# SMALL-MEDIUM ROTATOR CUFF
## CLINICAL REPAIR GUIDELINE

### Background
The rotator cuff is responsible for stabilization and active movement of the glenohumeral joint. An acute or overuse injury may cause the rotator cuff to be injured and varying widths of tears may cause increased pain and dysfunction of the shoulder joint. A small size rotator cuff tear is defined as a tear <1cm, medium 1-3cm. Rotator cuff repair is performed, either arthroscopically or via mini-open procedure, by suturing the torn tendon to the humerus.

### Disclaimer
Progression is time and criterion-based, dependent on soft tissue healing, patient demographics and clinician evaluation. Contact Ohio State Sports Medicine at 614-293-2385 if questions arise.

### Summary of Recommendations
- Do not perform PROM into pain
- Physical Therapy will be initiated between weeks 2-4 based on physician preference

### Risk Factors
- Avoid AROM before 6 weeks
- Correct scapular substitution with AA/AROM
- Smoking
- Postural considerations should be addressed

### Precautions
- Sling use for 6 weeks
- Start physical therapy **Week 2-4**
- Continue post-operative home exercises until starting physical therapy
- No behind back stretching x 12 weeks  
  **Subscapularis Repair (12 weeks)**
- No ER past 30 degrees
- No cross body adduction
- No active IR or IR behind back
- No supporting of body weight on affected side (i.e. pushing up from chair)

### Manual Therapy
- **Week 2-4**: caudal GH mobilizations, PROM flexion and external rotation only, soft tissue mobilization as appropriate, hand/wrist/elbow ROM exercises
- **Week >4**: PROM (flexion, external rotation, internal rotation, abduction), soft tissue and joint mobilization as appropriate

### Corrective Interventions
- Pain and edema control modalities
- Manual for glenohumeral and scapular mobility and shoulder ROM
- Therapeutic exercise and neuromuscular re-education for UE strength, control and postural stability
- Therapeutic activity for return to work simulations to increase strength and endurance
- Sport-specific activity training

### Outcome Testing
- Disability of Arm, Shoulder, Hand (DASH)
- Quick DASH

### Criteria for Discharge
- Full AROM with no scapular substitution
- 5/5 RTC strength
- 65-70% IR/ER isokinetic testing
Phase 1: Protection

**WEEK 2-6**

**ROM**

- Continue PROM
  - Begin PROM in abduction per patient tolerance
  - Shoulder joint mobilizations (grade II-III) – posterior and caudal
  - Scapular mobilizations
  - Pectoralis minor flexibility
    - Supine postural stretch
  - Begin wand exercises in a seated position
    - Shoulder external rotation
    - Shoulder flexion if not contraindicated

**Strengthening**

- Begin isotonic scapular retraction/protraction
  - Supine serratus punches
  - PNF patterns in sidelying (scapular clock)
  - Sitting retraction
  - Begin manual resistance scapular stabilization (late phase)
    - Scap Squeezes, extension with light resistance

**Modalities**

- Ice and pain modalities as indicated

**Goals for Progression to Next Phase**

1. Decrease pain
2. Full PROM supine
3. Sleeping through the night
4. Normal posture

Phase 2

**WEEK 6-8**

**ROM**

- AAROM per patient tolerance - all motions, adding abduction, IR, horizontal abduction (maintain subscapularis precautions)
- Ball on wall, UE swiss ball mobility – IR/ER
- Towel wipes on table – any direction

**Strengthening**

- Initiate sub-max/50% effort strengthening
  - Isometric flexion, extension, abduction, ER, IR
  - Isometric lower trap
  - Dynamic isometric walk-outs
- Closed-chain stability – elbow extension with hand on ball performing oscillations
- Progress scapular neuromuscular strengthening

**WEEK 8-10**

**ROM**

- AROM per patient tolerance; avoid scapular substitution

**Strengthening**

- UBE light resistance
- Begin prone exercise program below shoulder level
  - Extension, rows
- Begin closed chain UE activities
  - Towel wipes on wall – horizontal, diagonal and vertical
  - Serratus punches
  - Quadraped walk-outs
- Proprioception exercise
  - Supine ABC’s
  - Ball on wall

**Goals for Progression to Next Phase**

1. Full AROM with no scapular substitution
2. No reactive inflammation with strengthening
3. Return to full ADLs pain free
## Phase 3

### WEEK 10-12

#### Strengthening
- UBE moderate resistance
- Light T-band exercises
  - Shoulder IR/ER
  - Horizontal abduction/adduction
  - Diagonal patterns
- Progress prone exercise program
  - Row
  - Shoulder Extension
  - Horizontal Abduction – T exercise position
  - Lower Trap – Y exercise position
- Begin rhythmic stabilization exercises supine, starting at balance point position (90-100 degrees of elevation); progress to side lying, prone, standing

#### Goals for Progression to Next Phase
1. Full active ROM
2. No trapezius substitution
3. No reactive inflammation with strengthening

### WEEK 12-16

#### Strengthening
- Progress prone exercise program
- Progressive Dumbbell Program – emphasis on high reps/low weight
  - Scaption
  - Diagonal patterns
  - Bent row
  - Prone Retraction with ER
- Functional strengthening
  - Functional positions with eccentrics loads
- Progress closed chain UE strengthening
  - Push up with a plus
  - Swiss ball activities
  - Plank BOSU weight shifts
  - Trunk and lower extremity strengthening
  - Begin short toss and overhead endurance activities per physician release

#### Goals for Progression to Next Phase
1. Full AROM with no scapular substitution between weeks 10-12
2. 5/5 rotator cuff strength
3. 65-70% IR/ER isokinetic testing
Phase 4 – Return to Sport / Activity

Goal is to return to sport at 6 months

<table>
<thead>
<tr>
<th>4-6 MONTHS</th>
<th>ROM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Emphasis on posterior capsule stretching</td>
</tr>
<tr>
<td></td>
<td>• General stretching/flexibility program (pectoralis, biceps, upper trapezius, etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strengthening</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Progress T-band exercises</td>
</tr>
<tr>
<td>• Begin Diagonal Patterns</td>
</tr>
<tr>
<td>• Progress prone exercise program with weight</td>
</tr>
<tr>
<td>• Row</td>
</tr>
<tr>
<td>• Shoulder Extension</td>
</tr>
<tr>
<td>• Horizontal Abduction – T exercise position</td>
</tr>
<tr>
<td>• Lower Trap – Y exercise position</td>
</tr>
<tr>
<td>• Progress Dumbbell Program with weight</td>
</tr>
<tr>
<td>• Scaption</td>
</tr>
<tr>
<td>• Diagonal patterns</td>
</tr>
<tr>
<td>• Bent row</td>
</tr>
<tr>
<td>• Prone Retraction with ER</td>
</tr>
<tr>
<td>• Functional eccentric strengthening</td>
</tr>
<tr>
<td>• Progress closed chain UE strengthening</td>
</tr>
<tr>
<td>• Push up with a plus</td>
</tr>
<tr>
<td>• Swiss ball activities</td>
</tr>
<tr>
<td>• Trunk and lower-extremity strengthening</td>
</tr>
<tr>
<td>• Initiation of throwing progression (See OSU Sports Med Throwing Program)</td>
</tr>
<tr>
<td>• Continuation of functional UE/LE strengthening and endurance activity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goals to Return to Sport</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Completion of throwing progression</td>
</tr>
<tr>
<td>• No reactive effusion, pain and/or instability</td>
</tr>
<tr>
<td>• 65-70% IR/ER isokinetic testing</td>
</tr>
</tbody>
</table>

**Authors:** Mitch Salsbery, PT, DPT, SCS and Adam Ingle PT, DPT, SCS  
**Reviewers:** Grant Jones, MD and Julie Bishop, MD  
**Completion date:** December 2017

**References**


Kim YS, Chung SW, Kim JY, Ok JH, Park I, Oh JH. Is early passive motion exercise necessary


