

# Arthroscopic Rotator Cuff Repair – Rehab Protocol

# Type III Medium (2-3 cm) to Type IV Large (> 3-5 cm)

General time frames are given for reference, with individual patients progressing at different rates. Progression should be dictated by time and achievement of each phase. If at any time the patient is experiencing advanced or unusual pain with the recommended exercises, the protocol may be slowed down or backed up. Please instruct the patient to call the orthopedic office for further pain medication management issues. Medium to Large Rotator Cuff repairs can take 6-8 weeks for the tendon to effectively bond to the bone. As a result, please be mindful to avoid "pinch" pain into the barrier of ROM during each phase of motion.

\*\*\*For Subscapularis repairs, please hold all ROM ER to 0 degrees until 6 weeks post-operative.\*\*\*

Precautions (weeks 1-6)

- No active range of motion (AROM) of shoulder
- Maintain arm in abduction pillow immobilizer/ sling (as directed by physician, there may be a variance), removing only for exercise, dressing, and bathing. Please sleep with the pillow brace ON.
   Patient may take off the immobilizer/ sling if inactive and sitting with arm supported in a chair/ recliner, while awake.
- No lifting more than 1-2 lb's at the involved side's elbow/ wrist.
- No shoulder motion into extension/ behind back (past 0 deg)
- No excessive stretching or sudden movements.
- No supporting of body weight by involved side's hand.
- Keep incision clean and dry.

# Phase I- Immediate Post-surgical Phase (days 1-14)

#### Goals

- Maintain integrity of the repair
- Gradually increase PROM
- Diminish pain and inflammation
- Prevent muscular inhibition

## Days 1-6

- Cryotherapy for pain and inflammation; ice 15-20 minutes every hour
- AROM exercises: Elbow, wrist, hand gripping, peri-scapular, and peri-cervical
- Gentle pendulum exercises
- Passive ROM:
  - Flexion to tolerance (non-painful PROM)
  - o ER/IR in scapular plane at 45 degrees of abduction (non-painful PROM)
- Gentle shoulder mobilizations (grade I)
- Patient may lightly walk/ ride stationary bike. Avoid impact aerobic activity.

# Criteria for Progression:

- 7 days post-operative
- PROM Flexion 100 deg/ER 20 deg/IR 30 deg

# Days 7-14

- Continue use of abduction pillow brace/sling through week 6 (unless directed otherwise by physician)
- Cryotherapy: continue use of ice for pain control (at least 6-7 times daily)
- Continue AROM exercises: elbow, wrist, hand gripping, peri-scapular, and peri-cervical.
- Continue pendulum exercises
- Passive ROM:
  - Flexion to tolerance (without pinch pain)
  - Scaption/ Abduction up to 80 degrees (without pinch pain)
  - o ER in scapular plane at 15-20 deg of abduction to 20-25 degrees
  - o IR in scapular plane at 15-20 deg of abduction to 30-35 degrees
- Initiate light rhythmic stabilization ER/IR at 45 degrees abduction
- Gentle Shoulder Mobilizations (grade I)
- Patient may lightly walk/ ride stationary bike. Avoid impact aerobic activity.

# Criteria for Progression:

- 14 days post-operative
- PROM Flexion 115 deg/80 deg Abd/ER 25 deg/IR 35 deg

# Phase II- Protection Phase (day 15- week 6)

#### Goals

- Allow healing of soft tissue
- Do not overstress healing tissue
- Gradually restore full passive ROM (week 4-5)
- Re-establish dynamic shoulder stability
- Decrease pain and inflammation

- Continue use of sling or brace (physician or therapist will determine when to discontinue)
- Cryotherapy: continue use of ice for pain control (at least 3-4 times daily)
- PROM to tolerance
  - o Flexion to 140-155 degrees
  - o ER at 45 degrees abduction to at least 45 degrees
  - o IR at 45 degrees abduction to at least 45 degrees
- Initiate Wand AAROM to tolerance
  - Flexion (continue use of arm support)
  - ER/IR in scapular plane at 45 degrees abduction
  - ER/IR at 45 degrees of abduction
- Dynamic stabilization drills
  - Light rhythmic stabilization drills
  - ER/IR in scapular plane at 45 deg abduction
  - o Flexion/extension rhythmic stabilization at 90 degrees flexion
- Initiate submaximal pain-free glenohumeral isometric contractions with elbow bent into: F/E/Abd/ER/IR.
- Initiate scapular isometrics
- Gentle shoulder mobilizations grade I-II
- Patient may lightly walk/ ride stationary bike. Avoid impact aerobic activity.

# Criteria for Progression:

- 21 days post-operative
- PROM Flexion 155 deg/ 90 deg Abd/ ER 45 deg/ IR 45 deg

## Weeks 4-5

- Patient may exhibit full PROM by week 5-6
- Cryotherapy: continue use of ice for pain control (at 3-4 times daily)
- Continue all exercises listed above
- Initiate ER/IR strengthening with band/ tubing at 0 degrees abduction (use towel roll) at week 5
- Initiate manual resistance ER supine in scapular plane (light resistance)
- Initiate prone rowing to neutral arm position and shoulder extension to 0 deg
- Initiate isotonic ER strengthening exercises
- May use heat prior to ROM exercises
- May use pool for light AROM exercises
- Rhythmic stabilization exercises (flexion 45, 90, 125 degrees) (ER/IR)
- Gentle shoulder mobilizations grade II

## Weeks 5-6

- May use heat prior to exercises
- Continue AAROM and stretching exercises for movements that are not full
- Shoulder flexion
- Initiate IR/ER up to 90 degrees abduction (avoid pinch pain)

- Initiate AROM shoulder exercises week 6
- Shoulder flexion at week 6
- Initiate shoulder abduction/ scaption at week 8
- Initiate prone shoulder F and prone horizontal abduction (bent elbow)
- Initiate isotonic elbow flexion strengthening beyond 2 lb's.
- Progress isotonic strengthening exercise program
- ER tubing
- Side-lying IR
- Prone rowing
- Prone shoulder extension to 0 degrees
- Isotonic elbow F
- Gentle shoulder mobilizations grade II-III

#### **Precautions**

- No heavy lifting of objects
- No excessive behind the back movements
- No supporting of body weight by hands and arms
- No sudden jerking motions

# Phase III- Intermediate Phase (weeks 7-14)

#### Goals

- Full AROM (week 8-10)
- Maintain full passive ROM
- Dynamic shoulder stability
- Gradual restoration of shoulder strength
- Gradual return to functional activities

#### Week 7

- Continue stretching and PROM (as needed to maintain full ROM)
- Continue dynamic stabilization drills
- Progress prone, isometric, and band/tubing strengthening program
- ER/IR tubing
- ER side-lying
- Lateral raises\*\*
- Full can in scapular plane\*\*
- Prone shoulder exercises with extension beyond 0 deg
- Isotonic Elbow flexion/ extension strengthening beyond 3 lb's, as able.
- Shoulder mobilizations grade II-III

<sup>\*\*</sup>patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonics; if unable, continue glenohumeral joint exercises

#### Weeks 8-9

- Continue all exercise listed above
- If physician permits, may initiate light functional activities
- Initiation of more progressive stretching behind back/neck/ sleeper stretches into ER/IR.
- Progress shoulder mobilizations grade III-IV

#### Week 10

- Continue all exercises listed above
- Progress to fundamental shoulder exercises
- Therapist may initiate isotonic resistance in stance, against gravity (1 lb weight) during flexion and abduction\*\*

\*\*if non painful normal motion is exhibited

Progress shoulder mobilizations grade III-IV

#### Weeks 11-14

- Progress all exercises
- Continue ROM and flexibility exercises
- Progress strengthening program (increase 1lb /10 days \*non-painful)

# Phase IV- Advanced Strengthening Phase (weeks 15-22)

## Goals

- Maintain full non-painful ROM
- Enhance functional use of UE
- Improve muscular strength and power
- Gradual return to functional activities

## Week 15

- Continue ROM and stretching to maintain full ROM
- Self capsular stretches
- Progress shoulder strengthening exercises
- Fundamental shoulder exercises
- Initiate interval golf program (if appropriate)

#### Weeks 20-22

- Continue all exercises listed above
- Progress golf program to playing golf (if appropriate)
- Initiate interval tennis program (if appropriate)
- May initiate swimming

# Phase V- Return to Activity Phase (weeks 23-36)

#### Goals

- Gradual return to strenuous work activities
- Gradual return to recreational sport activities

## Week 23

- Continue fundamental exercise program (at least 4 times weekly)
- Continue stretching, if motion is tight
- Continue progression to sport participation

#### **LOCATIONS**

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