

**Matthew Varacallo MD**

**Physical therapy / rehab protocols**

**Shoulder arthroscopy / Subacromial decompression / Biceps Tenotomy**

*\*Note: if distal clavicle excision (DCE) is also performed, avoid horizontal/cross-body adduction movements/exercises for 6-8 weeks postop*

**Phase I – Passive Range of Motion Phase (1-2 weeks)**

Goals:

- Minimize shoulder pain and inflammatory response
- Achieve gradual restoration of passive range of motion (PROM)
- Enhance/ensure adequate scapular function

Precautions/Patient Education:

- No active range of motion (AROM) of the elbow
- No excessive external rotation range of motion (ROM) / stretching. Stop when you feel the first end feel.
- Use of a sling for discomfort, wean out of the sling as discomfort allows.
- Ace wrap or tubi-grip around upper arm/bicep – (from hand to upper arm for 2 weeks)
- No lifting of objects with operative forearm/shoulder
- Keep incisions clean and dry
- Patient education regarding limited use of upper extremity despite the potential lack of or minimal pain or other symptoms

Activity:

- Shoulder pendulum hang exercise
- PROM elbow flexion/extension and forearm supination/pronation
- AROM wrist/hand
- Begin pain free shoulder PROM all planes of motion
- Scapular retraction and clock exercises for scapular mobility progressed to scapular isometric exercises.
- Ball squeezes
- Sleep with sling as needed to support operative shoulder, place a towel under the elbow to prevent shoulder hyperextension
- Frequent cryotherapy for pain and inflammation
- Patient education regarding postural awareness, joint protection, positioning, hygiene, etc.
- May return to computer-based work.

Milestones to progress to phase II:

- Appropriate healing of the surgical incision
- Full PROM of shoulder and elbow
- Completion of phase I activities without pain or difficulty

## **Phase II – Active Range of Motion Phase (2-4 weeks)**

### Goals:

- Minimize shoulder pain and inflammatory response
- Discharge use of sling
- Achieve gradual restoration of AROM
- Begin light waist level functional activities

### Precautions:

- No lifting with affected upper extremity

### Activity:

- Progress shoulder PROM to active assisted range of motion (AAROM) and AROM all planes to tolerance
- Lawn chair progression for shoulder
- Active elbow flexion/extension and forearm supination/pronation
- Glenohumeral, scapulothoracic, and trunk joint mobilizations as indicated (Grade I - IV) when ROM is significantly less than expected. Mobilizations should be done in directions of limited motion and only until adequate ROM is gained.
- Begin incorporating posterior capsular stretching as indicated
- Cross body adduction stretch
- Side lying internal rotation stretch (sleeper stretch)
- Continued Cryotherapy for pain and inflammation
- Continued patient education: posture, joint protection, positioning, hygiene, etc.

### Milestones to progress to phase III:

- Full AROM of shoulder and elbow
- Appropriate scapular posture at rest and dynamic scapular control with ROM and functional activities
- Completion of phase II activities without pain or difficulty

## **Phase III - Strengthening Phase (4-6 weeks)**

### Goals:

- Normalize strength, endurance, neuromuscular control
- Return to chest level full functional activities

### Precautions:

- Do not perform strengthening or functional activities in a given plane until the patient has near full ROM and strength in that plane of movement
- Patient education regarding a gradual increase to shoulder level activities

## Activity:

- Continue A/PROM of shoulder and elbow as needed/indicated
- Initiate biceps curls with light resistance, progress as tolerated
- Initiate resisted supination/pronation
- Begin rhythmic stabilization drills
- External rotation (ER) / Internal Rotation (IR) in the scapular plane
- Flexion/extension and abduction/adduction at various angles of elevation
- Initiate balanced strengthening program
  - Initially in low dynamic positions
  - Gain muscular endurance with high repetition of 30-50, low resistance 1-3 lbs)
  - Exercises should be progressive in terms of muscle demand / intensity, shoulder elevation, and stress on the anterior joint capsule
  - Nearly full elevation in the scapula plane should be achieved before beginning elevation in other planes
  - All activities should be pain free and without compensatory/substitution patterns
  - Exercises should consist of both open and closed chain activities
  - No heavy lifting should be performed at this time
    - Initiate full can scapular plane raises with good mechanics
    - Initiate ER strengthening using exercise tubing at 30° of abduction (use towel roll)
    - Initiate side-lying ER with towel roll
    - Initiate manual resistance ER supine in scapular plane (light resistance)
    - Initiate prone rowing at 30/45/90 degrees of abduction to neutral arm position
    - Begin subscapularis strengthening to focus on both upper and lower fiber segments
- Push up plus (wall, counter, knees on the floor, floor)
- Cross body diagonals with resistive tubing
- IR resistive band (0, 45, 90 degrees of abduction)
- Forward punch
- Continued cryotherapy for pain and inflammation as needed

## Milestones to progress to phase IV:

- Appropriate rotator cuff and scapular muscular performance for chest level activities
- Completion of phase III activities without pain or difficulty

## **Phase IV – Advanced Strengthening Phase (6 weeks and beyond)**

### Goals:

- Continue stretching and PROM as needed/indicated
- Maintain full non-painful AROM
- Return to full strenuous work activities
- Return to full recreational activities

### Precautions:

- Avoid excessive anterior capsule stress
- With weightlifting, avoid military press and wide grip bench press

### Activity:

- Continue all exercises listed above ○ Progress to isotonic strengthening if patient demonstrates no compensatory strategies, is not painful, and has no residual soreness
- Strengthening overhead if ROM and strength below 90 degree elevation is good
- Continue shoulder stretching and strengthening at least four times per week
- Progressive return to upper extremity weightlifting program emphasizing the larger, primary upper extremity muscles (deltoid, latissimus dorsi, pectoralis major) ○ Start with relatively light weight and high repetitions (15-25)
- May initiate pre-injury level activities and vigorous sports if appropriate and cleared by MD

### Milestones to return to overhead work and sport activities:

- Clearance from MD
- No complaints of pain
- Adequate ROM, strength and endurance of rotator cuff and scapular musculature for task completion
- Compliance with continued home exercise program