

## Large Rotator Cuff Repair Protocol

### Preoperative

#### Goals

1. Full Range of motion
2. Normal Scapular/GH/Clavicular glides
3. 0 to minimal edema
4. Improve Peri-Scapular muscle strength
5. Independent in HEP

#### Treatment:

1. Modalities to reduce inflammation/pain(Vasopneumatic)
2. Grade 2, 3 mobilization GH, Scapula, Clavicle
3. ROM exercises Passive/Active Assist/Active (pendulums, cane exercises, pulley, wall slides)
4. Peri-Scapular muscle PRE's(scapular retraction, gentle Theraband for retraction, extension, adduction, abduction)
5. Education in HEP/edema control

### Post-operative Day of Surgery

#### Goal:

1. Control edema
2. Initiate elbow, wrist and hand and shoulder shrug exercises for early ROM
3. Use immobilizer all the time except for performing exercises, squeeze exercise ball as much as possible

Ultrasling: will be used for approximately 6 weeks per the surgeon's instruction. Okay to remove for treatment

### PHASE I (Week 0-2)

- Shoulder
- Phase 1 home exercises
    - wrist, elbow and hand exercises
    - squeeze exercise ball as much as possible
  - Begin addressing restrictions of the upper quarter
    - Cervical spine stretching: Upper Trapezius, Levator Scapulae, Scalenes
    - Thoracic Spine and costovertebral joint mobilizations
    - Scapular glides
    - Posture training
  - Modalities for control of pain and inflammation
  - Grad I-II joint mobilizations
- Maintain cardiovascular health using walking, exercise bike

### PHASE Ia (Week 2-4)

- Shoulder
- Modalities for control of pain and inflammation
  - Grad I-II joint mobilizations
  - PROM supine scapular plane
  - Codman pendulum exercises (AP direction, circular, progress to HA and HABD)

- Table slides in the scapular plane
  - Scapular mobilization
  - Flex: to tolerance 0 – 90 degrees
  - Abduction: 0 – 90 degrees
  - ER: 0 -30 degrees at modified neutral (do not stretch ER/IR)
  - consider initiating pool where available
  - **Extension and Horizontal Adduction: Avoid**
- Scapula - AROM scapular shrugs, scapular retraction, scapular depression, PNF Diagonals
- Elbow/Hand - AROM Flex/ext in neutral and hand strengthening
- Maintain cardiovascular health using walking, exercise bike
- Continue work on the upper quadrant to reduce restrictions to proper physiologic movement

#### PHASE Ib(Week 4-6)

- Shoulder
- Modalities for control of pain and inflammation
  - Grad I-II joint mobilizations PA/Inferior
  - PROM (supine)
  - Initiate, Shoulder pulleys, Progress table slides. All in Scapular plane  
Normal Scapulohumeral Rhythm must exist to decrease impingement
  - Initiate Dowel exercises
  - Flex: to tolerance 0 – 120 degrees
  - Abduction: maintain at 90 degrees until ER increases to 45 degrees then progress abduction to 120 degrees
  - ER: 0 – 45 degrees at modified neutral. Slowly increase abduction position during ER/IR to 80 – 90 degrees by 4 weeks. No aggressive stretching.
  - **Be VERY cautious with IR to avoid tension on the Infraspinatus if repaired.**
  - **Ext and Horizontal Adduction: Avoid**
- Scapula - AROM scapular shrugs, scapular retraction, scapular depression, PNF Diagonals
- Elbow/hand - Sub-max isometrics elbow flex/ext in neutral shoulder position
- Maintain cardiovascular health using walking, exercise bike
- LE and trunk exercises to be initiated (no bouncing)
- Continue work on the upper quadrant to reduce restrictions to proper physiologic movement

#### PHASE Ic(Week 6-8)

- Modalities for control of pain and inflammation
  - Grad II-III joint mobilizations
  - PROM (supine)
  - Flex: to tolerance 0 – 180 degrees or equal to uninvolved side
  - Abduction: 150 – 180 degrees w/ deviation toward scapular plane
  - ER: 70 – 90 degrees; IR: 40 – 60 degrees
  - Ext: 30 degrees without stretching, **Horizontal Adduction: Avoid**
  - Supine stabilization exercises for the scapular muscles
- Scapula
- AROM scapular shrugs, scapular retraction, scapular depression
  - Initiate AROM exs in scapular plane and IR and ER (**No Resistance**)
    - i. Focus is on quality uncompensated movement
- Elbow/Hand - Sub-maximal Isometric elbow flex/ext in neutral shoulder position  
progress to gentle Isotonics:
- 2-5 lb. BC curls and yellow Theraband Tricep pull-downs
- Maintain cardiovascular health using walking, exercise bike
- LE and trunk exercises to be progressed (no bouncing)
- Continue work on the upper quadrant to reduce restrictions to proper physiologic movement

### **PHASE II(Week 8-10)**

- Modalities for control of pain and inflammation
  - Grad II-III joint mobilizations
  - Full ROM is allowed for PROM, AAROM, and AROM. Focus on proper technique and progress as tolerated.
  - Initiation of isometric strengthening all planes. Contractions should not elicit symptoms
  - No resistance UBE\* (control shoulder flexion to below 75 degrees)
  - Progress stabilization exercises to standing for the scapular muscles
  - Scapula - Peri-Scapular PRE's(Rhomboids, Middle/Lower Trapezius, Lats, Serratus Anterior etc.)
  - Elbow/Hand - Progress to 6 lb curls and increase resistance w/ triceps pull-downs
- Maintain cardiovascular health using walking, exercise bike  
LE and trunk exercises to be progressed (no bouncing)

### **PHASE III(Week 10 – 14)**

- Modalities for control of pain and inflammation
  - Grad II-III joint mobilizations
  - Initiate light Rotator Cuff PRE's at 0 degrees abduction w/ Theraband and progress to moderate resistance
  - Progression of standing stabilization exercises
  - Progress Bicep/Tricep/Peri-Scapular strength/conditioning
  - Add PNF movements D1 and D2 flexion/Extension AROM and progress to light T-band resistances
- Maintain cardiovascular health using walking, exercise bike, consider light jogging  
LE and trunk exercises to be progressed

### **PHASE IIII(Week 14-18)**

- Modalities for control of pain and inflammation
  - Grad II-III joint mobilizations
  - Moderate Rotator Cuff PRE's at 30 degrees abduction w/ Theraband and progress to high resistance at 60 degrees abduction
  - Progression of standing stabilization exercises
  - Progress Bicep/Tricep/Peri-Scapular strength/conditioning
  - Begin closed chain stability exercises
  - Progress resistances of PNF patterned strengthening
- Maintain cardiovascular health using walking, exercise bike, jogging, bleachers  
LE and trunk exercises to be progressed

### **PHASE V(Week 18-24)**

- Modalities for control of pain and inflammation
- Grad II-III joint mobilizations
- High resistance Rotator Cuff PRE's at 90 degrees abduction w/ Theraband
- Begin plyometric exercises
- Progression of standing stabilization exercises
- Progress Bicep/Tricep/Peri-Scapular strength/conditioning
- Progress UBE/closed chain stability exercises
- Add gym exercises
- Initiate sport specific training/job related tasks

## Interval throwing program

\* UBE is not to be used with Dr. Auerbach patients