

Pec Major Repair - Rehab Protocol

The purpose of this protocol is to provide a guideline for the postoperative rehabilitation course of a patient that has undergone a pec major repair. This protocol is not intended to be a substitute for one's clinical judgement regarding the progression of a patient's post-operative course based on their physical exam, progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient, they should consult with the referring surgeon.

Phase I (Days 1-14)

- Sling use at all times (except therapy) for first 6 wks.
- Decongestive massage
- Icing every other hour 15-20 minutes
- Wrist and elbow ROM particularly focusing on elbow extension
- Soft tissue massage to surrounding musculature if needed: biceps, upper trapezius, levator, etc.

Goals:

- Maintain integrity of repair
- Gradually increase passive ROM
- Diminish pain and inflammation
- Prevent muscular inhibition

Precautions:

- Maintain arm in sling, remove only for exercise for first 6 wks.
- No lifting of any objects
- No active abduction, forward elevation, or external rotation
- No supporting of body weight by hands
- Keep incision clean and dry

Phase II (Weeks 2-6)

- Begin Codman's (long arm distraction – prone arm hang over edge of bed if too guarded).
- Begin gradual passive forward flexion with arm adducted in supine position. Begin forward flexion to 45 degrees increasing 5-10 degrees per week.
- Begin passive ER with arm adducted to 0 degrees and increase 5-10 degrees per week (do not exceed 30 degrees ER)
- Begin passive abduction to 30 degrees progressing 5 degrees per week.
- Continue with soft tissue massage.
- Ensure full elbow supination and extension, if not, mobilize radio-ulnar joint.
- Scapular stabilization exercises

Goals:

- Gradually restore full passive ROM
- Do not overstress healing tissue
- Allow healing of soft tissue
- No excessive shoulder abduction, no external rotation past 30° with elbow at side
- Decrease pain and inflammation

Precautions:

- Avoid ER beyond 30 degrees with arm neutral. Strengthening exercises not started until 12 weeks post-op. Nothing behind the plane of the body until 12 weeks.

Phase III (Weeks 6-12)

- Sling can be discontinued at 6 weeks after surgery.
- Begin AAROM, AROM with forward elevation continue toward full forward elevation.
- Gradually increase external rotation toward full ROM
- Stretch/ensure scapular thoracic mobility, AC joint mobility.
- Scapular isometrics
- Gentle capsular stretching
- AROM: Glenohumeral retraction and depression during forward elevation (flexion) while supine
- May begin light isometrics with elbow flexed to side
- Goal at 12 weeks is full range of motion.

Goals: Full AROM, PROM, gradual restoration of shoulder muscular endurance.

Precautions:

Strengthening exercises not started until 12 weeks post-op. Nothing behind the plane of the body until 12 weeks.

Phase IV (Weeks 12-16)

- Begin side lying exercises, partial range of motion (side lying abduction, ER, IR, extension, flexion, adduction then gradually adding weight)
- Ensure rhomboids, lower and middle trap strong and able to withstand resistance without upper trap compensation
- Strengthen serratus anterior: prone prop, wall push up, etc.
- Rhythmic stabilization exercises in supine, side lying, etc.
- Overhead ball exercises
- Chest pass, light recreational throwing
- Standing flexion, adduction PRE's with very light free weights (begin with single planes and advance to combined motions)
- Can do resistive pulleys- light weight
- Check grip strength – address elbow and forearm with increased weight
- Continue soft tissue work/joint mobilization

Goal: Introduce muscular endurance with light weight and several repetitions without upper trap compensation.

Phase V (16-20 weeks)

- Seated: free weights pec fly, lat pull down (front grip to sternum – avoid excessive extension)
- Supine modified pec fly (elbows straight and bent) light resistance 1-2 pounds partial ranges, high repetitions.
- Military press free weights; bench press free weights (very light weight – 10-20 pounds)
- Partial pushups while body weight is supported on ball progressing to full pushups.
- Plyometrics against wall advancing as able
- Make sure full range of motion – continue soft tissue, joint mobilization as necessary.

Goal: Introduce dynamic/functional movement sport-specific

Phase VI (20-25 weeks)

Goal: Advance strengthening and sport specific training

Return to sport is generally allowed 6-9 months after injury.

Progression to sport activities when:

- 1) Full non-painful ROM
- 2) Satisfactory stability
- 3) Satisfactory strength (isokinetics)
- 4) No pain or tenderness

This protocol provides you with general guidelines for the rehabilitation of the patient undergoing pectoralis major tendon repair. Specific changes in the program will be made by the physician as appropriate for the individual patient.

NOTE: If you have any questions or concerns regarding any of the phases or advancements in this protocol, please do not hesitate to contact our office at 781-337-555

