



**Austin Cole, MD**

## **Reverse Total Shoulder Arthroplasty Post-Operative Protocol**

### **Phase I – Maximum Protection – Passive Range of Motion**

#### **Week 0 to 3:**

- Sling with abduction pillow for 2 weeks
  - Sling only weeks 2-4
- Passive range of motion
  - No extension past neutral
  - No combined adduction and internal rotation
  - No combined extension and internal rotation
  - Pendulums allowed until PT start (week 2)
- Elbow/wrist/hand AROM
- No AROM, lifting, sudden movements, over stretching
- No glenohumeral mobilizations—mechanics altered with RTSA

#### Goals

- Reduce inflammation
  - Ice 4-5x/day for 15-20 minutes
- Decrease pain
- Postural education

#### Exercise progression

- Ice and modalities to reduce pain and inflammation.
- Cervical range of motion and basic deep neck flexor activation (chin tucks).
- Low intensity cardiovascular exercise—stationary bike no UE support, walking

### **Phase II – Progressive Stretching and Active Motion**

#### **Weeks 3 to 6:**

#### Goals

- Postural education.
- PROM all planes.

#### Manual therapy

- STM – global shoulder and cervical. Scar tissue mobilization.
- Graded GH mobilizations, ST mobilizations.

#### Exercise progression

- Passive ROM
  - Scapular elevation to 120°
  - ER at 30° abduction to 30-45°
  - IR at 30° abduction to 30-45°
- Initiate AAROM at 4 weeks
  - Use a combination of wand, pulleys, wall walks or table slides to ensure compliance.
- Sub-maximal isometrics.
- Cervical range of motion as needed to maintain full mobility.
- Low to moderate cardiovascular work

### **Phase III – Strengthening Phase**

#### **Weeks 6 to 12:**

##### Goals

- Progress PROM/AAROM
- Normalize GH/ST arthrokinematics.
- Rotator cuff/scapular stability isotonic progression.

##### Exercise progression

- Continue with combined passive and active assisted program
  - Scapular elevation 130°+
  - ER and IR at 30° abduction to tolerance
- Initiate UBE
- Begin AROM and isotonic progression
  - Light periscapular and rotator cuff strengthening
  - Avoid hyperextension
- Internal rotation with sleeper stretch
- Serratus activation: Ceiling punch (weight of arm) - may initially need assistance.
- Scapular strengthening – prone scapular series (rows and I's) unweighted.
  - Emphasize scapular strengthening less than 90 degrees.
  - External rotation in neutral
- RC isotonic at 0 and 90 degrees as strength permits beginning at week 10
  - Add rows and front lat pulls.
  - Progressive resistance exercise: biceps and triceps.
- Advance prone series to include T's and Y's as tolerated.
- Supine progressing to standing PNF patterns, with resistance as appropriate.

### **Phase IV – Advanced Strengthening and Functional Phase**

#### **Weeks 12+:**

##### Manual therapy and Modalities

- Continue as needed

##### Exercise progression (PRE/PSE)

- Progress active range of motion in all planes
- Closed kinetic chain mobility exercises
- Proprioceptive activity: body blade, physoball
- Progression of periscapular activation with Theraband
- Progression of gentle GH IR and ER isotonic strengthening
- Progression of deltoid strengthening exercises
- Progression of elbow/wrist/hand exercises with resistance
  - Maintain high volume and gradually increase intensity levels

##### Return to Activity

- Sedentary Jog: 4-6 weeks
- Stationary bike for exercise: 3 weeks
- Treadmill/Walking (aggressive) for exercise: 9 weeks
  - Running: 12 weeks
- Driving: 6-9 weeks
- Swimming: breaststroke 9 weeks
- Tennis, golf: 12 weeks

##### Discharge

- HEP 3-4x/week
- Painless AROM grossly WNLs compared contralaterally
- MMT grade grossly 4/5 with flexion, abduction strength minimally; ideally 4+ to 5/5