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REHABILITATION GUIDELINES FOR ROTATOR CUFF REPAIRS TYPE II PROTOCOL MEDIUM TO LARGE TEARS (1-5 cm) Aaron M. Bott M.D.

The rehabilitation guidelines are presented in a criterion based progression. General time frames are given for reference to the average, but individual patients will progress at different rates. Specific time frames, restrictions and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. This is a protocol designed for **medium to large** that measured between one to five centimeters at surgery. Progression should be dictated by time as outlined in the protocol as well as the patient's symptoms. If at any time the patient is experiencing significant discomfort with the recommended exercises, the protocol may need to be slowed down.

Phase I Surgery to 2 Weeks

Appointments	Physician: 10-14 days postoperatively
	Physical Therapy: 3-5 days postoperatively 1-2x/week
Guidelines	 Shoulder Immobilizer: Required for soft tissue healing for 6 weeks/Should be worn at all times except for ROM exercises Passive motion only/No active shoulder motion Other exercises may be utilized at the therapist's discretion within the restrictions of the protocol
Range of Motion Exercises	 Active elbow, forearm, and wrist ROM exercises immediately Active cervical spine and scapular ROM exercises immediately Pendulum exercises immediately Passive shoulder ROM exercises in all planes Gentle shoulder mobilizations
Strengthening Exercises	Grip strengthening exercises/Postural exercises
Aerobic Conditioning	 Walking/Stationary bike Avoid impact aerobic conditioning
Modalities	Cryotherapy
Progression Criteria	 2 weeks postop Flexion 100º/ER 30º (arm at side)

ROTATOR CUFF REPAIR TYPE II PROTOCOL Phase II 2 to 6 Weeks Postop Aaron M. Bott M.D.

Appointments	Physician: 10-14 days and 6 weeks postoperatively
	Physical Therapy: 1-2x/week
Guidelines	 Shoulder Immobilizer: Required for soft tissue healing for 6 weeks May be removed for ROM exercises May be removed during the 6th week in safe environments Should be worn at night from weeks 0-6 D/C completely 6 weeks after surgery No active motion x 6 weeks Avoid active abduction until 8 weeks after surgery Other exercises may be utilized at the therapist's discretion within the restrictions of the protocol
Range of Motion Exercises	 Active elbow, forearm, and wrist ROM exercises immediately Active cervical spine and scapular ROM exercises immediately Passive and active-assisted shoulder ROM exercises in all planes -Weeks 3-4: Flexion to 130° ER (arm at side) to 45° Exception: ER only to 20° if subscapularis repair was done IR to 60° -Weeks 5-6: Flexion to 160° ER (45° abduction) to 60° IR (45° abduction) to 60° Gentle shoulder mobilizations as needed
Strengthening Exercises	 Submaximal shoulder isometrics in internal and external rotation in non-provocative positions (exception: no internal rotation isometrics if subscapularis repair was done) Scapular strengthening with arm in neutral Grip strengthening exercises Postural exercises Core strengthening
Aerobic	Walking/Stationary bike
Conditioning	Avoid impact aerobic conditioning
Modalities	Cryotherapy
Progression Criteria	 6 weeks postop Full passive motion

ROTATOR CUFF REPAIR TYPE II PROTOCOL Phase III 6 to 12 Weeks Postop Aaron M. Bott M.D.

Appointments	Physician: 6 weeks and 12 weeks postoperatively
	Physical Therapy: 1x/1-2 weeks
Guidelines	May initiate active motion in Phase III
	Avoid active abduction x 8 weeks
	Avoid external resistance in abduction and scaption x 10 weeks
	Supraspinatus strengthening should begin gradually
	-Avoid pain with cuff strengthening
	-Avoid long lever arms
	Other exercises may be utilized at the therapist's discretion within the
	restrictions of the protocol
Range of Motion	Passive, active-assisted, and active ROM in all cardinal planes – assessing
Exercises	scapular rhythm
	 Sleeper stretches/posterior glides for internal rotation
	Cervical spine and scapular active ROM
	Gentle shoulder mobilizations as needed
Strengthening	 OKC supine shoulder rhythmic stabilizations at 90^o of elevation
Exercises	Gentle CKC shoulder and scapular stabilization drills
	Isotonic internal and external rotation strengthening with therabands or
	weights
	-Begin at 0º abduction
	-Gradually increase abduction as strength improves
	PNF patterns
	Scapular strengthening
	Core strengthening
Aerobic	Trunk and hip mobility exercises
Conditioning	Walking Ctation and hills
Conditioning	Stationary bike No available transformer or jumping
Modalities	No swimming, treadmill, running, or jumping
	Cryotherapy
Progression Criteria	 12 weeks postop Full active motion
	Full IR/ER strength with arm at side

ROTATOR CUFF REPAIR TYPE II PROTOCOL Phase IV 12 Weeks to 6 Months Postop Aaron M. Bott M.D.

Appointments	Physician: 12 weeks and 6 months postoperatively
	Physical Therapy: 1x/2-3 weeks
Guidelines	 Months 3-4: All exercises and activities to remain non-provocative and low to medium velocity Avoid activities where there is a risk of falling/ increased stress applied to the arm Advance proprioceptive and dynamic neuromuscular control retraining Correct postural dysfunctions with work and sport specific tasks Develop strength and control for movements required for work or sport Months 4-5: Progress gradually into provocative exercises by beginning with low velocity, known movement patterns Develop work capacity cardiovascular endurance for work and/or sport Months 5-6: Progress gradually into sport/work specific movement patterns Develop provocative exercises in high velocity, multidirectional movement patterns Other exercises may be utilized at the therapist's discretion within the
	restrictions of the protocol
Range of Motion Exercises	 Posterior glides/sleeper stretches for posterior capsular tightness More aggressive ROM if limitations are still present Stretching for patient specific muscle imbalances
Strengthening Exercises	 Months 3-4: Rotator cuff strengthening at 90° of abduction and in overhead positions Scapular strengthening and dynamic neuromuscular control in OKC and CKC positions Eccentric strengthening Core and lower body strengthening Months 4-6: Rotator cuff strengthening at 90° of abduction and in provocative positions and work/sport specific positions Endurance and velocity specific exercises Core and lower body strengthening
Aerobic Conditioning	 Months 3-5: -Walking, stationary bike, stairmaster, and running. No swimming Months 5-6: -Return to sport-specific conditioning regimen
Modalities	Cryotherapy
Progression Criteria/Return to Work	 Full active ROM Full shoulder/upper extremity strength Dynamic neuromuscular control with multi-plane activities without instability