). A 15˚ or 30˚ Biomet Sports Medicine tissue elevator may help free significant tissue scarring off the scapular neck. A shaver may need to be introduced to remove any fibrous adhesions.

This technique is presented to demonstrate the surgical technique by Jeffrey Hartzell, M.D. Biomet Sports Medicine, as the manufacturer of this device, does not practice medicine and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any procedure is responsible for determining and utilizing the appropriate techniques and products for each individual patient.

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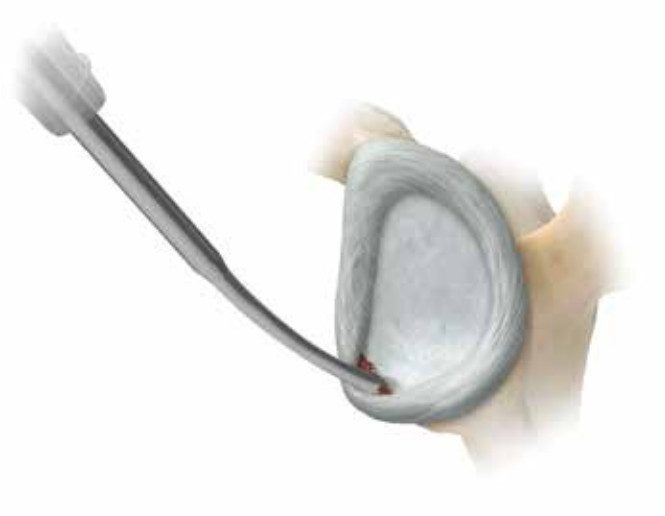

Figure 3

Figure 4

Placement of Curved Guide

The curved design of the JuggerKnot™ guide allows easy access to the lower 5 o'clock position for anatomical attachment of the labral tissue. The curved guide is passed through the flexible anterior/inferior 7mm AquaLoc® Cannula at the lower position of the glenoid. Position the JuggerKnot™ curved guide at the desired location on glenoid bone (Figure 3).

Drill Pilot Hole with the Flexible Drill

Insert the appropriate sized JuggerKnot™ drill bit (dependent upon size of anchor selected) into the power drill to the proximal laser etch line to ensure appropriate depth. Insert the JuggerKnot™ drill into the drill guide. Advance drill until contact is made with curved guide (Figure 4).

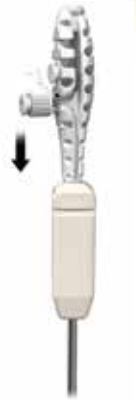

Figure 5

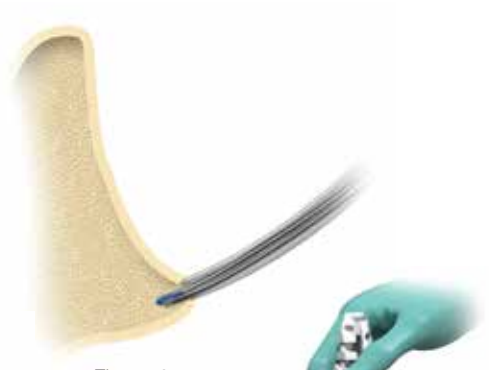

Figure 6

Figure 7

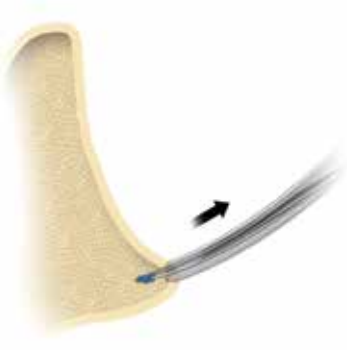

Figure 8

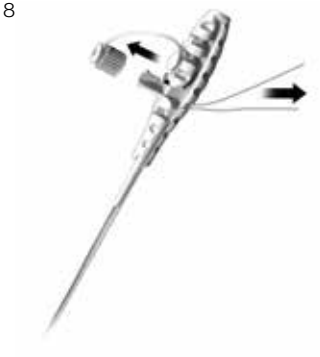

Figure 9

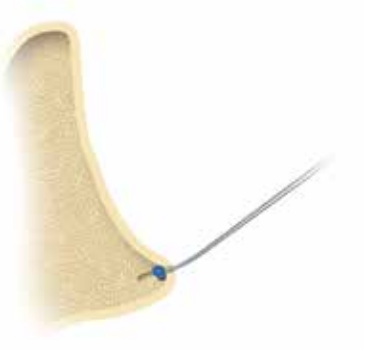

Figure 10

Insert Anchor

Remove the drill. **Note: Caution must be taken to maintain precise guide position over the pilot hole during removal.** While maintaining the curved guide position firmly against the bone, insert the JuggerKnot™ Soft Anchor size 1.4mm with a #1 MaxBraid™ suture or 1.5mm with a #2 MaxBraid™ suture through the guide and into the pilot hole. Lightly mallet till handle is flush with the guide to fully seat the JuggerKnot™ implant (Figure 5). Visualize the laser etch marks to ensure anchor is inserted to appropriate depth (Figure 6).

Deploy Anchor

Once anchor has been fully seated into glenoid bone, lightly pull back on anchor inserter handle to set the anchor (Figures 7 and 8). Release the suture from the handle by unscrewing the suture retention feature (Figure 9). Pull anchor inserter handle directly back from the guide and then remove the guide. Lightly pull on both sutures to set the anchor (Figure 10) and verify that the sutures slide.

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Figure 11

Retrieve Suture

A suture grasper is used to transfer a single suture limb closest to bone to the anterior/superior portal. The tip of the instrument can be used to separate the suture strands to retrieve desired limb of suture.

The 25° SpeedPass™ Suture Lariat is inserted into the anterior/inferior cannula and passed through labral tissue inferior to anchor position. Once the tip of the SpeedPass™ Lariat penetrates the tissue, the Nitinol wire can be manually advanced into the joint. The suture grasper is used to retrieve the Nitinol wire loop through the anterior/superior portal and the SpeedPass™ Lariat inserter is removed.

Outside the anterior/superior portal, 5 cm of suture from the suture limb is passed through the Nitinol wire loop, and the wire extending out the anterior cannula is pulled out the cannula. The suture will then shuttle through the labral tissue and out the anterior/inferior portal cannula.

Desired arthroscopic knots are then tied (Figure 11) with an open or closed knot pusher.

The Slotted MaxCutter™ can be used to cut the MaxBraid™ Suture.

SLAP Lesion Repair

SLAP repair may be performed in a similar manner. The JuggerKnot™ Soft Anchor–1.4mm or 1.5mm can be inserted through the rotator interval superior to the subscapularis to mitigate the chance of violating the rotator cuff.

Ordering Information

JuggerKnot™ Soft Anchor-1.4 mm

Part Number	Size	Description
912030	1.4 mm	JuggerKnot™ Soft Anchor Single Loaded
912010	1.4 mm	JuggerKnot™ Soft Anchor Package of 10
912000	1.4 mm	Two JuggerKnot™ Implants with Instruments
912040	1.4 mm	JuggerKnot™ Instrument Kit (Guide, Drill, Obturator)
912038	1.4 mm	JuggerKnot™ Reusable Trocar
912040C	1.4 mm	JuggerKnot™ Curved Guide Kit (Guide, Drill, Obturator)
912038C	1.4 mm	JuggerKnot™ Flexible Trocar (Curved)
912039C	1.4 mm	JuggerKnot™ Flexible Obturator (Curved)
912036	1.4 mm	JuggerKnot™ Flexible Drill Bit
912036R	1.4 mm	JuggerKnot™ Rigid Drill Bit

JuggerKnot™ Soft Anchor-1.5 mm

Part Number	Size	Description
912031	1.5 mm	JuggerKnot™ Single Loaded
912015	1.5 mm	JuggerKnot™ Package of 10
912041	1.5 mm	JuggerKnot™ Straight Disposable Kit
912041C	1.5 mm	JuggerKnot™ Curved Disposable Kit
912037	1.5 mm	JuggerKnot™ Flexible Drill Bit
912037R	1.5 mm	JuggerKnot™ Rigid Drill Bit

JuggerKnot™ Soft Anchor-1.4/1.5 mm Guides

Part Number	Size	Description
912035	1.4 & 1.5 mm	JuggerKnot™ Straight Reusable Guide
912035C	1.4 & 1.5 mm	JuggerKnot™ Curved Reusable Guide

INDICATIONS
The JuggerKnot™ Soft Anchors are intended for soft tissue to bone fixation for the following indications:

SHOULDER
Bankart lesion repair
SLAP lesion repair
Acromio-clavicular repair
Capsular shift / capsulolabral reconstruction
Deltoid repair
Rotator cuff tear repair
Biceps tenodesis

FOOT AND ANKLE
Medial / lateral repair and reconstruction
Mid- and forefoot repair
Hallux valgus reconstruction
Metatarsal ligament/tendon repair or reconstruction
Achilles Tendon Repair

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

KNEE
Extra-capsular repair: MCL, LCL, and posterior oblique ligament
Iliotibial band tenodesis
Patellar tendon repair
VMO advancement
Joint capsule closure

HAND AND WRIST
Collateral ligament repair
Scapholunate ligament reconstruction
Tendon transfers in phalanx
Volar plate reconstruction

HIP
Acetabular labral repair

CONTRAINDICATIONS
1. Infection.
2. Patient conditions including blood supply limitations and insufficient quantity or quality of bone or soft tissue.
3. Patients with mental or neurologic conditions who are unwilling or incapable of following postoperative care instructions or patients who are otherwise unwilling or incapable of doing so.
4. Foreign body sensitivity. Where material sensitivity is suspected, testing is to be completed prior to implantation of the device.

For product information, including indications, contraindications, warnings, precautions, and potential adverse effects, see the package insert and patient risk information on Biomet's website.

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SPORTS MEDICINE

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Responsible Manufacturer
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