

# Post-Operative Protocol Total Shoulder Arthroplasty Therapy Protocol

Peter Hoepfner, MD, MBA Hand & Upper Extremity Surgery

### **Pre-Operative Visit:**

Patient to be seen for one visit pre-operatively, to be educated on HEP as described below. Patient should also be instructed not to support body weight on involved arm when transferring from one position to another, after surgery.

Phase I (1-5 weeks after surgery): Patien	its to be seen 2 times per week
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Goals: PROM flexion to 120° in supine, ER to 30° in supine with arm abducted to 45°, IR to torso

Precautions: No ER beyond 30° for first six weeks post-operatively

Start physical therapy on post-op day one. Instruct patients on use of immobilizer sling, as well as long term limitations of replacement.

After 3 weeks, patient may remove the sling at home, but should continue to wear the sling

while out in public. Instruct patient in:

- Axillary hygiene
- Pendulum exercises
- Finger, wrist and elbow AROM
- Scapular shrugs, retraction, circles and shoulder depression
- Limit PROM elevation to 120° in supine, ER to 30° with arm at side, and IR to torso
- Start pulley AAROM exercises in sitting for flexion and scaption
- Therapist-assisted sidelying and seated scapular isometrics
- When lying supine, patient should be instructed to keep a towel roll, or other small support under the surgical arm, so that the shoulder is not extended past neutral (first 6 weeks post-op)
- Patient allowed to begin stationary bike for cardiovascular fitness
- Patient will also perform regular icing for control of pain and inflammation

### Phase II (6-8 weeks after surgery): Patients seen in therapy 2-3 times per week

**Goals:** PROM flexion to 140° in supine, ER to 60° in supine with arm abducted to 45°, full scaption **Precautions:** No external rotation beyond 60° for the first eight weeks post-operatively.

- Continue wearing sling while out in public, and during extended periods of walking
  - Continue above exercises
  - Postural exercises: scapular retraction, scapular clock, etc.
  - Lawnmowers, "robbery," and table lifts
  - Initiate supine PROM for flexion, scaption, ER, and IR to belly
  - Submaximal (50% effort) shoulder isometrics (flexion, extension, adduction, abduction, external rotation, internal rotation) at side
  - Begin light (grade 1-2) glenohumeral mobilization for accessory joint mobility
  - Soft tissue mobilization as needed for cervicoscapular muscle tension
  - Supine AAROM cane exercises for scaption and ER at 45° abduction

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# Phase III (9-10 weeks after surgery): Patients seen in therapy 2 times per week or as needed Goals by end of week 10: Full supine PROM in all directions, IR to table.

Continue wearing sling only while out in busy areas, or during extended periods of walking

- Continue above exercises
- AAROM ER at 90° abduction in supine
- PROM horizontal adduction and gentle posterior capsule stretch
- Prone scapular retraction and shoulder extension to neutral
- Active shoulder IR/extension with arm hanging at side and elbow extended
- Gentle weight-bearing scapular setting exercises
- Sidelying ER AROM to neutral only

## Phase IV (11-12 weeks after surgery): Patients seen in therapy 1-2 times per week

Goals by week 12: Full IR ROM, increased periscapular strength

Precautions: No anti-gravity AROM into elevation

- Wall walking AAROM for flexion and abduction
- Sidelying ER AROM beyond neutral as tolerated
- Supine or quadruped AROM serratus punch
- Prone mid trap strengthening
- Resisted shoulder retraction and extension with pulleys or tubing
- Table lifts for scapular depression
- Apply e-stim for rhomboids/lats/infraspinatus if needed for adequate muscle recruitment. Consider a home e-stim unit if necessary.

# Phase V (13-16 weeks after surgery): Patients seen in therapy 1-2 times per week

Goals: Functional AROM without scapular substitution

- Towel stretch for IR ROM if needed
- Add light weights to prone scapular exercises
- Perform isometrics at full strength
- Prone low trap strengthening
- Add light weights for sidelying ER AROM past neutral
- Gravity-neutral AROM for flexion and abduction
- Elastic and pulley-resisted ER and IR
- Add standing AROM flexion, scaption and abduction. Only begin *once wall walking and gravity-neutral exercises achieve full ROM*.

#### Phase VI (6 months after surgery and beyond): Patient seen in therapy as needed

**Goals:** Full strength of rotator cuff, deltoid, and parascapular muscles. Full modified function for sport and work activities within limitations of replacement

- Progress AROM height only with proper shoulder mechanics maintained
- Ball circles on wall & plyometric exercises with ball
- Bodyblade
- Quadruped weight-bearing serratus anterior press
- PNF diagonal AROM
- Elastic band and pulley-resisted shoulder flexion, horizontal abduction/adduction, lat pulldowns
- Gradual return to weightlifting equipment for bilateral upper extremities with light weights

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