Jennifer L. Cook, MD Stephen A. Hanff, MD

Florida Joint Care Institute 2165 Little Road, Trinity, Florida 34655 PH: (727) 372 – 6637 FAX: (727) 375 – 5044

Rotator Cuff Type I Repair (Small Large Tear)

This rehabilitation protocol has been developed for a patient following a Rotator Cuff Type I or Type II Repair. It is extremely important to **protect the repair for 2 weeks** post – operatively to allow for appropriate healing to take place. This protocol has been divided into several phases, each of which may vary slightly based upon the individual patient and his or her special circumstances.

Goals of the Surgical Procedure and Rehabilitation:

- Control Pain and Inflammation
- Maintain the Integrity of the repair
- Prevent Muscular Inhibition
- Regain normal upper extremity strength and endurance
- Regain normal shoulder range of motion
- Achieve the highest level of function based on both the physician and the patient's individual goals.

Important Post – Operative Signs to Monitor:

- Swelling of the shoulder and surrounding soft tissue
- Abnormal pain response, hypersensitive an increase in night pain
- Severe Range of Motion Limitations
- Weakness in the upper extremity musculature

Returning to Activity:

To safely and most efficiently return to normal or high level functional activity the patient requires adequate strength, flexibility, and endurance this **will require both time and clinical evaluation**. Functional evaluation including strength and range of motion testing is one method of evaluating a patient's readiness to return to such activity. Returning to intense activities following a Rotator Cuff Type III Repair will require both a strenuous strengthening and range of motion program. The patient will also have to wait a period of time to allow for appropriate tissue healing. Symptoms such as pain, swelling, or instability should be closely monitored by the patient.

PHASE I: IMMEDIATE POST – SURGICAL PHASE (DAY 1 – WEEK 3)

<u>Goals:</u>

- Maintain integrity of the Repair
- Gradually increase Passive Range of Motion
- Diminish Pain and Inflammation
- Prevent Muscular Inhibition

Day 1 to Day 14:

- Use Abduction Pillow Brace
- Elbow / Hand Gripping & ROM Exercises
- Cryotherapy for Pain and Inflammation
 - Ice 15 20 minutes every hour
- Sleeping
 - o Sleep in Pillow Brace

Day 14 to Week 4:

- Discontinue use of the pillow brace 2 weeks post op
- Pendulum Exercises
- Passive ROM to Tolerance
 - Flexion to at least 115 degrees
 - ER in Scapular Plane at 45 degrees of Abduction to 20 25 degrees
 - IR in scapular plane at 45 degrees abduction to 30 35 degrees
- Elbow / Hand ROM & Gripping Exercises
- Isometrics (Submaximal and Sub-painful)
 - o Flexion with Elbow Bent
 - Extension with Bent Elbow
 - o Abduction with Bent Elbow
 - ER / IR with arm in Scapular Plane
- Initiate Rhythmic Stabilization ER / IR at 45 degrees abduction
- Use Ice for Pain Control

Precautions:

- No Lifting objects
- No Excessive Shoulder Extension
- No Excessive stretching or Sudden Movements
- No Supporting of body weight by hands
- Keep Incision Clean & Dry

PHASE II: PROTECTION PHASE (WEEKS 4 - 6)

Goals:

- Allow Healing of soft tissue
- Do not overstress healing tissue
- Gradually restore full Passive ROM
- Re-Establish Dynamic Shoulder Stability
- Continue to decrease pain and inflammation

Week 4 to Week 5

- Passive Range of Motion to tolerance
 - Flexion to 140 155 degrees
 - $\circ~$ ER at 90 degrees abduction to at least 45 degrees
 - o IR at 90 degrees abduction to at least 45 degrees
- Active Assisted ROM to tolerance (Supine)
 - Flexion (Therapist provides support to the arm, especially with arm lowering)
 - ER/IR in scapular plane at 45 degrees abduction
 - $\circ~$ ER / IR at 90 degrees Abduction
- Dynamic Stabilization Drills
 - o Rhythmic Stabilization Drills
 - ER/IR in Scapular Plane
 - Flexion / Extension at 100 degrees Flexion and 125 degrees Flexion
- Continue all Isometric Contractions
- Initiate Scapular Isometrics
- Continue all Precautions
 - No Lifting
 - No Excessive Motion
- May continue to use Cryotherapy as needed

Week 5 to Week 6

- Patient should exhibit full PROM by week 4
- Continue all exercises listed above
- Initiate ER / IR strengthening using exercise tubing at 0 degrees of abduction (Use Towel Roll)
- Initiate manual resistance ER supine in Scapular Plane (light resistance)
- Initiate Prone Rowing to neutral arm position
- Initiate Prone Shoulder Extension
- Initiate ER strengthening exercises
- Initiate Isotonic Elbow Flexion
- Continue Use of Ice as Needed
- May use heat prior to ROM exercises
- May use pool for light AROM exercises

- Rhythmic Stabilization Exercises (Flexion @ 45, 90,125 degrees) (ER / IR)
- Continue AAROM and Stretching exercises
 - Especially for movements that are not full ROM
 - Shoulder Flexion
 - ER at 90 degrees Abduction
- Initiate AROM exercises
 - Shoulder flexion scapular plane
 - Shoulder abduction
- Progress Isotonic Strengthening Exercise Program
 - ER Tubing
 - o Side-lying IR
 - Prone Rowing
 - o Prone Horizontal Abduction
 - o Bicep Curls

Precautions:

- No heavy lifting of objects
- No excessive behind the back reaching
- No supporting of body weight by hands and arms
- No sudden jerking Motions

PHASE III: INTERMEDIATE PHASE (WEEKS 7 – 14)

GOALS:

- Full AROM (weeks 8-10)
- Maintain Full Passive ROM
- Dynamic Shoulder Stability
- Gradual Restoration of shoulder strength
- Gradual Return To Functional Activities

Week 7

- Continue stretching and PROM as needed to maintain Full ROM
- Continue Dynamic Stabilization Drills
- Progress Strengthening Program
 - ER/IR Tubing
 - o ER Side-lying
 - o Lateral Raises
 - Full Can In Scapular Plane
 - Prone: Rowing / Horizontal Abduction / Shoulder Extension
 - Elbow Flexion / Extension
 - o If Physician Permits May Initiate LIGHT Functional Activities
 - Progress to fundamental Shoulder Exercises

• Therapist may initiate isotonic resistance 1# during flexion and abduction - *if non painful normal motion is exhibited*

Progress patient strengthening program (Increase 1 lb. / 10 days) if and only if...Patient is able to elevate arm without shoulder or scapular hiking, if un-capable, continue with glenohumeral joint exercises without increasing difficulty

Week 8

- Continue all exercises listed above
- If physician permits, may initiate light functional activities

<u>Week 10</u>

- Continue all exercises above
- Progress to fundamental shoulder exercises
- Therapist may initiate isotonic resistance (1 LB weight) during flexion and abduction
 - If **non painful normal motion** is exhibited

Week 11 to Week 14

- Progress all exercise
 - Continue ROM and flexibility exercises
 - Progress strengthening program (Increase 1 LB / 10 Days IF Non Painful)

PHASE IV: ADVANCED STRENGTHENING PHASE (Weeks 15 – 22)

Goals:

- Maintain Full Non Painful ROM
- Enhance Functional Use of UE
- Improve Muscular Strength and Power
- Gradual Return to Functional Activities

Week 15

- Continue ROM & Stretching to Maintain Full ROM
- Self-Capsular Stretches
- Progress Shoulder Strengthening Exercises
 - Fundamental Shoulder Exercises
- Initiate Interval Golf Program (If Appropriate)

<u>Weeks 20 – 22</u>

- Continue all Exercises above
- Progress Golf Program to Playing Golf (if Appropriate)
- Initiate Interval Tennis Program (If Appropriate)
- May Initiate Swimming

PHASE V: RETURN TO ACTIVITY PHASE (WEEKS 23 - 26)

Goals:

- Gradual Return to Strenuous Work Activities
- Gradual Return to Recreational Sport Activities

Week 23 ---- on

- Continue Fundamental Shoulder Exercise Program (At Least 4 Times Per Week)
- Continue Stretching, If Motion is Tight
- Continue Progression to Sport Participation