

## **Physical Therapy Protocol: ANATOMIC TOTAL SHOULDER ARTHROPLASTY**

### **RESTRICTIONS:**

- NO external rotation past 20 degrees for 6 weeks
- NO active internal rotation (i.e. reaching behind back) for 6 weeks
- NO upper body weight exercises for 3 months

## **Phase I: Protect Subscap Repair and Passive Motion (Weeks 0–6)**

### **Primary Goals:**

- **Protect healing subscapularis tendon**
- Minimize pain and inflammation
- Prevent stiffness via controlled PROM
- Maintain mobility in distal joints

### **Precautions:**

- Sling with abduction pillow x3 weeks
- Sling alone x3 additional weeks
- **No external rotation past 20 degrees**
- **Do not reach behind back or push-out of a chair**

### **Interventions:**

#### **Pain & Edema Management**

- Cryotherapy 15–20 min, x6/day for 2 weeks. As needed following weeks
- Elevation on several pillows with hand above level of heart whenever feasible x2 weeks

#### **Shoulder Passive Range of Motion (PROM)**

- Gentle passive elevation in scapular plane starting at week 3
- Supine active assist in scapular plane starting at week 3

#### **Scapular and Distal Mobility**

- AROM for elbow, wrist, and hand
- Scapular retraction/depression exercises

## Criteria to Progress to Phase II

- Pain controlled ( $\leq 3/10$  at rest)
- Passive elevation  $\geq 120^\circ$ , ER  $\geq 30^\circ$
- No signs of subscapularis strain

## Phase II: Active Motion and Early Strengthening (Weeks 6–12)

### Primary Goals:

- Gradually transition from AAROM to AROM
- Gradually increase passive internal and external rotation as tolerated
- Protect subscapular repair while minimizing stiffness and atrophy

### Precautions:

- Avoid lifting  $>1-2$  lb
- **No upper body weighted exercises**

### Interventions:

#### Active-Assisted and Active Range of Motion

- Progress to AROM in gravity-reduced positions
- Supine  $\rightarrow$  seated AAROM with pulley
- Emphasize **isometric and eccentric control**

#### Scapular Stabilization

- Prone and standing scapular retraction/protraction control
- Rhomboid, lower trapezius, and serratus anterior activation
  - Exercises: wall slides with resistance

#### Early Strengthening

- Begin submaximal **isometrics**: flexion, extension, ER, abduction in neutral
- Gentle **theraband ER/IR** (at  $0^\circ$  abduction) once AROM pain-free
- Light deltoid activation (isotonics in supine progressing to seated)

## Criteria to Progress to Phase III

- Full, pain-free AROM
- No trapezial substitution or scapular dyskinesis
- Strength  $\geq 4/5$  for rotator cuff and scapular stabilizers

## **Phase III: Strengthening and Functional Return (Weeks 12–24)**

### **Primary Goals:**

- Restore full strength and endurance of rotator cuff and shoulder muscles
- Progress to overhead and functional activities
- Achieve pain-free performance of ADLs and recreational tasks

### **Precautions:**

- Avoid overloading with fatigue or poor form
- **No overhead weight training >20 lbs (e.g. shoulder press) for 6 months**

### **Interventions:**

#### **Progressive Strengthening**

- Resistance bands → free weights
- ER/IR at 0°, progress to 90° abduction positions
- Scapular plane elevation, prone horizontal abduction, bent-over rows
- Closed-chain progression: wall push-ups → stability ball → floor

#### **Endurance and Kinetic Chain Integration**

- High-rep, low-load endurance work (15–20 reps)
- Incorporate trunk and lower extremity strength for kinetic chain contribution

#### **Functional / Sport-Specific Drills**

- Simulated ADLs, overhead reach tasks
- Gradual return to recreational activities (golf, swimming, etc.)

**At 6 months no formal work or lifting restrictions. I do NOT place life-long weight restrictions on total shoulder arthroplasty patients.**