DISTAL BICEPS REPAIR
CLINICAL PRACTICE GUIDELINE

Progression is time and criterion-based, dependent on soft tissue healing, patient demographics and clinician evaluation. Contact Ohio State Sports Medicine at 614-293-2385 if questions arise.

Phase I: Weeks 0-6

Dr. Jones	• Patient to be immobilized in 90 degrees flexion with forearm supinated for 2 weeks post-op. After 2 weeks until 5-6 weeks, patient is allowed to unlock hinged brace three times a day for PROM exercises. PROM can be increased by 20 degrees extension every 4-5 days until full 0 degree extension is gained.
Dr. Bishop	• Patient is to perform no PROM until after first post-op visit. No bracing is used subsequently, so only PROM is to be performed until 6 weeks post-op • Patient can perform ball squeezes for edema control
At 2 Weeks	• PROM elbow per physician guidelines above, pronation and supination • PROM shoulder flexion, abduction, ER- avoid extension • Maintain active scapular stabilizers: retraction, clocks, PNF • Shoulder isometrics: extension, abduction, ER, IR, submaximal flexion
Goals	1. Protect repair 2. Minimal to no edema

Phase II: Weeks 4-6

	• PROM elbow flexion, supination • PROM shoulder flexion • AAROM shoulder abduction, ER, IR, extension progressing to AROM as tolerated by end of 6th week • Initiate scar tissue mobilizations as needed • Putty or finger web for grip strength
Goals	1. At least 75% elbow PROM 2. Tolerate increases in elbow extension 3. No edema or exacerbation with bicep isometrics and ROM

Phase III: Weeks 6-8

	• Discontinue brace at 6 weeks • Continue to gain elbow extension ROM • AAROM elbow flexion, supination • AAROM shoulder flexion • Initiate UBE forward direction, using vertical handholds • Prone scapular stabilizing exercises- retraction, ext, rows, Ts ○ Avoid loading the biceps with a weight during rows • Initiate submaximal elbow flexion and supination isometrics • Rhythmic stabilization- supine, multiangle • Side lying or Theraband ER/IR strengthening • Triceps and posterior deltoid strengthening
Goals	1. Tolerate forearm hanging dependently and extended out of sling 2. AAROM of elbow from extension to full flexion

Phase IV: Weeks 8-12

	• AROM elbow flexion, supination- start gravity assisted, progress to antigravity • AROM shoulder flexion • If lacking extension range, begin to push stretching into extension • Biceps PRE's initiated submaximally • Shoulder flexion PRE's initiated • Progress scapular stability • UE weight shifts on table
Goals	1. 5/5 shoulder flexion, abduction, ER, IR strength 2. Full ROM of elbow in supination and extension 3. No reactive effusion/exacerbation with biceps PRE's

Phase V: Weeks 12-20

	• Continue to strengthen biceps and surrounding musculature • Progress both WB and NWB strengthening activities ○ Integrate functional strengthening • Initiate light plyometrics- chest pass to rebounder, impulse
Goals	1. Demonstrate 5/5 with biceps strength testing 2. No reactive effusion with unrestricted ADLs

Phase VI: Weeks 20-24

	• If ROM is full and pain free, and patient tolerates PRE's, may begin free throwing and ballistic activities as well as unrestricted lifting

Criteria to begin throwing	• Good functional ROM and strength
	• 65% ER/IR isokinetic strength ratio
	• No less than 15% difference in functional testing compared bilaterally
	  • Single arm hop- Patient in single arm push-up position. Hops with that one UE to small step and then returns to starting position. This is performed 5 times as quickly as possible.
	  • Line test- Patient in push-up position with each hand on piece of tape. Upon start of test, patient removes one hand from tape, touches the opposite line, and then returns to starting piece of tape. This is performed with alternating hand touches. One test is maximal touches in 15 seconds.
	• Biodex/ Isokinetic testing for supination-pronation or elbow flexion-extension within 15% of uninvolved upper extremity

References

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