### **BRIGHAM AND WOMEN'S HOSPITAL**



A Teaching Affiliate of Harvard Medical School 75 Francis St., Boston, Massachusetts 02115

# **Department of Rehabilitation Services**

Physical Therapy

# **Arthroscopic Rotator Cuff Repair Protocol:**

The intent of this protocol is to provide the clinician with a guideline of the post-operative rehabilitation course of a patient that has undergone an arthroscopic assisted/mini-open rotator cuff repair. It is no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring Surgeon.

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

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

#### Goals:

- Maintain integrity of repair
- Diminish pain and inflammation
- Prevent muscular inhibition
- Independent with ADL's with modifications while maintaining the integrity of the repair.

#### **Precautions:**

- No active range of motion (AROM) of Shoulder
- Maintain arm in sling, remove only for exercise
- No lifting of objects
- No shoulder motion behind back
- No excessive stretching or sudden movements
- No supporting of body weight by hands
- Keep incision clean and dry

# Criteria for progression to the next phase (II):

- Passive range of motion (PROM) Flexion to at least 100 degrees
- PROM ER in scapular plane to at least 45 degrees
- PROM IR in scapular plane to at least 45 degrees
- PROM Abduction to at least 90 degrees in the scapular plane

#### **Arthroscopic Rotator Cuff Repair Protocol:**

### **DAY 1 TO 6:**

- Abduction brace / sling
- Sleep in brace / sling
- Begin scapula musculature isometrics / sets; cervical ROM
- Patient education: posture, joint protection, positioning, hygiene, etc.
- Cryotherapy for pain and inflammation
  - -Day 1-2: as much as possible
  - -Day 3-6: post activity, or for pain

## **DAY 7 TO 28:**

- Continue use of brace / sling
- Pendulum Exercises (to begin 21 days after surgery, no pendulums before this time)
- Start passive ROM to tolerance (at 21 days)
  - -Flexion
  - -Abduction in the scapular plane
  - -ER in scapular plane
  - -IR in scapular plane
- Continue Elbow, wrist, and finger AROM / resisted
- Cryotherapy as needed for pain control and inflammation

## **Phase II – Protection Phase (Week 4-10):**

#### 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 excessive behind the back movements
- No sudden jerking motions

# Criteria for progression to the next phase (III):

Full AROM

## **WEEK 5-6:**

- Continue use of brace / sling full time until end of week 5
- Between weeks 5 and 6 may use brace / sling for comfort only
- Discontinue brace / sling at end of week 6

## **Arthroscopic Rotator Cuff Repair Protocol:**

- Initiate active assisted range of motion (AAROM) flexion in supine position
- Progressive passive ROM until approximately Full ROM at Week 4-5.
  - This ROM should be PAIN FREE
- Gentle Scapular/glenohumeral joint mobilization as indicated to regain full passive ROM
- Continue previous exercises in Phase I as needed
- Continue all precautions
- Initiate prone rowing to neutral arm position
- Continue cryotherapy as needed
- May use heat prior to ROM exercises
- May use pool (aquatherapy) for light ROM exercises
- Ice after exercise

### **WEEK 6-8:**

- Continue AAROM and stretching exercises
- Begin rotator cuff isometrics
- Initiate active ROM exercises
  - -Shoulder flexion scapular plane
  - -Shoulder abduction

# <u>Phase III – Intermediate phase (week 10-14):</u>

### Goals:

- Full AROM (week 10-12)
- Maintain Full PROM
- 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

## 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:**

#### **Arthroscopic Rotator Cuff Repair Protocol:**

- Continue stretching and passive ROM (as needed)
- Dynamic stabilization exercises
- Initiate strengthening program
  - -External rotation (ER)/Internal rotation (IR) with therabands/sport cord/tubing
  - -ER Sidelying
  - -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

## **WEEK 12:**

- Continue all exercise listed above
- Initiate light functional activities

# **WEEK 14:**

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

# Phase IV – Advanced strengthening phase (week 16-22):

## Goals:

- Maintain full non-painful active ROM
- Advance conditioning exercises for Enhanced functional use of UE
- 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

# **WEEK 20:**

- Continue all exercises listed above
- Continue to perform ROM stretching, if motion is not complete

# Phase V - Return to activity phase (week 20-26):

#### **Arthroscopic Rotator Cuff Repair Protocol:**

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

# Goals:

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

# **WEEK 23:**

- Continue strengthening and stretching
- Continue stretching, if motion is tight

# **WEEK 26:**

• May initiate interval sport program (i.e. golf, etc.), if appropriate

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