



# DOSHER Physical Therapy



## **TYPE ONE ROTATOR CUFF REPAIR SMALL TEAR LESS THAN 1cm**

The guidelines of rehabilitation are based on scientific data related to the operative procedure performed and the phases of healing which are the inflammatory response phase, fibroblastic repair and maturation-remodeling phase.

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### ***1. PHASE ONE - PROTECTIVE PHASE (WEEK 0-6)***

**(Patient to be seen approximately one-three times a week for first four weeks)**

#### **GOALS:**

- 1. Gradual return to full ROM**
- 2. Increase shoulder strength/prevent muscular inhibition**
- 3. Decrease pain and inflammation**
- 4. Maintain integrity of repair**
- 5. Maintain / improve aerobic condition**

#### **PRECAUTIONS:**

- 1. No lifting of objects**
- 2. No excessive shoulder extension**
- 3. No excessive stretching or sudden movements**
- 4. No supporting of body weight**
- 5. Keep incision clean and dry**

### **A. Week 0-3**

1. Sling /brace for comfort depending on physician (2-4 weeks )
2. Pendulum exercises : start immediately post-op in hospital
3. Passive range of motion- external rotation/internal rotation at least 45degrees (90 degrees shoulder abd) – progress as tolerated
4. Active Assisted ROM exercises, external and internal rotation performed in scapular plane. ( therapist progress to independence)
5. Rope and Pulley for flexion (only)
6. Elbow ROM, Hand gripping
7. Strengthening exercise – start @ 2weeks
  - a. tubing internal/external (submax and painfree),prone rows, rhythmic stabilization (supine flexion 90-125 degrees)
8. Isometrics (submaximal with elbow flexed 90 degrees, nonpainful)
  - a. Abductors/add/extensors
  - b. External Rotators
  - c. Internal Rotators
  - d. Elbow Flexors
9. Pain control modalities/E-stim
  - Range of motion exercises are employed in a non-painful range, gently, and gradually increase motion to tolerance
  - Electrical stimulation to rotator cuff

### **B. Week 3-6**

1. Progress all exercises (Continue all above exercises)
2. PROM exercise – flexion -160-180 degree,external rotation 75-90 (90 abduction),internal rotation 50-55 (90 degrees abduction)
3. AAROM exercises working toward full range of motion by week 6
4. AROM-shoulder flexion in scapular plane,shoulder abduction
5. Surgical tubing ER/IR (arm at side)
6. Continue humeral head stabilization exercises
7. Patient can perform pool exercise for light active range of motion exercise

## ***II. PHASE TWO – INTERMEDIATE PHASE (WEEK 7-12)***

### **Goals:**

- 1. Full, non-painful ROM**
- 2. Improvement of strength and power**
- 3. Increasing functional activities; decreasing residual pain**
- 4. Dynamic shoulder stability**

#### **A. Week 7-10**

1. ACTIVE assisted range of motion exercises
  - a. Flexion to 170-180 degrees
  - b. ER/IR to within normal limits (90 degrees abduction of shoulder)
2. Strengthening exercises for shoulder
  - a. exercise tubing ER/IR arm at side
  - b. Isotonics dumbbell exercises for:
    - Deltoid
    - Elbow Flexion/extension
    - Scapular muscles- prone rowing, horizontal abduction and prone extension (painfree)
    - Full can in scapular plane without substitution.( painfree)
    - Upper body ergometer
    - starting week 10 can use 1 lb weight for flexion –without substitution
    - PNF diagonals D2 flex/ext,int ext rot strengthening A 90 abd,modified bar push-up.

#### **B. Week – 12**

1. Continue all above exercises
2. Progress strength exercise program
3. Continue range of motion and flexibility exercise

## ***III. PHASE THREE- ADVANCED STRENGTHENING PHASE (WEEK 13-21)***

### **GOALS:**

- 1. Maintain full, non-painful ROM**
- 2. Improve shoulder complex strength**
- 3. Improve neuromuscular control**
- 4. Gradual return to functional activities**

#### **A. Week 13-18**

1. Active stretching program for the shoulder
  - AAROM L – Bar Flexion, ER, IR
2. Capsular stretches
3. Aggressive strengthening program (Isotonic Program)
  - a. Shoulder flexion
  - b. Shoulder Abduction
  - c. Supraspinatus

- d. ER/IR
- e. Elbow Flexors / Extensors
- f. Scapular Muscle
- 4. General conditioning program
- 5. Golfers can initiate putting chipping, tennis players can volley ball against wall.

**B. Week 18-21**

- 1. Continue all exercises listed above
- 2. Initiate interval sport program – eg. Swimming, tennis volley on court, golfing

***IV. PHASE FOUR - RETURN TO ACTIVITY PHASE (WEEK 21-26)***

**GOAL:**

**1. Gradual return to recreational sport activities and strenuous work activity.**

**A. Week 21-26**

- 1. Continue to comply to interval sport program
- 2. Continue basic ten program for strengthening and flexibility
- 3. Continue fundamental program at least 4 times per week at home or in recreational facility

**TYPE TWO- ROTATOR CUFF REPAIR  
MEDIUM TO LARGE TEAR  
(GREATER THAN 1CM AND LESS THAN 5CM)**

***I. PHASE ONE - PROTECTIVE PHASE (WEEK 0-6)***

(Patient to be seen approximately one time-three times a week for first four weeks)

**GOALS:**

- 1. Gradual increase in ROM**
- 2. Increase shoulder strength**
- 3. Decrease pain and inflammation**
- 4. Maintain integrity of repair**
- 5. Maintain /improve aerobic conditioning**

**PRECAUTIONS:**

- 6. No lifting of objects**
- 7. No excessive shoulder extension**
- 8. No excessive stretching or sudden movements**
- 9. No supporting of body weight**
- 10. Keep incision clean and dry**

**A. Week 0-3**

1. Brace or sling (physician determines)- approximately 4 weeks- 6 weeks
2. Pendulum exercises
3. Active Assisted ROM exercises (wand exercises in supine)
  - a. Start with therapist : patient can perform after demonstrating independence
  - b. Flexion to 145 degrees
  - c. ER/IR (shoulder at 45 degrees abduction in scapular plane elevated on pillows)
4. Passive Range of motion (supine) – flexion -145 degrees, external/internal rotation to 45 degrees (shoulder abduction 90 degrees), adduction and extension to tolerance.
5. Elbow ROM and hand gripping exercises
6. Submaximal Isometrics ( elbow @ 90 degrees)
  - a. Flexors/extensors
  - b. Abductors/adductors
  - c. ER/IR
  - d. Elbow Flexors/extensors
7. Scapular stabilization ( supine) consisting of ER/IR scapular plane elevated on pillows (submaximal rhythmic stabilization), flexion/extension @ 90 ,100,125 degrees.
8. Ice and pain modalities
  - a. Gently increase Joint Mobilization to grade I-II

## **B. Week 3-6**

1. Discontinue brace or sling (may sleep in for protection)
2. Continue all exercises listed above
3. AAROM exercises
  - a. Flexion to tolerance ( achieve full range)
  - b. ER/IR (performed at 90 degrees abduction) range to tolerance
  - c. ER/IR (scapular plane elevated on planes @ 45 degrees abduction)
4. Initiate external rotation strengthening exercise in neutral @ 5-6 weeks
5. Initiate active range of motion in supine progressing to standing @ 5-6 weeks
  - a. flexion in scapular plane
  - b. external and internal rotation in scapular plane
6. Isotonic strengthening (1lb weight) @ 5-6 weeks
  - a. prone rowing
  - b. prone horizontal abduction
  - c. bicep curls/triceps
7. Rythmic stabilization supine- flexion 45/90/125

## ***II. PHASE TWO – INTERMEDIATE PHASE (WEEK 7-14)***

### **Goals:**

- 1. Full, non-painful ROM (week 8-10)**
- 2. Gradual increase in strength**
- 3. Decreased pain**
- 4. Gradual return to functional activities**

## **A. Week 7-10**

1. Continue stretching and passive range of motion. Active range of motion without substitution – supine-semireclined-sitting with visual feedback.
2. Continue dynamic stabilization drills
3. Strengthening exercises
  - a. Exercise tubing external/internal rotation shoulder in neutral with pillow, sidelying ER/IR 91 lb wt)
  - b. Progress humeral head stabilizing exercise
  - c. Isonic dumbbell strengthening exercises for:
    - Full can scapular plane
    - Elbow flexion / extension
    - Scapular muscles – prone rows ,horizontal abduction/extension and lateral raises.

**B. Week 10-14 (full range of motion desired by week 10-12)**

1. Continue all exercise listed above
2. Progress side-lying ER/IR exercises (dumbbell)
3. Progress neuromuscular control exercise for scapula
4. Initiate isotonic resistance ( 1 lb weight) during flexion and abduction.

Progress strengthening program ( 1lb every 7 days) pain free Patient must be able to elevate arm without shoulder and scapular substitution with deltoid isotonic strengthening; if unable, maintain on humeral head stabilizing exercises.

**III. PHASE THREE – ADVANCED STRENGTHENING PHASE (WEEK 15-22)**

**Goals:**

1. Maintain full, non-painful ROM
2. Improve muscle strength and power of shoulder
3. Improve neuromuscular control
4. Enhance functional use of upper extremity

**A. Week 15-20**

1. Continue Passive, AAROM and AROM
2. Self capsular stretches
3. Progress shoulder strengthening exercise.
4. Initiate interval sport program-If appropriate initiate golf program/interval tennis program/swimming

**IV. PHASE FOUR – RETURN TO ACTIVITY PHASE (WEEK 15-26)**

**Goals:**

1. Gradual return to strenuous work and recreational sport activities

**B. Week 21-26**

1. Continue all exercises listed above
2. Continue progression to sports participation

**TYPE THREE – ROTATOR CUFF REPAIR (DELTOID SPLITTING)  
LARGE TO MASSIVE TEAR (GREATER THAN 5 CM)**

**I. PHASE ONE – PROTECTIVE PHASE (WEEK 0-8)**

**(Patient to be seen approximately one time a week for first four weeks)**

**GOALS:**

- 1. Gradual increase PROM per MD**
- 2. Decrease pain and inflammation.**
- 3. Maintain integrity of repair**
- 4. Facilitate full passive range of motion by week 6**
- 5. Maintain muscle activity of rotator cuff /scapular stabilizers.**
- 6. Independent with home exercise program positioning and edema control**
- 7. Improve or maintain cardiopulmonary conditioning levels.**

**Precautions:**

- 1. No active range of motion**
- 2. No excessive stretching, sudden movements or excessive motions behind the back**
- 3. No supporting of body weight**
- 4. No lifting of objects**

**Week 0-4**

1. Abduction pillow Brace (determined by physician)
2. Pendulum exercises
3. Mobilization of scapulothoracic and glenohumeral joints grade I-II
4. Passive ROM to tolerance
  - a. Flexion to tolerance
  - b. ER/IR in scapular plane (shoulder at 45 degrees abduction) supported by pillows
  - c. Abduction/adduction to tolerance
5. Elbow ROM
6. Hand gripping exercises
7. Ice and pain modalities
8. Gentle AAROM with wand exercises at **week 2** when therapist determines patient is ready
9. Begin scapular control exercise with brace consisting of scapular protraction/retraction/elevation/depression in sidelying position.
10. Rope and Pulley for flexion (only)
11. Instruct patient in self passive range of motion.

**A. Week 4-8**

1. Discontinue brace or sling when M. D. specifies
2. AAROM with wand
  - a. Flexion
  - b. ER/IR (shoulder 45 degrees abduction) 40 degrees



3. Continue pain modalities
4. Passive range of motion to within full limits – 6-8 weeks
5. Glenohumeral and scapulothoracic mobilization grade III
6. Initiate gentle submaximal isometrics with shoulder in neutral elbow bent 90 degrees @ 6 weeks
7. Progress scapular stabilization to prone @ 6 weeks
8. Begin rhythmic stabilization supine (gentle)

## ***II. PHASE TWO – INTERMEDIATE PHASE (WEEK 8-14)***

### **GOALS:**

- 1. Establish full active range of motion (week 12)**
  - 2. Gradual increase in strength**
  - 3. Decrease pain**
  - 4. Maintain integrity of repair**
  - 5. Maximize strength and scapular stabilizers**
  - 6. Independent with functional activities of daily living**
- Stop**

#### **A. Week 8-10**

1. AAROM L-Bar exercises
  - a. Flexion to tolerance
  - b. ER/IR (shoulder 90 degrees abduction) to tolerance
  - c. Biodex PNF Diagonal
  
2. Initiate isotonic strengthening
  - a. Deltoid to 90 degrees
  - b. ER/IR side-lying
  - c. Supraspinatus
  - d. Biceps/Triceps
  - e. Scapular muscles
  
3. Week 10-14
  1. Full ROM desired by week 12-14
  2. CONTINUE ALL EXERCISES LISTED ABOVE
  3. Initiate neuromuscular control exercises
    - \* If patient is unable to elevate arm without shoulder hiking (scapulothoracic substitution) then maintain on humeral head stabilizing exercises.

## ***III PHASE THREE – ADVANCED STRENGTHENING PHASE (WEEK 15-26)***

### **GOALS:**

- 1. Maintain full, non-painful ROM**
- 2. Improve strength of shoulder**

### **3. Improve neuromuscular control**

### **4. Gradual return to functional activities**

#### **A. Week 15-20**

1. continue AAROM exercises with wand – flexion, ER, IR
2. Self Capsular stretches
3. Aggressive strengthening program
  - a. Shoulder Flexion
  - b. Shoulder Abduction ( to 90 degrees )
  - c. Supraspinatus
  - d. ER/IR
  - e. Elbow flexors /Extensors
  - f. Scapula Strengthening
4. Conditioning program

#### **B. Week 21-26**

1. Continue all exercises listed above
2. Isokinetic test (modified neutral position) for ER/IR at 180 and 300 degrees/sec
3. Initiate interval sport program

### ***IV PHASE FOUR- RETURN TO ACTIVITY PHASE (WEEK 24-28)***

#### **GOAL:**

1. Gradual return to recreational sport activities.

#### **A. Week 24-28**

1. Continue all strengthening exercises
2. Continue all flexibility exercises
3. Continue progression on interval programs