

Physical Therapy Protocol Following Pec Major Repair

Shoulder Immobilizer: 4 weeks (Bryant) or 6 weeks (West, Najarian, Giuliani) (sleep included)

Post-Op Weeks 0-4:

Goals:

1. Minimize swelling and pain
2. Protect repair

Exercises:

1. Elbow and wrist ROM
2. Avoid active movement in all directions

Post-Op Weeks 4-6:

Goals:

1. 75-100% PROM, except ER (must limit to 30⁰)

Exercises:

1. Begin PROM (avoid abduction and ER)
2. Scapular clocks (retraction, depression, protraction)
3. Scapular PNF
4. Scapular mobility
5. Begin table weight shifts for weight bearing through UEs
6. Grades I-II (anterior, posterior, distraction) oscillatory joint mobs

Post-Op Weeks 6-8:

Goals:

1. 75-100% full AAROM without pain
2. AAROM flexion, abduction, ER, IR without scapular or upper trapezius substitution
3. Tolerate PREs for scapular stabilizer and shoulder complex
4. No reactive effusion

Exercises:

1. Initiate AAROM; progress to AROM as tolerated towards week 8
2. Okay to push PROM ER beyond 40⁰
3. Grade III sustained joint mobs for capsular restriction
4. Isometrics: flexion, extension, abduction, ER, horizontal abduction
5. Progress scapular strengthening
6. Can progress weight bearing to quadruped, tripod (1 arm + 2 legs)

*Avoid active adduction, horizontal adduction, IR

Post-Op Weeks 8-12:

Goals:

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

Exercises:

1. Gain full ROM through stretching and grade III mobs
2. Active flexion, abduction, adduction strengthening
*Avoid IR, flexion and horizontal adduction
4. Progress scapular strengthening and progress rotator cuff strengthening, avoiding IR
5. Begin submax pectoralis strengthening
6. Wall push-ups, progressing to table push-ups and then to uneven surfaces
7. Dynamic stabilization, perturbations, WB planks on hands
8. Active ER, horizontal abduction (NOT to end range)

Post-Op Months 3-6:

Goals:

1. Tolerate high level of strengthening and plyometrics without an increase in symptoms
2. Tolerate and progress to single arm strengthening of pectoralis
3. No pain with any strengthening exercises

Exercises:

1. Progress scapular and rotator cuff strengthening, including IR
2. Single arm pectoralis major strengthening:
*Begin with Thera band
*Progress to dumbbell bench press
3. Push-ups (avoiding humeral abduction beyond frontal plane)
4. Progress into UE plyometrics (wall taps, chest pass, etc)
5. PNF

Post-Op Months 6-9:

Goals:

1. Sufficient score on functional test (isokinetic or one arm hop) to allow safe return to sports

Exercises:

1. Discourage 1 repetition max for bench press
2. Prepare for return to sport

Criteria for release to sport(s):

1. ROM is symmetric and painless
2. Use of one arm hop test as outcome measure for return to sport is reliable for comparing performance between injured and contralateral uninjured UEs