PECTORALIS MAJOR TENDON 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. Begin Physical Therapy 2 weeks Post Surgery. Tendon to Tendon and Muscle to Tendon repair: ROM progression gradually with goal of Full @ 14-16 weeks. Bone to Tendon repair goal of Full ROM at 12-14

Phase I: Weeks 2-4

Exercises	 Immobilize in sling per physician (Typically 6-8 weeks) Pendulums Wrist and elbow ROM Avoid active movement in all directions PROM: ER to 0 degrees in neutral Flex to 45 degrees Increase ER 5 degrees/wk, Flex 5-10 degrees/wk
Goals to Progress to Next Phase	Decrease pain Minimal to no edema

Phase II: Weeks 4-6

Exercises	 PROM: add abduction to 30 degrees increase 5 degrees/wk Scapular clocks, retraction, depression, protraction Scapular PNF Scapular mobility Begin table weight shifts for weight bearing through UEs Grades I-II (anterior, posterior, distraction) oscillatory joint mobilizations Stationary bike with immobilizer Submaximal Isometrics(except IR) @ 5 weeks
Goals to Progress to Next Phase	PROM :Flexion 75 degrees, Abduction 35 degrees, ER 0 degrees with 15 degrees of abduction

Phase III: Weeks 6-8

Exercises	 Initiate AAROM-progress to AROM as tolerated toward 8th week Can push PROM ER beyond 40 degrees Grade III sustained joint mobilizations for capsular restriction Isometrics-flexion, extension, abduction, ER, horizontal abduction Progress scapular strengthening Can progress weight bearing to quadruped, tripod (1UE +2LE) Avoid active adduction, horizontal adduction, IR
Goals to Progress to Next Phase	 75% PROM without pain AAROM flexion, abduction, ER, IR without scapular or upper trap substitution Tolerate PRE's for scapular stabilizers and shoulder complex No reactive effusion



Phase IV: Weeks 8-14

Exercises

- Gain full ROM through stretching and grade III mobilizations
- Active flexion, abduction, adduction strengthening
- AVOID: IR/flexion/horizontal adduction
- · Progress scapular strengthening and progress rotator cuff strengthening avoiding IR
- Begin submax pectoralis strengthening
- Wall pushups progressing to table pushups, uneven surfaces
- Dynamic stabilization, perturbations, weight bearing planks on hands
- · Active ER, horizontal abduction- not to end range

Goals to Progress to Next Phase

- Full AROM
- 2. Increased strength/ proprioception with exercise without an increase in symptoms

Phase V: Weeks 14-24

Exercises

- Progress scapular and rotator cuff strengthening-including IR
- Single arm pectoralis major strengthening- therabands then progress to dumbbell bench press with light weight/ high reps, avoiding a wide grasp, and end range ER/ABD.
- Pushups- avoiding humeral abduction beyond frontal plane
- Progress into UE plyometrics- eg. wall taps, chest pass (bilateral)
- PNF D1. D2

Goals to Progress to Next Phase

- 1. Tolerate high level of strengthening and plyometrics without an increase in symptoms
- 2. Tolerate/progress single arm strengthening of pec
- 3. No pain with any strengthening activities

Phase VI: Months 6-9

Exercises

- Discourage 1RM for bench press
- Prepare for return to sport
 - Use of One-Arm Hop Test as outcome measure for return to sport- reliable for comparing performance in injured and contralateral uninjured UEs

Goals to Progress to Return to Sport

1. Sufficient score on functional test- isokinetic or one arm hop test- to allow safe return to sport

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