Distal Biceps Repair Using the BicepsButton[™] Implant and Tension-Slide Technique

Surgical Technique





Distal Biceps Repair Using the BicepsButton™ Implant and Tension-Slide Technique

This implant and technique allow tensioning and repair of the biceps tendon through a single anterior incision. The combination of the cortical button fixation coupled with an interference screw creates a strong, anatomic repair.

Surgical Technique

Place the patient in a supine position on the operating room table under general anesthesia with a tourniquet applied but not regularly inflated. Make a 4 cm transverse incision approximately 3 cm distal to the elbow flexion crease. Identify the lateral antebrachial cutaneous nerve and retract it laterally. Identify the retracted distal end of the biceps tendon and deliver it through the incision. Debride the end of the tendon to remove any degenerative or diseased tissue. The tendon should pass through a 7 mm sizing block to ensure that it will fit through an 8 mm bone tunnel. Whipstitch 2.5 cm of the distal end of the biceps tendon using a FiberLoop® suture, making sure to lock the sutures by making the final pass proximal to the previous pass. Cut the suture near the needle, ensuring adequate length suture limbs.





Thread one limb of suture through one side of the BicepsButton[™] implant and back through the opposite side. Thread the other suture limb through the button in the same manner, starting on the opposite side as the first suture limb. Make certain that the suture limbs are not tangled. Pull on each suture limb simultaneously to ensure that the button slides freely on the sutures.



With the elbow in full extension and full supination, expose the radial tuberosity and debride it of any remaining soft tissue. Drill a 3.2 mm bicortical tunnel through the radial tuberosity, aiming 30° ulnar to maximize the distance from the posterior interosseous nerve. Use fluoroscopy to confirm drill placement in the radial tuberosity.



Drill an 8 mm unicortical tunnel over the 3.2 mm guide pin and remove both the pin and reamer. Copiously irrigate the wound to remove bone dust and fragments.



Hold tension on all four suture limbs and insert the tip of the button inserter into the end of the BicepsButton implant. Maintain tension on the sutures and insert the implant through both cortices of the radial tuberosity. Flexing the forearm 20° to 30° can aid in button and tendon insertion. Use fluoroscopy to verify that the button is deployed through both cortices. Pull the lever back on the button inserter to release the button.



Pull on the free suture limbs to seat the button against the radius. Use fluoroscopy to confirm button deployment. Grasp each limb of suture and slowly apply tension to dock the tendon into the bone tunnel.



Once the tendon is fully seated, use a free needle to pass one limb through the tendon and tie a knot, using a knot pusher if necessary.



Load the 7 mm \times 10 mm PEEK tenodesis screw onto the tenodesis driver and load one suture limb through the driver. Insert the screw on the radial side of the bone tunnel, pushing the tendon more ulnar. The screw should sit flush with the anterior cortex.



Tie the suture limbs over the screw to complete the repair.

Ordering Information

Implants

Product Description	Item Number
Distal Biceps Repair Implant System (includes BicepsButton [™] implant, button inserter, FiberLoop [®] suture, 7 mm × 10 mm PEEK tenodesis screw, and BicepsButton drill pin)	AR- 2260
BicepsButton Implant, 12 mm	AR- 2261
#2 FiberLoop Suture, w/ straight needle	AR- 7234
PEEK Tenodesis Screw, 7 mm × 10 mm	AR- 1670PS

Required Instruments: Included in Bio-Tenodesis Screw System (AR-1675S)

Product Description	Item Number
Driver for Bio-Tenodesis Screws	AR- 1670DB
Tear-Drop Handle, w/ suture cleat	AR- 2001BT
Headed Reamer, 8 mm, cannulated	AR- 1408

Required Disposables

Product Description	Item Number
Button Inserter	AR- 2262
BicepsButton Drill Pin, 3.2 mm	AR- 2263
Nitinol Suture-Passing Wire	AR- 1255-18

Optional Disposable

Product Description	Item Number
Low-Profile Reamer, 8 mm	AR- 1408LP



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. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level and/or outcomes.

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