

## PHYSICAL THERAPY PROTOCOL AFTER ROTATOR CUFF REPAIR:

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The intent of this protocol is to provide the patient, clinician and physical therapist with a guideline of the postoperative rehabilitation course of a patient that has undergone an arthroscopic rotator cuff repair. It is not intended to be a substitute for clinical decision making as the clinician must also consider the progression of a patient's post-operative course based on serial physical examinations, the patient's perception of his/her progress, and the presence of any postoperative complications. If a physical therapist requires assistance in the progression of a postoperative patient, they should consult with the referring Surgeon.

Intra-operative factors may modify the speed and extent of physical therapy. Factors which are relevant and usually provided in the operative report include the size of the rotator cuff tear, the quality of the tendon tissue, the quality of the bone, and also the stiffness of the shoulder. Treatment for each patient is thus individualized to their findings with the primary goal being to initially protect the integrity of the rotator cuff repair.

In the case of a large tendon tear with significant tissue retraction and degeneration or poor quality, there may be tension on the tendon repair, so it is important to avoid any loads on the tendon. In such cases all passive and active range of motion, including pendulum exercises are delayed for 6 weeks following surgery. In the case of smaller tendon tears with good quality tissue there is likely to be little tension on the repair and so passive range of motion exercises and pendulum exercises can begin along with active motion after 4 weeks.

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

#### **Goals:**

- Protect the repair by keeping the arm in the sling, abduction brace and/or pillow as instructed by the surgeon. The decision to use the sling/brace/pillow is based on the surgeon's intraoperative findings (retraction of tendon, tension of repair, tear size, etc.) and therefore imperative to protecting the repair.
- Independence with dressing, bathing, eating (also known as Activities of Daily Living or ADLs) while maintaining the integrity of the repair. Continue to wear sling and/or abduction brace/pillow while completing ADLs.
- For sleeping the patient would need a recliner chair or sleep reclined with the use of pillows to elevate his or her body to a semi-seated position and some pillows behind the elbow of the operated shoulder in order for the patient to be more comfortable.

#### **Precautions:**

- No active range of motion (AROM) of shoulder. Passive range of motion (PROM) of the shoulder only with the exercises described below. Formal physical therapy should not start until the surgeon has cleared the patient to remove the sling and initiate the active range of motion phase of rehab; typically this begins at 6 wks.
- Maintain arm in sling, remove only for movement of elbow, wrist and fingers
- No pendulum exercises
- No lifting of objects
- Do not reach arm behind back
- No excessive stretching or sudden movements
- No supporting of body weight by hands. Be mindful of this with transitioning to stand from a chair or getting out of bed.
- Keep incision clean and dry

### DAY 1 TO 6:

- Sleep in brace or pillow / sling as instructed by surgeon
- Use ice for pain and inflammation.

Day 1-2: as much as possible

Day 3-6 and beyond: after activity, or for pain, or for comfort (IMPORTANT: Always have a cloth or towel between the ice and skin. Take a break from using ice for at least 20 minutes each hour to prevent injury to skin/frostbite.)

### Bathing:

- You may go in the shower after several days but make sure the water sprays below the dressing on your shoulder
- After one week, when the dressing is removed you may go in the shower and get your shoulder wet. Use this opportunity to do pendulum exercises as the hot water will allow you to move your shoulder with less discomfort
- It may also be easier to manage dressing if you wear a shirt which buttons in the front or a garment which is loose and can easily be pulled over your head. In all cases it is easier to put your operated arm on the sleeve of our shirt without raising it or moving it to the side and then put the other arm in the shirt.

### WEEK 1-6:

- Continue use of brace/ pillow / sling as instructed
- Continue movement of elbow, wrist, and fingers
- Use ice as needed for pain control

### Exercises Week 1- 6 weeks:

[shoulder shrug and roll](#)

[pendulum exercises](#)

IMPORTANT: The start of pendulum and scapular exercises is defined by the surgeon in the operative report. Do not start pendulum exercises if the operative report states that pendulum exercises should be started until after the 6<sup>th</sup> (or greater) postoperative week.).

## **Phase II – Protection Phase (Week 7-12):**

### **Goals:**

- Do not overstress healing tissue
- Gradually start active range of motion
- Discontinue brace / sling at end of week 6
- Initiate active assisted range of motion (AAROM) under guidance of physical therapy

### **Precautions:**

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

Start active Range of motion (AROM): The active range of motion (AROM) exercises should be supervised by the physiotherapist during the first session. In addition, the passive range of motion (PROM) home exercises should be trained by the physiotherapist. (Start of active range of motion (ROM) is defined by the surgeon in the OR report. Do not start active range of motion (AROM) exercises if the operation report states that AROM exercises should be started later). In patients with minor ruptures, strengthening is occasionally started in this phase, otherwise strengthening starts in Phase III.

### **Exercises:**

1. [flexion in supine position](#)
2. [sitting assisted forward reach \(elevation\)](#)
3. [standing wall-assisted forward flexion](#)
4. Cane-Assisted External Rotation at [20 degrees](#), [45 degrees](#) and [90 degrees](#)  
[Abduction](#)
5. [Doorway Standing External Rotation](#)
6. [Scapular plane Abduction to Tolerance](#)
7. [Active Range of Motion Forward Flexion in the Scapular Plane](#)
8. Active Range Of Motion External Rotation in Multiple Positions: [Side-Lying](#) or [Sitting](#)

### **Phase III – Intermediate phase (week 13-16):**

#### **Goal:**

- Maintain Full AROM and Maintain Full PROM
- Gradual restoration of shoulder strength, power, and endurance (Elastic bands)
- 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 heavy lifting of objects (no heavier than 5 lbs.)
- No sudden lifting or pushing activities
- No sudden jerking motions

Start of strengthening with Thera bands and light weights is defined by the surgeon in the OR report. Do not start strengthening if the operation report states that strengthening should be started later. In patients with minor ruptures, strengthening is occasionally started earlier (Phase II). In patients with big rotator cuff tears strengthening starts in Phase III.

#### **Exercises:**

1. [Active Range of Motion External Rotation with Band Strengthening](#)
2. [Active Range of Motion Internal Rotation with Band Strengthening](#)
3. [Row with Resistance Band](#)
4. [Towel/Hand-assisted Internal Rotation Stretch](#)
5. [Side lying Internal Rotation Stretch at 70 and 90 Degrees](#)
6. [Cross-Body Stretch](#)
7. Water (pool) therapy Standing in water with float under arm, lower body into water to help stretch into flexion
8. Standing in water with float under arm, lower body to side to help with external rotation

### **Phase IV Advanced strengthening phase (week 17-22):**

#### **Goals:**

- Maintain full non-painful active ROM
- Advance conditioning exercises for Enhanced functional use of UE
- Improve muscular strength, power, and endurance (light weights)
- Gradual return to full functional activities
- Continue to perform ROM stretching, if motion is not complete

#### **Exercises:**

- [Side-lying External Rotation with Towel](#)
- [Full Can in the Scapular Plane](#)
- [Prone Scaption](#)
- [Diagonal](#)
- [Dynamic Hug](#)
- [Internal Rotation at 90 Degrees Abduction](#)
- [Forward Band Punch](#)
- [Sitting Supported External Rotation at 90 Degrees](#)
- [Standing Unsupported External Rotation at 90 Degrees](#)
- [Biceps Curl](#)

### **Phase V – Return to activity phase (week 23):**

#### **Goals:**

- Gradual return to strenuous work activities
- Gradual return to recreational activities
- Gradual return to sport activities
- Continue strengthening and stretching
- Continue stretching, if motion is tight
- May initiate interval sport program

### ROTATOR CUFF TENDON HEALING

