THE ORTHOPEDIC CENTER OF ST. LOUIS
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JOINT RECONSTRUCTION & SPORTS MEDICINE

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

Early passive range of motion is highly beneficial to enhance circulation within the joint to promote healing. The protocol is divided into phases. Each phase is adaptable based on the individual and special circumstances. The **overall goals** of the surgical procedure and rehabilitation are to:

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

The physical therapy should be initiated within the first week and one half to two full weeks post-op. A CPM machine will be used for home range of motion prior to beginning a full therapy program. 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:

- 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

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.

Phase 1: Week 1-6 (8 for large tears)
Rotator Cuff Repair

WEEK	EXERCISE	GOAL
1-6	ROM	Gradual ↑
	Passive ROM in scapular plane	
	Flexion - Progress as tolerated to 145 deg (90 large tears)	
	ER (scaption) - 75 deg (45 large tears)	
	ABER – (start wk 8 large tears) 80 deg	
	Pendulum exercises	
	Elbow (flex/ext) range of motion	
	Initiate rope/pulley week 3-4 post-op	(wk 6 for large tears)
	Initiate passive ER wand exercise week 3-4 not to exceed 45° or ER at 45° abduction	(wk 6 for large tears)
	STRENGTH	
	NO Active Shoulder flexion or abduction allowed in the first 4 weeks	
	Grip strengthening with putty or ball	
	Scapular retraction (initiate in sling wk 2-3)	
	Initiate UBE without resistance at week 4	(wk 6 for large tear)
	Initiate shrugs no weight/resistance at week 4	(wk 6 for large tear)
	Prone row no weight at 4 weeks	(wk 6 for large tear)
	Initiate submaximal isometrics at week 4	(wk 8 for large tear)
	Initiate seated/standing row no resist at 4-6 weeks	(wk 8 for large tear)
	SLING	
	Sling for 4 weeks or as noted by Dr. Grimshaw	(wk 6 for large tears)
	Sling removed to perform exercises above	
	MODALITIES	
	E-stim as needed	
	Ice 15-20 minutes	

GOALS OF PHASE:

- Promote healing of repaired rotator cuff
- Control pain and inflammation
- Gradual increase of ROM
- Independent in HEP
- Delay muscle atrophy

Phase 2: Week 6-12 (8-14 for large tears)
Rotator Cuff Repair

WEEK	EXERCISE	GOAL
6-12	ROM	Full ROM by week 12
	Continue PROM as needed to full	
	Initiate Grade I-II joint mobilization	
	Elbow (flex/ext) range of motion	
	Rope/Pulley (flex/abd/scaption)	
	Wand activities in all planes	
	Initiate supine AROM exercises no resist at 6 wks	(wk 8 for large tear)
	AROM in all planes by 12 weeks	(wk 14 for large tear)
	STRENGTH	
	UBE with resistance at week 6	(wk 8 for large tear)
	Shrugs w/ resistance at week 6	(wk 8 for large tear)
	Bent/prone row w/resistance at 6 weeks	(wk 8 for large tear)
	Isokinetic ER/IR	
	Neutral at week 6	(wk 10 for large tear)
	Progress to 90/90 at week 8-10	(wk 12 for large tear)
	Prone ER with abduction at 6 weeks	(wk 8 for large tear)
	Seated/standing row add resist at 6 weeks	(wk 10 for large tear)
	Initiate upright row at 6 weeks	(wk 10 for large tear)
	Initiate horizontal abduction at 6 weeks	(wk 10 for large tear)
	Initiate deltoid raises at 6 weeks	(wk 10 for large tear)
	Initiate empty can at 6 weeks	(wk 10 for large tear)
	Initiate biceps curls/triceps ext at 6 weeks	(wk 10 for large tear)
	Initiate push-up progression at 6 weeks	(wk 10 for large tear)
	wall-table-knees-floor	
	SLING	D/C wk 6
	Discontinue at week 6	
	MODALITIES	
	E-stim as needed	
	Ice 15-20 minutes	

GOALS OF PHASE:

- Minimize pain and swelling
- Reach full ROM
- Improve upper extremity strength and endurance
- Enhance neuromuscular control
- Normalize arthrokinematics

Phase 3: Week 12-24 (14-30 for large tears)
Rotator Cuff Repair

WEEK	EXERCISE
12-24	ROM
	Continue with all ROM activities from previous phases
	Posterior capsule stretching
	Towel stretching
	Grade III-IV joint mobs as needed for full ROM
	STRENGTH
	Progress strengthening program with increase in resistance and high speed repetition
	Initiate IR/ER exercises at 90° abduction
	Progress rhythmic stabilization activities to include standing PNF patterns with tubing
	Initiate single arm plyotoss
	Initiate military press, bench press, flys, lat pulldowns
	UBE for strength and endurance
	Initiate sport specific drills and functional activities
	Initiate interval throwing program week 16-20
	Initiate light upper body plyometric program week 16-20
	Progress isokinetics to 90° abduction at high speeds
	MODALITIES
	Ice 15-20 minutes

GOALS OF PHASE:

- Full painless ROM
- Maximize upper extremity strength and endurance
- Maximize neuromuscular control
- Initiate sports specific training/functional training