ROTATOR CUFF TENDON REPAIR
POST-OPERATIVE REHABILITATION

The repair of the rotator cuff is a difficult procedure with at best 90% success rate. In order to have a good repair many factors are important including the quality of your tissues, a good surgical repair and compliance with the rehabilitation recommended by your doctor. **The rehabilitation program is based on the understanding that approximately 6-8 weeks is required to heal the tendon to bone**. Regardless of the surgical technique used this amount of time is required before safe active motion is encourage. The following is a general outline of how I recommend therapy for my patients. Each patient is an individual so that some variation may be recommended. Good Luck!!

Phase 1: Weeks 0-6

1. **Restrictions**
    a. **No active range of motion exercises**
        i. Small tears (0-1 cm)- No active forward elevation before-6 weeks
        ii. Medium tears (1-3 cm)- No active forward elevation before 6 weeks
        iii. Large (3-5 cm), Massive (>5 cm), Retracted- No active forward elevation before 8 weeks

    b. Passive range-of-motion exercise only (Ranges dictated by safe shoulder motion in the operating room)
        i. 140 degrees of forward flexion
        ii. 40 degrees external rotation with the arm at the side
        iii. 60 degrees of abduction without rotation

    c. NO strengthening /resisted motions of the shoulder until 12 weeks after surgery
        i. For tears with high healing potential (small, acute, under 50, non-smoker), isometric and theraband exercises may begin at 8 weeks. Strengthening before 12 weeks is performed with the arm at < 45 degrees of abduction.

2. **Immobilization**
    a. A sling with pillow is used to protect the repair.
    b. Small tears: 3 weeks
    c. Medium tears: 3-6 weeks
    d. Large, Massive, Retracted: 8 weeks

This is where I see many failures. The sling is used to keep tension off of the repair and to protect your arm. Try to follow the plan.

3. **Pain control**
    a. Reduction of pain and discomfort is essential for recovery.
        i. Medications
            1. **Narcotics** for 7-10 days after surgery. On rare occasions we will continue beyond this time. **Only rarely will this occur.**
            2. **NSAIDs:** for patients with persistent discomfort after surgery Advil, Aleve or a prescription will be given.
        ii. Therapeutic Modalities
            1. Ice, ultrasound, muscle stim
            2. Moist heat before exercises; ice at the end of the session

4. **Motion**
    a. Exercises
        i. Begin with Pendulum exercises to promote early motion. These are done at least 5 times daily only for 3-5 minutes.
        ii. Passive range-of-motion exercises only
        iii. Elbow/wrist range-of-motion

5. **Muscle Strengthening**
    a. Grip strengthening only
    b. For partial or small non-displaced tears of the supraspinatus tendon, active internal and external rotation exercises with the arm at the side and isometric internal and external rotation exercises may begin in phase 1.

Phase 2: Weeks 6-12

1. **Criteria for progression to Phase 2**
    i. At least 6 weeks of recovery elapsed
    ii. Painless passive range-of-motion exercises to:
        1. 140 degrees forward flexion
        2. 40 degrees external rotation
        3. 60 degrees of abduction

2. **Immobilizatio**n
    i. Sling for comfort only

3. **Pain control**
    i. NSAIDs for persistent pain
    ii. Ice, heat, Stim, Ultrasound

4. **Motion Shoulder**

I. Goals
   i. 140 degrees of forward flexion progressing to 160 degrees.
   ii. 40 degrees external rotation progressing to 60 degrees.
   iii. 60 degrees of abduction progressing to 90 degrees.

II. Exercises
   i. Begin active assisted range of motion to achieve above goals
   ii. Daily stretching to achieve normal motion

III. Muscle Strengthening
   i. For small and non-displaced tears begin light theraband exercises and begin scapular stabilizer strengthening with arm at the side

Phase 3: Months 3-6

1. **Criteria for progression to phase 3**
   a. Painless active Range of motion
   b. No shoulder pain or tenderness
   c. Satisfactory clinical exam

2. **Goals**
   a. Improve shoulder strength, power and endurance
   b. Improve neuromuscular control and shoulder proprioception
   c. Establish home maintenance program and return to functional activities

3. **Muscle Strengthening**
   a. Strengthening of Rotator cuff by progression through therabands. Begin with arm to side and elbow flexed. Progress through an arc of 45 degrees at a time. Begin with easiest theraband and progress though each color. Progress through light isotonic dumbbell exercises.
   b. Deltoid strengthening
   c. Scapular Stabilizers
   d. Each should be done in 3 sets of ten to begin and progress to 3 sets of twenty. Do not move up with theraband or dumbbells until the last set is done with ease and no pain occurs.

Maximum Improvement

Patients will continue to show improvement in strength and function for at least one year.

- **Small tears: 6 months**

- **Medium tear: 6-8 months**
- **Large and Massive tears: 8-12 months.**

Warning Signals

- Loss of motion, especially internal rotation
- Lack of strength progression, especially abduction
- Continued pain, especially at night

If these warning signals occur you may need to:

- Move back to earlier routines
- Require altered medication
- Require repeat surgical intervention

I generally become concerned if you suddenly have increased pain for little apparent reason or continue to have pain of significance after 6 months. If either of these events occur I generally will repeat a special MRI with a dye called gadolinium injected into the joint. If this test is negative then the pain you are experiencing may not be cured by further surgical intervention. If this is positive then repeat surgery may be indicated.