



## Post-Operative Therapy Total Shoulder Arthroplasty

**Note:** This pathway is designed to serve as a guide to rehabilitation. Indications for progression should be based on patient's complete operative procedure, functional capacity, and response to treatment.

### Rehabilitation Phase | Phase 1 – Protective | Post-Operative Weeks 0-6

Goals: Decrease pain and inflammation, gradually increase PROM, prevention of muscular inhibition and associated suite atrophy.

#### General Precautions

- No active IR/extension
- No passive ER > 40°, 0 to 4 weeks, if subscapularis repair is performed
- Keep incision clean and dry
- Sling wear and no active shoulder elevation for 4 weeks

#### Range of Motion

- Weeks 0 to 4: PROM, Supine AAROM no limits, as tolerated. Limit ER at side to 40 degrees for first 4 weeks
- Weeks 4 to 6: Gently start AROM and transition out of sling, may initiate Grade II/III capsular mobilization, in all ranges

#### Therapeutic Exercises

- Hand gripping and dexterity exercises, pronation/supination, as tolerated
- Initiate PROM elbow flexion/extension, progression to AROM exercises
- Introduction to AAROM pulleys/wand for flexion/extension, IR/ER
- Initiation of scapular retraction/depression exercises

#### Modalities

- Moist heat pre-treatment, if incision is well-healed, to avoid erythema/swelling
- Cryotherapy post-treatment recommended 3 to 4 times daily at home
- Ultrasound, interferential electrical stimulation, HVGS to control pain and swelling
- FES for muscle re-education

**Criteria for Progression:** Non-painful PROM, within prescribed guidelines.

### Rehabilitation Phase | Phase 2-Early Strengthening | Post-Operative Weeks 6-12

Goals: Decrease pain and inflammation and avoid overuse injuries, normalize strength and AROM, increase function capacity for daily activities. At 6 weeks, PROM should be equal to pre-op level.

### Range of Motion

- Expand PROM to 160+° elevation
- 60° ER in neutral abduction
- Total rotation mobility of 80° at 45° abduction
- 90° abduction with 40° each, IR/ER
- Considerations: Expand AROM with negative shrug sign
- Grade II-IV capsular mobs with emphasis on posteroinferior capsule

### Therapeutic Exercises

- Initiate AAROM, progress to AROM, all planes
- Initiate sub maximal, pain free isometrics, weeks 4 to 6, from neutral
- Progress to isotonic strengthening, week 6+, for elbow/RC, with high volume and low intensity, to avoid overuse phenomena
- Considerations: Initiate at neutral position, progressions made only without pain
- Scapular stabilizer strengthening
- Initiate with CKC exercises
- Scapular retraction, protraction, depression, shoulder shrugs

**Modalities:** continue PRN to control pain and inflammation

**Criteria for Progression:** Non-painful PROM, within prescribed guidelines.

### Rehabilitation Phase | Phase 3 | Post-Operative Weeks 12+

Goals: facilitate continued gradual return to functional activity, normalized shoulder strength and AROM, control localized pain and inflammation, enhance neuromuscular control.

#### Therapeutic Exercise:

- Home Maintenance Program Goals:
- Improve strength, power, endurance, neuromuscular control and proprioception
- Prepare for gradual and appropriate return to functional activities, including implementation of interval training, for recreation/sport activities, if cleared by physician
- ROM 2x per day, with frequency of 3 to 4 times weekly

#### Discharge Criteria

- Phase 3 progression criteria
- 4 to 4+/5 strength in all planes, involved shoulder
- Independence with understanding of precautions

- Evidence of independence/compliance with HEP

If shoulder is RC deficient, focus on increased stability and decreased mobility

**Return to Functional Activity – use as a guide, as progress allows:**

- Sedentary job: 3 weeks
- Stationary bike for exercise: 3 weeks
- Treadmill/walking aggressive: 6 weeks
- Driving: as early as 6 weeks
- Swimming: breaststroke 6 to 8 weeks, depending on progress
- Golf: 3 months