

## Posterior and Posterior Inferior Capsular Shift Protocol

### Protection Phase (0-6 weeks):

#### Precautions:

- Postoperative brace (typically gunslinger type) in 30-45° abduction, 15° external rotation for 4-6 weeks
- Brace to be worn at all times (even when sleeping) with the exception of exercise activity and bathing
- No overhead activity
- No flexion for first 6 weeks

#### Goals:

- Allow/promote healing of repaired posterior capsule
- Initiate early protected ROM
- Retard muscular atrophy
- Decrease pain and inflammation

### **Weeks 0-4**

#### Exercises:

- Gripping exercises with putty
- Active elbow flexion-extension and pronation-supination
- Active ROM cervical spine
- Passive ROM progressing to active-assisted ROM of GH joint
  - External rotation to 25-30° at 30-45° of abduction
  - Internal rotation to 15-25° at 30-45° of abduction (begin week three)
- Submaximal pain free shoulder isometrics in the plane of the scapula
  - Flexion
  - Abduction
  - Extension
  - External rotation
  - **Avoid IR at this point**

Note: In general all exercises begin with one set of 10 repetitions and should increase by one set of 10 repetitions daily as tolerated to five sets of 10 repetitions.

Cryotherapy: Ice after exercises for 20 minutes. Ice up to 20 minutes per hour to control pain and swelling.

## Weeks 4-6

### Goals:

- Gradual increase in ROM
- Normalize arthrokinematics
- Improve strength
- Decrease pain and inflammation

### Range of motion exercises:

- Active-assisted exercises of GH joint
- External rotation in multiple planes of shoulder abduction (up to 90°)
- Shoulder flexion to tolerance
- Elevation in the plane of the scapula to tolerance
- Shoulder abduction (pure) to 90°
- Internal rotation 35° at 45° of abduction
- Pulleys (AAROM)
- Shoulder elevation in the plane of the scapula to tolerance
- Shoulder flexion to tolerance
- **Gentle** self-capsular stretches as needed/indicated

### Gentle Joint Mobilization (Grades I-II) to Reestablish Normal Arthrokinematics:

- Scapulothoracic joint
- GH joint (avoid posterior glides)
- SC joint
- AC joint

### AROM Exercises:

- Active abduction to 90°
- Active external rotation to 90°
- IR to 35°

### Strengthening Exercises:

- Elbow/wrist progressive resistive exercise program

### Conditioning Program For:

- Trunk
- Lower extremities
- Cardiovascular endurance

### Decrease Pain and Inflammation:

- Ice and modalities prn

### Sling:

- Discontinue 4-6 weeks post surgery depending on milestones met

## **Phase 2: Intermediate Phase (Weeks 6-12)**

### Goals:

- Full, nonpainful ROM at week eight (patient will not have full IR at this time)
- Normalize arthrokinematics
- Enhance strength
- Improve neuromuscular control

### **Weeks 6-9**

#### Range of Motion Exercises:

- A/AROM to AROM as appropriate
- External rotation to tolerance
- Shoulder abduction to tolerance
- Shoulder flexion to tolerance
- Pulleys: flexion, abduction, and elevation in the plane of the scapula to tolerance
- Internal rotation to no more than 40°

#### Joint Mobilization:

- Continue as above as indicated

#### Strengthening Exercises:

- Initiate IR isometrics in slight ER (do not perform past neutral)
- Initiate theraband for internal and external rotation at 0° abduction (IR later in the phase)
- Initiate isotonic dumbbell program
- Shoulder abduction
- Shoulder flexion
- Latissimus dorsi
- Rhomboids
- Biceps curl
- Triceps kick-out over table
- Push-ups into wall (serratus anterior)

### **Weeks 10-12**

- Continue all exercises listed above

#### Initiate:

- Active internal rotation at 90° GH abduction with elbow at 90° flexion
- Dumbbell supraspinatus
- Theraband exercises for rhomboids, latissimus dorsi, biceps, and triceps
- Progressive push-ups

### **Phase 3: Dynamic Strengthening Program (Weeks 12-18)**

Criteria for Progression to Phase 3:

- Full, nonpainful ROM
- No complaints of pain/tenderness
- Strength 70% of contralateral side

#### **Weeks 13-15**

Goals:

- Enhance strength, power, and endurance
- Enhance neuromuscular control

*Emphasis of Phase 3:*

- High-speed/high-energy strengthening exercises
- Eccentric training
- Diagonal patterns

Exercises:

- Continue internal and external rotation theraband exercises at 0° abduction (arm at side)
- Theraband for rhomboids
- Theraband for latissimus dorsi
- Theraband for a biceps and triceps
- Continue dumbbell exercises for supraspinatus and deltoid
- Progressive serratus anterior push-up-anterior flexion
- Continue trunk and lower extremity strengthening and conditioning exercises
- Continue self-capsular stretches

Progress to:

- Isotonic shoulder strengthening exercises isolating the rotator cuff-including sidelying external rotation, prone arm raises at 0, 90 & 120°, prone external rotation, and internal rotation at 0 & 90°; progress to standing strengthening exercise once able to tolerate resistance against gravity without substitution
- Progress scapulothoracic/upper back musculature strengthening exercises
- Dynamic stabilization exercises
- Proprioceptive Neuromuscular Facilitation (PNF) exercises

### **Phase 4: Return to Activity Phase (Weeks 21-28)**

Criteria for Progression to Phase 4:

- Full ROM
- No pain or tenderness
- Satisfactory clinical examination

Goal:

- Progressively increase activities to prepare patient for unrestricted functional return

Exercises:

- Continue theraband, and dumbbell exercises outlined in phase 3
- Continue ROM exercises
- Initiate interval programs between weeks 28 and 32 (if patient is a recreational athlete)
- Continue strengthening exercises for scapular and rotator cuff muscles
- Progress to functional activities needed for ADL's and sport
- Thrower's ten program (see protocol)