



Austin Cole, MD

Total Shoulder Arthroplasty Post-Operative Protocol

Phase I – Maximum Protection – Passive Range of Motion

Week 0-6

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

Therapeutic Exercises:

- Sling for 2 weeks
- Passive Range of Motion
 - No active IR/extension
 - No passive ER>40
- No active shoulder elevation for 4 weeks
- May initiate grade II/III capsular mobilizations, in all ranges at 4 weeks
- Hand gripping and dexterity exercises, pronation/supination, as tolerated
- PROM elbow flexion/extension, progressing to AROM exercises
- Scapular retraction/depression exercises
- Initiate submaximal isometrics at 4 weeks

Modalities:

- 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

Phase II – Early Strengthening

Week 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.

- 90° abduction with 40° each, IR/ER
 - AROM with no shoulder shrug sign
 - Grade II-IV capsular mobs with emphasis on posteroinferior capsule

Therapeutic Exercises:

- Initiate AAROM, progress to AROM, all planes
- Progress PROM to 160°+ of elevation, 60° ER in neutral abduction
 - Total rotational mobility of 80° at 45° abduction
- Progress to isotonic strengthening, weeks 6+, for elbow and rotator cuff
 - High volume and low intensity
 - Start in neutral position, progressions without pain
- Scapular stabilizer strengthening
 - Initiate CKC exercises
 - Scapular retraction, protraction, depression, shoulder shrugs

Modalities: Continue PRN to control pain and inflammation

Criteria for Progression: Non-painful AROM, within prescribed guidelines

Phase II – Progressive Strengthening

Week 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 recreational/sport activities, if cleared by physician
- ROM 3x 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