

PEC MAJOR REPAIR POSTOPERATIVE REHABILITATION PROTOCOL

Phase I (Weeks 0-3): Sling immobilization, no shoulder ROM

- **Sling:** Sling immobilization for 2 weeks
- **Range of Motion:** Passive rest of shoulder for full 2 weeks
 - May perform active and passive elbow/wrist/hand ROM
- **Therapeutic Exercises:** No shoulder exercise until end of 2nd week
 - May perform elbow/wrist/hand exercises POD 1

Phase II (Weeks 3—6): Begin Passive ROM

- **Sling:** Continue sling (total 6 weeks)
- **Range of Motion:** Begin Passive ROM
 - External rotation to 0° (**Start week 3**) – Increasing 5° per week
 - Forward flexion to 45° (**Start week 3**) – Increasing 5---10° per week
 - **Week 3:** Begin abduction to 30° – increasing 5° per week
 - **Week 5:** Flexion to 75°, abduction to 35°, external rotation to 15° (at 0° of abduction)
- **Therapeutic Exercises**
 - Gentle isometrics to shoulder/arm **EXCEPT** pectoralis major (**week 3**)
 - Scapular isometric exercises (**week 3**)
 - Gentle submaximal isometrics to shoulder, elbow, hand, and wrist (**week 5**)
 - Active scapular isotonic exercises (**week 5**)

Phase III (Weeks 6—12): Begin Active ROM

- **Range of Motion:**
 - Continue PROM (without restrictions)—goal of full PROM by **week 12**
 - Begin Active/active assist shoulder limitations
- **Therapeutic Exercises**
 - Continue gentle sub maximal isometrics progressing to isotonic (**week 6**)
 - Begin sub maximal isometrics to pectoralis major in a shortened position progressing to neutral muscle tendon length (**avoid** isometrics in full elongated position) (**week 6**)
 - Progressive resistive exercises – isotonic machines (**week 8**)
 - Theraband exercises (**week 8**)
 - Scar mobilization techniques (**week 8**)
 - **Week 12:** Progress strengthening exercise: isotonic dumbbells, 2---handed sub maximal plyometrics

Phase IV (Weeks 12---16+): Gradual Return to Activity

- Gradual return to athletic activity as tolerated
- Continue to progress functional activities of the entire upper extremity
- Avoid bench press motion with greater than 50% of prior 1 repetition max (RM)
- Gradually work up to 50% of 1 RM over next month
- Stay at 50% or less of prior 1 RM until 6 months post op, then progress to full slowly