

## Rotator Cuff Repair Protocol

**\*\*\*NO ROTATOR CUFF STRENGTHENING FOR AT LEAST 10 WEEKS\*\*\***

### Phase I – Immediate postoperative phase

- Goals:** Protect the anatomic repair  
Prevent negative effects of immobilization  
Promote dynamic stability and scapular stabilization  
Diminish pain and inflammation  
Large and Massive repairs will generally be 3-4 weeks behind small to medium repairs for the first 8-10 weeks

### Weeks 0-4

- Sling for 4-6 weeks, may remove pillow at 3-4 weeks
- May hold all ROM and PT for 4 weeks if massive repair – check with Dr. McClung
- Shoulder shrugs/squeezes – scapula movement only, not arm
- Elbow/hand ROM
- Hand gripping exercises
- Cervical ROM, lateral flexion
- Passive ROM exercise:
  - Flexion/scaption to tolerance – PROM, NOT stretching (no more than 125° week 1)
  - ER to tolerance in 45 & 60 degrees of abduction in scapular plane (towel roll or wedge under arm), IR in 45 degrees of abduction in scapular plane – Gentle PROM, NOT stretching – limit ROM to 45° unless history of stiff shoulder
  - Cryotherapy, modalities as indicated
- Codman's exercises – perform closed chain with hand on a swiss ball or on a table with a cloth if patient cannot relax or if arm is heavy (Roll the ball with arm straight- use ball for support, do not weight bear through arm), or perform with the elbow bent, hand touching shoulder, patient uses opposite upper extremity with contact at involved elbow to passively raise, lower and perform circles with involved arm

### Week 2

- Hold PROM until 4 weeks if massive repair (2+ anchors or 1 anchor with margin convergence and poor tissue quality)
- PROM for small tears: flex/scaption to tolerance (up to 145°), ER in 45 & 60° abd in the scapular plane to 55°, IR in 45° abd scapular plane to 55°.
- Submaximal isometrics for shoulder musculature for small tears – shoulder in scapular plane with towel roll between arm and body, elbow flexed 90° - flexion, extension, external rotation,

internal rotation, adduction and abduction (no abduction isometric with open repair), bicep isometric

- Gentle oscillation – grade I-II mobilization of Glenohumeral and Scapulothoracic joint
- Scapular protraction, retraction, depression manual resistive exercise in sidely with a towel roll between arm and body, hand contacts on scapula
- Wand exercises supine on towel roll – ER/IR scapular plane
- Pulley flexion/scaption, table slide flexion – start standing and progress to seated (start at week 3 if massive repair)

#### Week 3-4: (Day 15-28)

- Hold PROM until 4 weeks if massive repair (2+ anchors or 1 anchor with margin convergence and poor tissue quality)
- Continue PROM for small tears – add caudal glide as needed.
  - Flexion and scaption to tolerance
  - ER to tolerance in 45 to 90° abduction with arm on towel roll (less stress on supraspinatus in 45 to 90 degrees than at 0 degrees of abduction) up to 75-80°
  - **Perform ER only in 45° abduction for subscapularis tear – avoid all other ER for 6 weeks**
  - IR to tolerance in 45° - 60° abduction scapular plane (arm on towel roll or wedge) to 60° – caution with excessive IR
  - A/AROM supine flexion/D2 with wand, A/AROM with support of therapist – start with elbow flexed.
  - Balance point exercises – passively raise the arm to 90°, and have the patient move the arm from 90 to 110° back and forth in a protracted position
  - Table top exercises: scapular protraction/retraction, elevation/depression (ball roll or towel slide). Weight of arm supported by ball or table
  - Lower trapezius table lift – (standing with table at side, push back on table with palm and stick chest out)
  - Low row/lower trap table press isometric – stand with table at side, push back on table with palm and lift chest (sternal lift/scapular retraction)
  - Active punches (arm passively raised 90° by therapist, then punches (protraction & retraction), then therapist passively lowers arm)
  - Week 3 active assistive ER in sidely (with assist of therapist) – towel between arm and body – unless subscap repair was done
  - Week 4 progress sidely ER with towel roll between arm and body to active
  - Week 4 add prone extension, row by the side

#### Week 5-6: (29-42)

- UBE for ROM only (slowly, no resistance)
- Continue PROM – continue ER stretching in 45 to 90°, progress IR stretching to 60-90 degrees as tolerated on a towel roll. Add stretches into ER in neutral adduction week 6 (arm by side) Continue inferior glides /posterior glides if needed. Goal full ROM
- Add crossbody stretch week 5
- Week 6 add sidely IR stretch – painfree
- Wall push up plus exercise (serratus – elbows stay straight)
- Supine active flexion/scaption/D2
- Wall washes: incorporate squat with scapular retraction, to overhead arm with protraction as knees/hips extend (small/medium tears only)
- Lawnmower exercises: start with trunk flexion, arms extended across body, then come to upright, scapular retraction, slight ER
- Week 6: Prone scapular exercises: horizontal abduction palm down, flexion at 135 degree angle

- Progress push up plus exercise – scapula motion only, keep elbows straight to quadruped, table over ball

### **Phase II – Intermediate Phase: Moderate Protection Phase**

- Goals:** Gradually restore full ROM and capsular mobility  
 Restore muscular strength and balance, normalize scapulohumeral rhythm  
 Preserve the integrity of the surgical repair

**\*Patient must be able to elevate the arm without shoulder or scapular hiking before they start rotator cuff strengthening. If unable – continue scapular and stabilizing exercises**

#### **Week 7-8: (Day 43-56)**

- Continue PROM all angles to tolerance. Progress ROM to functional demands (ie goal total passive motion for a pitcher 180° combined ER/IR)
- Week 7 add prone chicken wing stretch week 8-9 (towel roll under anterior shoulder); hangs, lat pull stretch if elevation limited (monitor impingement)
- Active standing flexion, scaption, and abduction to 90° week 6. Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonic; if unable, continue humeral head control exercises and scapular stabilization
- Standing flexion/scaption/abduction/D2 – progress to 160° flex/scaption, 90° abd
- Standing punches/retractions several planes (forward/lateral), with step lunges

#### **Week 9-10: (Day 57-70)**

- Progress standing flexion, scaption D2 ROM as tolerated to 160° without hiking, abduction to 90° - progress to resistance.
- If good scapular stabilization, full ROM and a one anchor small repair, then may start strengthening at 10 weeks with Dr. McClung approval.
- Un-supported rhythmic stabilization in various degrees of elevation, and in the scapular plane ER/IR in open and closed chain
- Add prone row with ER. Progress to weight as tolerated

### **Phase III – Minimal Protection Phase**

- Goals:** Establish and maintain full functional ROM and capsular mobility  
 Improve muscular strength, power and endurance  
 Initiate functional activities

#### **Criteria to enter Phase III:**

1. Full non-painful ROM
2. Good scapulohumeral rhythm

#### **Week 10-12: (Day 71-84)**

- Begin manuals only when 3# can be lifted throughout the ROM: supine D2, sidely ER, prone horizontal abduction palm down, thumb up, thumb down, flexion at 145°, row
- Week 10: Bodyblade 90° flexion, scaption, ER/IR at 0°, Impulse ER/IR at 0°
- Isokinetics scapular plane (180, 240, 300°/second)
- Start specific rotator cuff strengthening for large to massive tears at 12 weeks only if scapulohumeral rhythm good and good scapular stabilization with full ROM

#### **Week 15-16: (Day 99-112)**

- Progress rotator cuff strengthening
- Initiate plyometric program with good scapular stabilization, full ROM and at least 4/5 strength for large to massive tears
- Initiate interval sport/throwing program, progress golf program if attached criteria are met and MD clears after 16 weeks.

### **Criteria to Initiate an Interval Sport Program**

1. Good tolerance to overhead motion - full functional painfree ROM
2. Negative impingement signs
3. 85-90% strength of external and internal rotation compared to the opposite UE on Biodex
4. External/Internal strength ratio at least 62-65%
5. Microfet criteria met (at least low average)

1. Completed interval sport program without symptoms.
2. 5/5 MMT all shoulder and scapular groups..
3. Able to perform all daily activities without restrictions.
4. Clearance from MD.

**Generally no return to contact sports for at least 6 months.**

**Please call with questions or concerns**

**Dr. Glen McClung MD**

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