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## ROTATOR CUFF REPAIR PROTOCOL

This rehabilitation protocol has been developed for the patient following a rotator cuff surgical procedure. This protocol will vary in length and aggressiveness depending on factors such as:

- Size and location of tear
- Degree of shoulder instability/laxity prior to surgery
- Acute versus chronic condition
- Length of time immobilized
- Strength/pain/swelling/range of motion status
- Rehabilitation goals and expectations

Passive range of motion after a period of relative immobilization is beneficial to help restore motion without placing stress on the repair. The protocol is divided into phases with each phase adaptable based on the individual and special circumstances. The overall goals of the surgical procedure and rehabilitation are to:

- Control pain, inflammation and swelling
- Regain normal shoulder range of motion
- Regain normal upper extremity strength and endurance
- Achieve the level of function based on the orthopedic and patient goals

Physical therapy should be instituted after a period of immobilization that will depend on size of the tear, overall tissue quality and repair. The supervised rehabilitation program is to be supplemented by a home fitness program where the patient performs the given exercises at home or at a gym facility. Important post-op signs to monitor include:

- Swelling of the shoulder and surrounding soft tissue
- Abnormal pain response, hypersensitivity or an increase in night pain
- Severe range of motion limitations
- Weakness in the upper extremity musculature

Return to activity requires both time and clinical evaluation. To safely and most efficiently return to normal or high level functional activity, the patient requires adequate strength, flexibility and endurance. Functional evaluation including strength and range of motion testing is one method of evaluating a patient's readiness return to activity. Return to intense activities following a rotator cuff repair require both a strenuous strengthening and range of motion program along with a period of time to allow for tissue healing. Symptoms such as pain, swelling, or instability should be closely monitored by the patient.

**1st 6 WEEKS POST-OP (8 weeks for large tear)**

Size of RCT	Small	Medium	Large
<i>PROM</i>			
Flexion	Progress as tolerated by pt to 145 degrees	Progress as tolerated by pt to 120 degrees	Progress as tolerated by pt to 90 degrees
ER (scaption)	Progress as tolerated by pt to 75 degrees	Progress as tolerated by pt to 60 degrees	Progress as tolerated by pt to 45 degrees
ABER	Progress as tolerated to 80 degrees	Hold until 6 weeks post-op	Hold until 8 weeks post-op
IR (scaption)	Progress as tolerated	Progress as tolerated	Progress as tolerated
AAROM	Initiate at 4 weeks post-op, not to exceed PROM limits	Wand ER ONLY in scaption plane, gravity assisted progressing to gravity neutral	No AAROM until after 6 weeks post-op (no pulley or wand)
<i>Strengthening</i>			
Isometric ER/IR	Initiate at 4 weeks post-op	Initiate at 6 weeks post-op	Hold until 8 weeks post-op
Scapular retraction	Initiate in sling at 2 weeks post-op	Initiate in sling at 2-3 weeks post-op	Initiate in sling at 2-3 weeks post-op
Shrugs	Initiate 4 weeks post-op unresisted	Initiate at 4-6 weeks post-op unresisted	Initiate at 6 weeks post-op unresisted
Seated/Standing Row	Initiate at 4 weeks post-op unresisted	Hold until 6 weeks post-op	Hold until 8 weeks post-op
Prone Row (saw)	Initiate 2-3 weeks post-op, arm to be raised no higher than parallel to chest, weight of arm only	Initiate at 4 weeks post-op, arm to be raised no higher than parallel to chest, weight of arm only	Initiate at 6 weeks post-op, arm to be raised no higher than parallel to chest, weight of arm only
<i>Other Exercises</i>			
Pendulums	Initiate during 1st week post-op	Initiate during 1st week post-op	Hold if pt has CPM, show pt pendulum position for dressing/grooming during 1st week post-op
Putty Squeeze	Initiate during 1st week post-op	Initiate during 1st week post-op	Initiate during 1st week post-op
Wrist/Hand AROM	Initiate during 1st week post-op w/ arm supported on table	Initiate during 1st week post-op w/ arm supported on table or in sling	Initiate during 1st week post-op w/ arm in sling
Elbow Flex/Ext	Initiate during 1st week post-op w/ arm at side and shoulder in IR	Initiate during 1st week post-op w/ arm in pendulum position	Initiate during 1st week post-op w/ arm in pendulum position, ensure pt maintains a passive shoulder

**6-12 WEEKS POST-OP (14 weeks for large tear)**

Size of RCT	Small	Medium	Large
<i>PROM</i>			
Flexion	Full ROM by 10-12 weeks post-op	Full ROM by 10-12 weeks post-op	Full ROM by 12-14 weeks post-op
ER (scaption)	Full ROM by 10-12 weeks post-op	Full ROM by 10-12 weeks post-op	Full ROM by 12-14 weeks post-op
ABER	Full ROM by 10-12 weeks post-op	Initiate after 6 weeks post-op and progress as tolerated, full ROM by 10-12 weeks post-op	Initiate after 8 weeks post-op and progress as tolerated, full ROM by 12-14 weeks post-op
IR (scaption)	Full ROM by 10-12 weeks post-op	Full ROM by 10-12 weeks post-op	Full ROM by 10-12 weeks post-op
AROM	Initiate at 4-6 weeks post-op or when pt is released from sling, full ROM all planes by 10-12 weeks	Hold until 6 weeks post-op, full ROM all planes by 10-12 weeks	Hold until 8 weeks post-op, full ROM all planes by 12-14 weeks
<i>Strengthening</i>			
Isotonic ER/IR	Neutral or scaption @ 6 weeks post-op progressing to 90/90 position @ 8 weeks post-op	Neutral or scaption @ 6 weeks post-op progressing to 90/90 position @ 8-10 weeks post-op	Neutral or scaption @ 10 weeks post-op progressing to 90/90 position @ 12 weeks post-op
Shrugs	Add resistance at 6 weeks post-op	Add resistance after 6 weeks post-op	Add resistance after 8 weeks post-op
Rows	Add resistance at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 8 weeks post-op

Prone T and Y	Initiate at 6 weeks post-op progressing from unilateral prone on table to bilateral prone on table to bilateral prone over ball	Initiate at 6-8 weeks post-op progressing from unilateral prone on table to bilateral prone on table to bilateral prone over ball	Initiate at 10-12 weeks post-op progressing from unilateral prone on table to bilateral prone on table to bilateral prone over ball
Prone extension w/ ER	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 8 weeks post-op
Bent row or prone row	Add resistance at 6 weeks post-op	Add resistance after 6 weeks post-op	Add resistance after 8 weeks post-op
Upright row	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 10-12 weeks post-op
Horizontal abduction	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 10-12 weeks post-op
Deltoid raises	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 10 weeks post-op
Empty Can	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 10-12 weeks post-op
Bicep curls/tricep ext	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 10 weeks post-op
Push up progression	Initiate at 6 weeks post-op, progress wall --> table --> knees --> floor	Initiate at 8 weeks post-op, progress wall --> table --> knees --> floor	Initiate at 10 weeks post-op, progress wall --> table --> knees --> floor
<i>Neuromuscular Re-ed</i>			
Rhythmic stabilization	Initiate at 6 weeks post-op	Initiate at 6 weeks post-op	Initiate at 8 weeks post-op
Diagonals	Initiate at 6 weeks post-op, progress from supine to standing and unresisted to resisted	Initiate at 6 weeks post-op, progress from supine to standing and unresisted to resisted	Initiate at 8-10 weeks post-op, progress from supine to standing and unresisted to resisted

courtesy Dr. David Lintner and Methodist Sports Rehab