

## Total Shoulder Replacement Post-Surgical Rehabilitation Protocol

This is a protocol for individuals with an intact rotator cuff and no fractures (these individuals can be progressed more rapidly and aggressively than the tissue deficient group)

General considerations:

1. Wear sling for 4 weeks including sleep
2. **No active / resisted IR for 6 weeks**
3. **No active or passive extension for 8 weeks**
4. Begin Active ER (only at the side) early up to ROM limits (to promote relaxation of antagonistic internal rotators)
5. Issue a home ranger pulley for early self flexion in plane of scapula (unless posterior capsular plication performed)

### Posterior Capsular Plication Precautions:

Only follow  
if checked:

1. No overhead activities for 4 weeks
2. No active or passive extension for 4 weeks
3. No internal rotation PROM
4. Avoid passive flexion greater than 90 deg for 4 weeks
5. Provide support during flexion to prevent gravity assisted posterior humeral head translation ( perform passive flexion in s/l or prone)

### I. Phase One – Immediate Motion Phase (Week 0 – 4)

Goals: Increase passive ROM

Decrease pain

Minimize muscular atrophy and prevent rotator cuff shutdown

1. PROM
  - a. Flexion (Work to achieve 90° by week 2 and progress to 140° as tolerated)
  - b. ER 0 – 45° as long as patient tolerates it (at 30° of ABD)
  - c. IR 0 – 45° (at 30° of ABD) (Hand behind back reach to L5)
2. Pendulum exercises
3. AROM:
  - a. Elbow, wrist, and cervical
  - b. Pulley for flexion \*(immediately, but under guidance from therapist)
  - c. May do shoulder flexion (only) as pain allows
  - d. ER 0 to 45° (at 30° of ABD)
4. Grip and wrist strengthening

\* Developed and approved by Rolando Izquierdo, M.D. (Updated January 2020)

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5. **Scapular PNF** (Week 0 – 2 PROM, Week 2 – 4 AROM)
6. Isometrics (Day 7) ER, Ext, Flex, and ABD
7. AAROM (Week 2)
  - a. Cane exercises – Flex, ER
8. Scapular Stabilization
  - a. S/L scapular clocks
  - b. Seated scapular retractions
9. Scapulothoracic joint mobilizations as needed
10. Modalities such as Cryotherapy or Electrical Stimulation as needed
11. Patient can generally use arm to eat, read, etc. in front of body (anterior to plane of scapula) without pain; lift nothing heavier than coffee cup (1#)

## II. Phase Two – Active Motion Phase (Week 4 – 10)

Goals: Increase shoulder strength

**Achieve PROM 130 degrees flexion and 30 degrees ER by Week 4**

Decrease pain and inflammation

Increase functional activities

Normalize scapular motion and increase stabilization

1. Continue previous PROM and AAROM exercises
2. Pendulum exercises as needed
3. AROM
  - a. Supine flexion (full available range)
  - b. Semi-recumbent flexion (“gatching” at multiple levels per pt tolerance)**
  - c. Wall walking for flexion
  - d. Seated abduction (0° to 90°)
  - e. Sidelying ER (week 6)
  - f. Serratus punches
  - g. Prone Extension and Rows (**week 8**)
  - h. Theraband ER (**week 6**)
  - i. Theraband IR (**week 7 - 8**)
4. Biceps and triceps strengthening (dumbbell less than 5 lbs.)
5. Scapulothoracic strengthening
  - a. Rhythmic stabilization
  - b. Scapular PNF – resisted
6. Aerobic conditioning (i.e. bike)
7. UBE (week 6 to 8 do not allow elbow to extend beyond plane of body)
8. Joint mobilization (Grade I – III GH and scapulothoracic)

### **III. Phase III – Strengthening Phase (begins at 8 – 10 weeks)**

#### **\*Criteria for progressing to phase III\*:**

1. PROM: Flexion to about 140°, ER to about 55°, IR to about 60°
2. Strength 60 percent of uninvolved side or 3/5 for ER, IR, and ABD

#### Exercises

1. Continue to progress all elements from phase II
2. Continue theraband IR/ER: progress to 90 degrees ABD
3. Aggressive stretching exercises (doorway or table ER, static ER)
4. Dumbbell strengthening: add weight to all AROM exercises
5. Begin Supraspinatus strengthening (full to empty can)
6. Wall push-ups
7. Upright rows
8. PNF D2 progress from isometric holds to manual resisted
9. Begin functional progression for sports/activity specific tasks
10. Refer to physician regarding return to sports/work/high levels of function