



## Dr. Hagan Postoperative Total Shoulder Rehabilitation Protocol

### Overview

#### Phase I: 1<sup>st</sup> Week

*Phase 1 includes early passive or gentle active assisted motion, which helps to prevent adhesions. These early movements are often accomplished in the supine position and include assisted forward elevation and assisted external rotation with the arm at the side, and then, in a progressive fashion over the first six weeks: pendulum exercises, assisted extension, pulley exercises, assisted internal rotation posterior to the trunk, and assisted external rotation with the arms clasped behind the neck. During the third week, isometric exercises are initiated for the external rotators, internal rotators, extensors, flexors, and abductors.*

- For primary shoulder arthroplasty patients, exercises can begin and include the following:
  - Pendulum exercises, wall walk exercises for forward elevation, rotation limited to 0 degrees.
- For revision shoulder arthroplasty patients, the arm may be kept in immobilization for 2-4 weeks

#### Phase II: Weeks 2-4

- After suture or staple removal, patients may begin to use tub or pool
- Exercises may include the following: (2-3 times per day)
  - Pendulum exercises, wall walk exercises
  - Passive ROM for shoulders only
  - Flexion encouraged (goal is maximum of 140 degrees)
    - May use pulley, wall walk, cane exercises to assist forward flexion
  - Allow external rotation to 20 degrees
  - Allow internal rotation to abdomen
  - Allow abduction to 70 degrees
  - Avoid shoulder extension beyond neutral
  - Avoid active internal rotation
- Allow active use of elbow and hand while keeping shoulder immobilized
- Use arm immobilizer at all times with few exceptions. It may be removed when bathing, performing exercises, and when sitting at rest

#### Phase III: Weeks 5-8

*This phase is a more active exercise program and is commenced at four to six weeks postoperatively. The program includes supine forward elevation, forward elevation in the standing position assisted by the other extremity.*

- Wean use of sling
- Begin isometric strengthening for scapular stabilizers, glenohumeral joint (deltoid) and elbow
- Use weight of arms as only resistance
- Gradually increase ROM with passive, active and active-assisted motion in all planes
- Goals: Flexion (180 degrees), Abduction (90 degrees), Internal rotation to perineum, External rotation to 40 degrees

#### Phase IV: Weeks 8-12

- Begin resistance strengthening at lowest level tolerated. Increase gradually
- After 12 weeks, resume activity as tolerated when strength has reached 50% normal strength
- Full healing expected 6-9 months. Maximum improvement at 12 months

\*If the surgery required bone grafting, fracture repair, or was performed through a superior approach, strengthening exercises are not started until 6 weeks post op.