

# Xinning Li, M.D.

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**Patient Name:**

**Date:**

**Date of Surgery:**

**Visit per week:** 2 to 3 times

**Diagnosis:** LEFT or RIGHT Shoulder Arthroscopic Large Rotator Cuff Repair  
 Supraspinatus and Infraspinatus Repair  
 Subscapularis Repair

## ROTATOR CUFF PHYSICAL THERAPY PRESCRIPTION (Slow or Conservative Program)

The following rotator cuff repair guidelines were developed by Dr. Xinning Li, which is based on the postoperative rehabilitation recommendations from the Hospital for Special Surgery. Progression is both criteria based and patient specific. Phases and time frames are designed to give the clinician and therapist a general sense of progression. The rehabilitation program following rotator cuff repair must take into account and allow for the healing of surgically repaired tissue. The patient should NOT have pain with these exercises. The program should balance the aspects of tissue healing and appropriate interventions to restore ROM, strength, and function. Factors that influence the rate at which a patient can be progressed through the program include surgical technique, quality of the tissue repaired, size of the tear, timing of the repair, etiology of the tear, and the location of tear. All of these factors may alter the guideline. Please call and notify Dr. Li's office if you are deviating from these recommendations or if the patient has increased pain or stiffness that is not expected.

**\*\* Weeks 0-3: Patient stays in the sling and abduction pillow at all times. Pendulums ok to start Week #3 (NO PAIN). NO Shoulder PROM. Elbow and wrist ROM is ok. \*\***

### 4-6 WEEKS POST-OP (Maximum Protection Phase):

**GOALS:**

1. Protect surgical repair (Sling and Abduction Pillow at ALL TIMES)
2. Decrease pain/ inflammation
3. Gradually increase shoulder ROM (MD directed)
4. Improve proximal (scapula) and distal strength and mobility

5. Independence in a home exercise program (HEP)

- Passive range of motion of the shoulder: **Start Post Op Week #4**
  - Pendulum exercises
  - Passive Supine Elevation in Scapular plane using the opposite hand **(NO PAIN)**
  - Passive ER to 40° **(NO PAIN)**, Pts with Subscapularis Repair: (Limit Passive ER to 20°)
- Can begin Active-Assisted ROM in pool (water depth up to shoulder to remove gravity)
- Modalities, Cryocuff / Ice, as Needed
- Hand, Wrist, Elbow, Active ROM
- Side-lying Scapular stabilization exercises
- Sub-maximal Deltoid isometrics
- Activities of Daily Living Exercises and Sleep Postures

**MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE:**

1. Normal scapular mobility
2. Full active ROM distal to shoulder
3. Shoulder ROM to within surgeon's set ROM goals

**6-8 WEEKS POST-OP (Moderate Protection Phase):**

**GOALS:**

1. Protect surgical repair (Sling and Abduction Pillow at **ALL TIMES**)
  2. Decrease pain/ inflammation, minimize rotator cuff inhibition
  3. Improve Range of Motion 80-100% of normal elevation in the plane of the scapula and external rotation
  4. Improve proximal scapula strength/stability, scapulohumeral rhythm and neuromuscular control
- Continue Pendulums, passive supine elevation, passive ER
  - Active-Assisted ROM:
    - Scapular plane elevation to 160° **(NO PAIN)**
    - Pulleys as motion improves
  - Use cane for ER to 60° **(NO PAIN)**
  - Begin Internal Rotation as tolerated.
  - Begin Scapular strengthening program, in protective range of motion
  - Physioball Scapular stabilization (below horizontal)
  - Isometric exercises:
    - Deltoid isometrics
    - Submaximal ER/IR isometrics at neutral
  - Isotonic exercises for Scapular stabilizers
  - Elbow Modalities as needed
  - Joint Mobilization by the Therapist
  - Pool Therapy if available

**PRECAUTIONS:**

1. Avoid pain with ADLs, ROM/ therapeutic exercise
2. Avoid active elevation of arm until 6 weeks, avoid exceeding ROM limitations
3. No maximal cuff activation

**MINIMUM CRITERIA FOR ADVANCEMENT:**

1. Ability to activate cuff and deltoid without pain

2. Tolerates arm out of sling (*May discontinue the sling at Week #6, Slowly Wane*)
3. ROM 80% or greater for elevation in plane of the scapula and external rotation

### **9-14 WEEKS POST-OP: (Early Strengthening Phase)**

#### **GOALS:**

1. Eliminate/ minimize pain and inflammation
  2. Restore full PROM
  3. Gradual return to light ADLs below 90° elevation
  4. Improve strength/ flexibility
  5. Normal scapulohumeral rhythm below 90° elevation
- Patient Should **NOT** have pain with any of these exercises
  - AROM elevation in the plane of the scapula (supine progress to standing), progress closed chain exercises
  - Begin Theraband IR / ER at week 7
  - Use towel to increase IR
  - ROM activities and emphasize flexion. Gentle passive stretch.
  - Deltoid isometrics at 30° elevation
  - Deltoid isotonic in plane of Scapula, only after positive Rotator Cuff strength is determined (especially forward flexion)
  - Continue with Scapular PRE's.
  - Biceps PREs
  - Upper body Ergometer
  - Continue with modalities, prn.
  - Restore full ROM by 12 weeks

#### **PRECAUTIONS:**

1. Monitor activity level (patient to avoid jerking movements and lifting heavy objects)
2. Limit overhead activity
3. Avoid shoulder "shrug" with activity and AROM/strengthening exercises

#### **MINIMUM CRITERIA FOR ADVANCEMENT:**

1. Minimal pain and/or inflammation
2. Full PROM
3. Improved rotator cuff and scapula strength
4. Normal scapulohumeral rhythm with shoulder elevation below 90°

### **15-23 WEEKS POST-OP: (Late Strengthening Phase)**

#### **GOALS:**

1. Improve strength to 5/5 for scapula and shoulder musculature
  2. Improve neuromuscular control
  3. Normalize scapulohumeral rhythm throughout the full ROM
- Progress Rotator cuff and Periscapular isotonic
  - Continue with aggressive Scapular exercises / stabilization
  - Upper extremity PRE's for large muscle groups, i.e. Pects, Lats, etc.
  - Begin isokinetic program, IR / ER emphasize eccentrics
  - Continue with flexibility activities (Posterior Cuff and Capsule)
  - Begin plyometric program for overhead athletes at 15 week. Continue with throwing program
  - Sports specific strengthening (when PROM and AROM is full)
  - Posterior capsule stretching after warm-ups

- Progress PRE's from side for overhead athletes

**24-26 WEEKS POST-OP: (Return to Sports or Full Activity)**

**GOALS:**

1. Maximize flexibility, strength & neuromuscular control to meet demands of sport, return to work, recreational and daily activity
  2. Isokinetic testing (If Available) - 85% limb symmetry
  3. Independent in home & gym therapeutic exercise programs for maintenance and progression of functional level at discharge
- Plyometrics above horizontal if no pain
  - Continue with isotonics and stabilization for rotator cuff
  - Continue with strengthening exercises for large upper body muscle groups and periscapular muscles
  - Continue with the above program and advance per patient progress

**PRECAUTIONS:**

1. Avoid pain with therapeutic exercises and activity
2. Avoid sport activity until adequate strength, flexibility and neuromuscular control
3. MD clearance needed for sport activity or back to work (heavy laborer) without restrictions

**CRITERIA FOR DISCHARGE:**

1. Isokinetic testing close to normal ER/IR ratios (66%), 85% symmetry
2. Independence with home/gym program at discharge for maintenance and progression of flexibility, strength and neuromuscular control

**ADDITIONAL INFORMATION / INSTRUCTIONS:**

\*\* Please send progress notes.

**Treatment:** \_\_\_\_\_ **Times per week**                      \_\_\_\_\_ **Home Program**

**Duration:** \_\_\_\_\_ **Weeks**

**Physician's Signature:** \_\_\_\_\_

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