OrthoCarolina

ROTATOR CUFF REPAIR PROTOCOL (MASSIVE)

Typically a massive rotator cuff tear is defined as a tear >5cm. Some surgeons may also define a massive rotator cuff tear based on poor tissue quality, poor bone quality or when more than one muscle is involved. Because of this there needs to be dialogue between the physician and the therapist so there is an understanding of why the massive protocol should be followed. There are certain inherent precautions with each of the above mentioned issues and it is up to the physician and the therapist to discuss these. Also consider patient characteristics (age, lifestyle, work, recreational activity, dominant arm) and pre-morbid state.

Other considerations:

- Open rotator cuff repairs:
  - The deltoid is detached from the anterior acromium during this procedure, thus, it is important to protect the deltoid from tensile loads and avoid shoulder extension for 8-10 weeks post op.
- Rotator cuff repair with BICEP TENODESIS: NO resisted bicep activity for 8-10 weeks. Do not stretch elbow extension aggressively.

Primary goals for postoperative rehab:

- **Protect the repair and promote healing:**
  - Patient to wear sling with pillow for 6-8 weeks post op.
  - Patient education is essential
- Gradually restore passive motion, scapulohumeral rhythm, dynamic stabilization of the glenohumeral joint, and strength of the RTC and surrounding muscles.

PHASE I: PROTECTION PHASE (0-8 WEEKS)

- Sling with pillow 6-8 weeks. Gradually wean out of daytime sling at 6 weeks post op in a controlled environment. Continue to sleep in sling until 8 weeks post op.
  - During this time the physician might allow the patient to come out of the sling in a controlled environment (quiet home or office) if the elbow is supported while keyboarding, reading, or watching television.
- Educate patient's family in gentle PROM to be performed 2-3x/day
- Patient to ice at least 4x/day in supported abduction pillow to reduce pain and inflammation.
- Return to driving at 8 weeks post op.

Precautions: Avoid shoulder AROM, aggressive stretching and weight bearing through surgical extremity.

Goals: Protect the repair, gradually increase PROM, reduce pain and reduce inflammation.

Protocol developed in conjunction with OrthoCarolina Physicians.

0-4weeks

- Gradual PROM, no shoulder extension
- AROM elbow, wrist, and hand. Grip strengthening
- Patient education: posture, joint protection, positioning, keep the incision clean and dry

4-6 weeks

- Gradual PROM to pain tolerance, no shoulder extension
    - PROM goals: FE 140, ER in 45 degrees ABD to 35, ER in 90 degrees ABD to 45
- Scapular retraction isometrics, avoiding shoulder extension. Cervical AROM.
- Supine AAROM with cane for ER/IR in 45 degrees ABD in the scapular plane.
- Resume general conditioning: walking and stationary bike with sling on. No shoulder extension
- Initiate scapular mobilizations and other manual techniques as needed to decrease soft tissue and scapular dysfunctions from sling wear.

6-8 weeks

- Gradual PROM to tolerance, no shoulder extension
    - Avoid aggressive stretching to achieve full PROM.
- Gentle pain free, submax shoulder isometrics
- Gentle pain free, submax open chain rhythmic stabilization at 100 degrees of elevation in the scapular plane in supine, and ER/IR at 45 degrees ABD in supine.
- AAROM supine forward elevation with cane. PT to provide assistance as needed.
- Initiate use of pulleys in the scapular plane for overhead ROM
- May initiate UBE avoiding extension, below shoulder height, pain free.

***** Do no progress to phase II if patient presents with excessive stiffness and pain. Contact physician if excessive stiffness is present and they are not meeting ROM goals*****

PHASE II: PROTECTION TO AROM PHASE (8-14 WEEKS)

Precautions: No lifting, WB through surgical UE, sudden jerking motions, or aggressive, behind the back, motions.

Goals: Restore normal scapula-thoracic and glenohumeral kinematics, continued repair Protection

Restore dynamic shoulder stability, gradual return to functional activity, achieve full PROM, pain-free AROM.

8-10 weeks

- Sidelying ER AROM with small towel under arm
- Supine and sidelying forward elevation AROM in the scapular plane in pain free range. ****Progress to standing when patient can perform pain free without substitutions****
- Prone scapulothoracic strengthening: Prone Row, Extension, horizontal abduction, abduction 100, ER (90/90). **Limit the range to prevent shoulder extension past midline of body.**
- Rows with thera-band. **Limit the range to prevent shoulder extension past midline.**

- Continue rhythmic stabilizations to restore dynamic glenohumeral joint stability

10-12 weeks

- Progress above AROM repetitions working on endurance; **high reps, no resistance**
- Continue PROM, AAROM, joint mobilizations grade 3 and 4 as needed to achieve full ROM.
- IR/ER theraband at side
- Return to jogging
- Initiate gentle internal rotation behind the back
- Begin gentle close kinetic chain stabilization

12-14 weeks

- Progress AROM to RROM (high repetitions, low weight: 1 to 2lbs), only if pain-free and without substitution patterns
- **It should be strongly encouraged that the patient's main focus in phase I and II should be to restore ROM slowly and incrementally and that strengthening is secondary.**

Do not progress to strengthening phase if the patient cannot perform AROM without pain and without shoulder and scapular shrugging/hiking*

PHASE III: PROGRESSION FROM AROM TO PROTECTED STRENGTHENING (14-18 WEEKS)

Goals: maintain full ROM; enhance functional use of UE, improve strength

14-18 weeks

- Progress RROM in pain free ranges
- Progress phase II scapulothoracic strengthening
- Progress theraband IR and ER from neutral → scapular plane → 90/90 position
- Proprioception with body blade, PNF patterns
- Progress CKC exercises such as ball on the wall, quadruped position on table progressing to unsteady surface, wall push ups.
- Low level plyometric progression: ball dribbling, 2 hand plyoback.
- Continue ROM, capsular stretching, flexibility exercises to maintain full ROM
- Enhance functional use of UE

PHASE IV: ADVANCED STRENGTHENING PHASE (18 - 26 WEEKS)

Goals: Maintain integrity of rotator cuff repair; gradual return to strenuous work activity; gradual return to recreational sport activity

The patient must demonstrate good scapulohumeral mechanics, good dynamic stability, and adequate strength for progression into work/sports related activity.

These timeframes are average. Some surgeons may be more aggressive or more

conservative when allowing return to sport.

- Initiate interval golf program
    - 18 weeks chipping and putting
    - 22-26 weeks progress full swing depending on surgery done to dominant or non-dominant arm. All shots should be hit off of a tee for 1 year post op.
- Initiate interval tennis program
    - 22 weeks ground strokes
    - 26 weeks doubles tennis
- Initiate return to throwing program
    - 26 weeks
- Initiate job specific rehab
    - 18 weeks

****Patient to continue a fundamental shoulder exercise program until 12 months post op****

Developed in conjunction with the physicians and physical therapy team at OrthoCarolina