

## **Rehabilitation Protocol: REVERSE Total Shoulder Arthroplasty for Proximal Humerus Fracture**

### **Phase I: 0-4 weeks**

- Brace: Shoulder immobilizer at all times except during exercise & hygiene
- ROM:
  - > active/passive elbow/wrist/hand ROM
  - > Weeks 0-4: No ROM except gentle passive home exercises
- Avoid shoulder extension. The elbow should always be visible to the patient. A pillow should be placed behind the upper arm when sitting or in a recliner.
- Avoid combined IR/ADD/EXT (such as hand behind back)
- Avoid combined IR/ADD (such as reaching across chest)
- No active motion
- Weightbearing: Non-weightbearing
- Exercises:
  - Pendulums
  - Grip strengthening
  - Elbow/wrist/hand ROM
  - Active scapular retraction with arms in neutral position
  - Passive forward elevation in scapular plane to 90-120 max motion; ER in scapular plane to 30

### **Phase II: 4-8 weeks**

- Brace: Shoulder immobilizer at all times except during exercise & hygiene until week 6, then discontinue.
- Passive ROM:
  - Avoid shoulder extension. The elbow should always be visible to the patient. A pillow should be placed behind the upper arm when sitting or in a recliner.
  - Avoid combined IR/ADD/EXT (such as hand behind back)
  - Avoid combined IR/ADD (such as reaching across chest)
- Weightbearing: Non-weightbearing
- Exercises:
  - Begin using arm for light activities of daily living with elbow near side of body and arm in front of body
  - Submaximal isometrics pain free for all heads of deltoid (anterior, middle, posterior)
    - o For posterior: shoulder should not move into extension - arm remains anterior to the coronal plane
  - At 6 weeks: begin to place arm in balanced position of 90 deg elevation in supine; when able to hold this position with ease, may begin reverse pendulums clockwise and counterclockwise
  - Goals: achieve passive forward elevation to 120 and ER to 30; fire all heads of deltoid

### **Phase III: 8-12 weeks**

- Brace: None
- ROM:
  - Avoid forcing end ROM in any direction

- May initiate functional IR behind back gently
- Weightbearing: use in ADLs as tolerated; no heavy lifting
- Exercises:
  - Optimize PROM for elevation and ER in scapular plane - do not force
  - Recover AROM as close to PROM as possible
  - Forward elevation in scapular plane to active progression: supine to incline to vertical; short to long lever arm
  - Balanced position long lever arm AROM
  - Active ER/IR with arm at side
  - Scapular retraction with light band resistance
  - Wall walking and/or pulleys
  - No upper body ergometer

**Phase IV:**  
**12+ weeks**

- Brace: None
- ROM: as tolerated
- Weightbearing: advance as tolerated - avoid heavy lifting and heavy pushing. Limit overhead sports.
- Exercises:
  - Add light hand weights for deltoid up to and not to exceed 3 lbs for anterior and posterior with long arm lift against gravity; elbow bent to 90 deg for abduction in scapular plane
  - Theraband progression for extension to hip with scapular depression/retraction
  - Theraband progression for serratus anterior punches in spine; avoid wall, incline or prone press-ups for serratus anterior
  - End range stretching gently without forceful overpressure in all planes (elevation in scapular plane, ER in scapular plane, functional IR) with stretching done for life as part of a daily routine
  - No upper body ergometer
  - Develop home maintenance program