

 <p><b>Mount Sinai West</b></p>	<p><b>Aruna Seneviratne MD</b></p> <p>Tel: (212) 636 8290 Fax: (212) 636 3102</p> <p><a href="http://www.replayortho.com">www.replayortho.com</a></p>	<p>Department of Orthopaedic Surgery 425 West 59<sup>th</sup> Street, 5<sup>th</sup> floor New York, NY 10019</p>
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## Arthroscopic Rotator Cuff Repair Protocol:

The intent of this protocol is to provide the therapist and patient with guidelines for the post-operative rehabilitation course after arthroscopic SLAP repair. This protocol is based on a review of the best available scientific studies regarding shoulder rehabilitation. It is by no means intended to serve as a substitute for one's clinical decision making regarding the progression of a patient's post-operative course. It should serve as a guideline based on the individual's physical exam/findings, progress to date, and the absence of post-operative complications. If the therapist requires assistance in the progression of a post-operative patient they should consult with Dr. Seneviratne.

**Progression to the next phase based on Clinical Criteria and/or Time Frames as Appropriate.**

### Phase I – Immediate Post Surgical (Weeks 1-4):

Goals: Maintain / protect integrity of repair

Gradually increase passive range of motion (PROM)

Diminish pain and inflammation

Prevent muscular inhibition

Become independent with activities of daily living with modifications

Precautions:

Maintain arm in abduction sling / brace, remove only for exercise

No active range of motion (AROM) of shoulder

No abduction and external rotation

No lifting of objects

No shoulder motion behind back

No excessive stretching or sudden movements

No supporting of any weight

No lifting of body weight by hands

Keep incision clean and dry

Criteria for progression to the next phase (II):

Passive forward flexion to at least 125 degrees

Passive external rotation (ER) in scapular plane to at least 75 degrees

Passive internal rotation (IR) in scapular plane to at least 75 degrees

Passive Abduction to at least 90 degrees in the scapular plane

#### DAYS 1 TO 6:

- Abduction brace/sling
- Pendulum exercises
- Finger, wrist, and elbow AROM

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- Begin scapula musculature isometrics / sets; cervical ROM
- Cryotherapy for pain and inflammation
  - Day 1-2: as much as possible (20 minutes of every hour)
  - Day 3-6: post activity, or for pain
- Sleeping in abduction sling
- Patient Education: posture, joint protection, positioning, hygiene, etc.

### **DAYS 7 TO 28:**

- Continue use of abduction sling / brace
- Pendulum exercises
- Begin passive ROM to tolerance (these should be done supine and should be pain free)
  - Flexion to 90 degrees
  - ER to 20 degrees only with the arm at the side
  - IR to body/chest
    - Continue Elbow, wrist, and finger AROM / resisted
    - Cryotherapy as needed for pain control and inflammation
    - May resume general conditioning program – walking, stationary bicycle, etc.
    - Aquatherapy / pool therapy may begin at 3 weeks postop

### **Phase II – Protection / Active motion (weeks 4 - 6):**

Goals: Allow healing of soft tissue  
Do not overstress healing tissue  
Gradually restore full passive ROM (week 4-6)  
Decrease pain and inflammation

#### Precautions:

No lifting  
No supporting of body weight by hands and arms  
No sudden jerking motions  
No excessive behind the back movements  
Avoid upper extremity bike or upper extremity ergometer at all times.

Criteria for progression to the next phase (III):  
Full active range of motion

### **WEEK 4-6:**

- Continue use of sling/brace full time until end of week 6
- Between weeks 4 and 6 may use sling/brace for comfort only
- Discontinue sling/ brace at end of week 6
- Initiate active assisted range of motion (AAROM) flexion in supine position

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- Progressive passive ROM until approximately Full ROM at Week 4-6.  
-Gentle Scapular/glenohumeral joint mobilization as indicated to regain full passive ROM
- Initiate prone rowing to neutral arm position
- Continue cryotherapy as needed
- May use heat prior to ROM exercises
- May use pool (aquatherapy) for light active ROM exercises
- Ice after exercise

## **Phase I – Immediate Post Surgical (Weeks 1-6):**

Goals: Maintain / protect integrity of repair

Gradually increase passive range of motion (PROM)

Diminish pain and inflammation

Prevent muscular inhibition

Become independent with activities of daily living with modifications

Precautions:

Maintain arm in abduction sling / brace, remove only for exercise

No active range of motion (AROM) of shoulder

No lifting of objects

No shoulder motion behind back

No excessive stretching or sudden movements

No supporting of any weight

No lifting of body weight by hands

Keep incision clean and dry

Criteria for progression to the next phase (II):

Passive forward flexion to at least 125 degrees

Passive external rotation (ER) in scapular plane to at least 75 degrees

Passive internal rotation (IR) in scapular plane to at least 75 degrees

Passive Abduction to at least 90 degrees in the scapular plane

### **DAYS 1 TO 6:**

- Abduction brace/sling
- Pendulum exercises
- Finger, wrist, and elbow AROM
- Begin scapula musculature isometrics / sets; cervical ROM
- Cryotherapy for pain and inflammation  
-Day 1-2: as much as possible (20 minutes of every hour)  
-Day 3-6: post activity, or for pain

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- Sleeping in abduction sling
- Patient Education: posture, joint protection, positioning, hygiene, etc.

### **DAYS 7 TO 28:**

- Continue use of abduction sling / brace
- Pendulum exercises
- Begin passive ROM to tolerance (these should be done supine and should be pain free)
  - Flexion to 90 degrees
  - ER in scapular plane to at least 35 degrees
  - IR to body/chest
    - Continue Elbow, wrist, and finger AROM / resisted
    - Cryotherapy as needed for pain control and inflammation
    - May resume general conditioning program – walking, stationary bicycle, etc.
    - Aquatherapy / pool therapy may begin at 3 weeks postop

### **Phase II – Protection / Active motion (weeks 5 - 10):**

Goals: Allow healing of soft tissue  
Do not overstress healing tissue  
Gradually restore full passive ROM (week 4-5)  
Decrease pain and inflammation

#### Precautions:

- No lifting
- No supporting of body weight by hands and arms
- No sudden jerking motions
- No excessive behind the back movements
- Avoid upper extremity bike or upper extremity ergometer at all times.

Criteria for progression to the next phase (III):

- Full active range of motion

### **WEEK 5-6:**

- Continue use of sling/brace full time until end of week 6
- Between weeks 4 and 6 may use sling/brace for comfort only
- Discontinue sling/ brace at end of week 6
- Initiate active assisted range of motion (AAROM) flexion in supine position
- Progressive passive ROM until approximately Full ROM at Week 4-5.
  - Gentle Scapular/glenohumeral joint mobilization as indicated to regain full passive ROM
- Initiate prone rowing to neutral arm position

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- Continue cryotherapy as needed
- May use heat prior to ROM exercises
- May use pool (aquatherapy) for light active ROM exercises
- Ice after exercise

### **Weeks 6-8**

- Continue active and active assisted ROM and stretching exercises
- Begin rotator cuff isometrics
- Continue periscapular exercises
- Initiate active ROM exercises
  - flexion scapular plane
  - abduction
  - external rotation
  - internal rotation

## **Phase III – Early strengthening (weeks 10-14):**

Goals: Full active ROM (week 10-12)

Maintain full passive ROM

Dynamic shoulder stability

### **Gradual restoration of shoulder strength, power, and endurance**

Optimize neuromuscular control

Gradual return to functional activities

Precautions:

No heavy lifting of objects (no heavier than 5 lbs.)

No sudden lifting or pushing activities

No sudden jerking motions

No overhead lifting

Avoid upper extremity bike or upper extremity ergometer at all times.

Criteria for progression to the next phase (IV):

Able to tolerate the progression to low-level functional activities

Demonstrates return of strength/dynamic shoulder stability

Re-establish dynamic shoulder stability

Demonstrates adequate strength and dynamic stability for progression to higher demanding work/sport specific activities.

### **WEEK 10:**

- Continue stretching and passive ROM (as needed)
- Dynamic stabilization exercises

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- Initiate strengthening program
  - External rotation (ER)/Internal rotation (IR) with therabands/sport cord/tubing
  - ER side-lying (lateral decubitus)
  - Lateral raises\*
  - Full can in scapular plane\* (avoid empty can abduction exercises at all times)
  - Prone rowing
  - Prone horizontal abduction
  - Prone extension
  - Elbow flexion
  - Elbow extension

\*Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonic;

if unable, continue glenohumeral joint exercises

#### **WEEK 12:**

- Continue all exercise listed above
- Initiate light functional activities as Dr. Seneviratne permits

#### **WEEK 14:**

- Continue all exercise listed above
- Progress to fundamental shoulder exercises

### **Phase IV – Advanced strengthening (weeks 16-22):**

Goals: Maintain full non-painful active ROM

Advance conditioning exercises for enhanced functional use

Improve muscular strength, power, and endurance

Gradual return to full functional activities

#### **WEEK 16:**

- Continue ROM and self-capsular stretching for ROM maintenance
- Continue progression of strengthening
- Advance proprioceptive, neuromuscular activities
- Light sports (golf chipping/putting, tennis ground strokes), if doing well

#### **WEEK 20:**

- Continue strengthening and stretching
- Continue stretching, if motion is tight
- May initiate interval sport program (i.e. golf, doubles tennis, etc.), if appropriate.