


Rotator Cuff Repair Guidelines

 NMC <small>NORTHWESTERN MEDICAL CENTER</small>	Document Classification	<input type="checkbox"/> Policy <input type="checkbox"/> Procedure <input checked="" type="checkbox"/> Guideline
	Document Type:	<input type="checkbox"/> Administrative <input checked="" type="checkbox"/> Clinical
	Applicability:	<input type="checkbox"/> Organization <input type="checkbox"/> Hospital <input checked="" type="checkbox"/> NMG <input type="checkbox"/> Department Only
Effective Date: 11/02/2016		

Purpose: Define the process to be followed for all patients referred from Northwestern Orthopedics after the above procedure has been performed.

Target Users: Treatment will follow the defined guidelines below and be carried out by Physical Therapist, Athletic Trainer and/or Physical Therapy Assistants.

Definitions:

- AROM=Active Range of Motion
- AAROM= Active Assisted Range of Motion
- PROM= Passive Range of Motion
- ER= External Rotation
- IR= Internal Rotation
- PT= Physical Therapist

Guidelines:

The following is an outlined progression for rehab. Timetables are approximate and advancement from phase to phase as well as specific exercises performed should be based on each individual case, communication with the surgeon and sound clinical judgement by the rehab professional. Operative report should be read to determine the extent of rotator cuff involvement, integrity of the articular surface, involvement of the bicep tendon and glenoid labrum.

The rotator cuff is a slow healing structure due to poor blood supply. Healing occurs at a rate of 10% per month. Patient should note that the rotator cuff has a very short lever arm. The outstretched arm has a very long lever arm, so this causes a significant stress on the rotator cuff. There are two major post-operative risks, #1 re-tear and #2 frozen shoulder. Re-tear is by far the greatest risk and therefore protection of the repair is by far the focus of the rehabilitation process. A frozen shoulder is easier to manage. Early postoperative stiffness is very common and usually resolves over time.

IMMEDIATE POSTOP PHASE

Small tear: 0-1 week

Medium-Large: 0-2 weeks

Massive: 0-4 weeks

Goals: Protect the anatomic repair
Prevent negative effects of immobilization
Diminish pain and inflammation

Sling use:

Small tear- 2-3 weeks (educate that patient should continue to avoid active shoulder motion even when out of the immobilizer until allowable by protocol). Remove the bolster from the immobilizer at 2 weeks. (start to wean at 2 weeks goal to wean 100% by end of 3 weeks)

Medium to Large- 4-6 weeks (educate that patient should continue to avoid active shoulder motion even when out of the immobilizer until allowable by protocol).

Remove the bolster from the immobilizer at 4 weeks

Massive- 6-8 weeks , Remove the bolster from the immobilizer at 6 weeks

Driving: use the same timeframes as weaning from sling AND patient must no longer be taking narcotics. Educate patient to keep hands at 4 o'clock and 8 o'clock on the steering wheel.

Variance: Modification of this timeframe by the surgeon is not unusual based on intraoperative assessment as well as patient specific factors. Surgeon will communicate any variance from this timeframe with the treating therapist.

Immediate POSTOP PHASE

First outpatient physical therapy scheduled for post-op day 2-3 for all groups

*Dressing:*therapist will remove post op dressing at initial PT visit. Wound will be cleansed and band-aids applied. If aquacel AG is used by surgeon this will be removed in PT at post-op day 7.

Pt. education: encourage frequent ice use, postural awareness, wound care, compliance with precautions, use of immobilizer, proper dressing and washing techniques to maintain precautions.

Edema Control:

Ice/cryocuff

Kinesiotape if indicated

Estim- if indicated

Suggested exercises:

Hand, wrist, forearm, elbow AROM and isometrics.

Cervical AROM

Passive shoulder pendulum

PROM ER in supine with wand (elbow at side in 0-20 degrees abduction)

- *Variance if subscapularis repair- No ER (active and passive) past neutral x 6 weeks,*

forward elevation in scapular plane with shoulder in IR only x 6 weeks, no abduction (active and passive) x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degree.

- *If biceps repair- no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

POST-OP Phase 1

Small tear: 1 week

Medium-Large: 2 weeks

Massive: 4 weeks

Goals: Protect the anatomic repair

Prevent negative effects of immobilization

Diminish pain and inflammation

PROM goals flexion 100, ER 20 (in 0-20 abduction) , abduction 60

Edema Control:

Ice/cryocuff

Kinesiotape if indicated

Estim- if indicated

Pt. education: encourages frequent ice use, postural awareness, compliance with precautions, use and weaning from immobilizer depending upon repair size.

Suggested Exercise:

Gentle shoulder PROM in all directions, do not force IR

Passive pulleys- flexion and abduction

Scapular isometrics: retraction and depression

Hand, wrist, forearm, elbow AROM and isometrics

Conditioning: Cardiovascular exercise that does not stress the repair or put patient at risk of falling. Stationary biking, walking for example.

- *Variance if subscapularis repair- No ER past neutral (active and passive) x 6 weeks, forward elevation in scapular plane with shoulder in IR only x 6 weeks, no abduction (active and passive) x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.*
- *If biceps repair- no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

POST-OP Phase 2

Small tear: 4 weeks

Medium-Large: 6 weeks

Massive: 8 weeks

Goals: Protect the anatomic repair

Prevent negative effects of immobilization

Promote proprioception and scapula-humeral rhythm

Diminish pain and inflammation

PROM goals-flexion 130, ER 40 (in 0-20 abduction), abduction 75
Grade I/II shoulder and scapular joint mobilizations per clinical presentation

Pt. education: may return to sedentary work with elbow at side, no resistive activity/lifting, avoid repetitive abduction

Suggested exercises:

Submaximal shoulder isometrics in neutral

Shoulder AAROM progressed to AROM. Start with gravity reduced positions and progress to against gravity as tolerated.

UBE

Scapular row and shoulder extension

Grade I/II shoulder and scapular joint mobilizations

Hand, wrist, elbow resisted exercises in all directions

- *Variance if subscapularis repair- No ER past neutral (active and passive) x 6 weeks, forward elevation in scapular plane with shoulder in IR only x 6 weeks, no abduction (active and passive) x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.*
- *If biceps repair- no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

POST-OP Phase 3

Small tear: 6 weeks

Medium-Large: 12 weeks

Massive: 16 weeks

Goals: Protect the anatomic repair

Restore functional use of the involved UE

Promote dynamic stability and proprioception

PROM goals-flexion 140, ER 50, abduction 80

Continue joint mobilizations as needed to maximize ROM

Restore AROM

Pt education: waist high functional activities no overhead lifting

Suggested exercises:

Shoulder PROM in all directions

Continue joint mobilizations as needed to maximize ROM

Shoulder AAROM and AROM in all directions

Shoulder isometrics in all directions

Shoulder progressive resistive exercises: for rotator cuff and scapular stabilization with focus on shoulder strengthening below 90 degrees.

- Theraband/weights for resistance
- Scapular stabilization activities in varying positions: supine, sitting, standing
- Prone Exercises: scapular row, extension, horizontal abduction and scaption with progressive resistance
- UBE

- Closed chain activities with shoulder below 90 degrees
- *Variance if subscapularis repair- No ER past neutral (active and passive) x 6 weeks, forward elevation in the scapular plane with shoulder in IR only x 6 weeks, no abduction (active and passive) x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.*

POST-OP Phase 4 12-24+ weeks

Goals: Full AROM
Restore function

Small: 12 weeks

Medium-Massive:18 weeks

PROM and stretching for full ROM
Progress strengthening for rotator cuff and scapular muscles in all directions.
Progress as tolerated open chain, closed chain, functional exercises.

Weeks 18-24: ALL

PROM and stretching for full ROM
Progress strengthening for rotator cuff and scapular muscles in all directions.
Progress as tolerated open chain, closed chain, functional exercises.
Conditioning- biking, running, golf (putting, and chipping), swimming, tennis (ground strokes), skiing
Overhead throwing and tennis- ask surgeon before attempting as most should not return to these activities.

24 weeks + ALL:

PROM and stretching for full ROM
Progress strengthening for rotator cuff and scapular muscles in all directions.
Progress as tolerated open chain, closed chain, functional exercises.

If Subscapularis repair- No ER past neutral x 6 weeks, forward elevation in the scapular plane with shoulder in IR only x 6 weeks, no abduction x 6 weeks, no resisted IR x 12 weeks, 6-12 weeks limit ER to 30 degrees.

If biceps repair- *no resisted elbow flexion or forearm supination x 6 weeks, no lifting greater than coffee cup x 6 weeks.*

Responsibilities:

Variances will be communicated by the surgeon directly to the rehabilitation staff.

References:

Clinical Orthopedic Rehabilitation a Team Approach

Fourth Edition Giangarra, Charles, Manske, Robert, Brotzman S. Brent copyright 2018

