STANDARD 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 arc 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 may be used for home range of motion prior to beginning a full therapy program in select patients. 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.

- Swelling of the knee or surrounding soft tissue
- Abnormal pain response, hypersensitive
- Abnormal gait pattern, with or without assistive device Limited range of motion
- Weakness in the lower extremity musculature (quadriceps, hamstring)
- Insufficient lower extremity flexibility

Phase 1: Weeks 1-3

Rotator Cuff Repair

Exercise

- **ROM - Goal: Increase**
  - Passive ROM in Scaption < 90°
  - Pendulum exercises

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  - Elbow (flex/cxt) range of motion
  - Initiate rope/pulley weck 3-4 post-op
  - Initiate passive ER wand exercise week 3-4
    - not to exceed 45° of ER at 45° abduction
- **STRENGTH**
  - NO Active Shoulder flexion or abduction allowed in the first 3 weeks
  - Grip strengthening with putty or ball
- **BRACE**
  - Brace for 6 weeks or as noted by Dr. Verdugo
  - Brace 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: Weeks 3-6

Rotator Cuff Repair

Exercise

- **ROM - Goal: Increase**
  - Continue Scaption PROM > 90°
  - Initiate Grade I-II joint mobilization
  - Pendulum exercise
  - Elbow (flex/ext) range of motion
  - Rope/Pulley (flex/abd/scaption)
  - Wand activities in all planes
  - Initiate gentle posterior capsule stretching
  - Initiate gentle IR stretching
- **STRENGTH**
  - Continue grip strengthening as needed
  - Initiate submaximal isometrics at week 4
  - Initiate supine AROM exercises without resistance
  - Initiate UBE without resistance at week 4
  - Initiate scapular stabilizer strengthening-active assisted
    - Shrugs
    - Shoulder retraction
  - Electrical stimulation as needed
  - Ice 15-20 minutes with knee at 0° ext
- **BRACE - Goal: DC wk 3/4**
  - Discharge brace at week 3-4
- **MODALITIES**
  - E-stim as needed
  - Ice 15-20 minutes

Goals of Phase

- Control pain and inflammation
- Initiate light RC muscle contraction
- Gradual increase in ROM
- Initiate light scapular stabilizer contraction

Phase 3: Weeks 6-12

Rotator Cuff Repair

Exercise

- **ROM - Goal: Full ROM 10-12 wks**
  - Continue all ROM from previous phases
  - Posterior capsule stretching
  - Initiate Grade III-IV joint mobs as needed Rope/Pulley (flex, abd, scaption)
  - Towel stretching

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- Wand activities in all planes
- **STRENGTH**
  - Continue with all strengthening from previous phases increasing resistance and repetition
  - Manual rhythmic stabilization exercises at 90° flex
  - Shoulder shrugs with resistance
  - Shoulder retraction with resistance
  - Supine punches with resistance
  - Prone shoulder extension
  - Prone rowing
  - Prone ER with abduction
  - Initiate forward flexion, scaption, empty can
  - Sidelying ER
  - Initiate D1/D2 patterns supine then standing
  - Push-up progression
  - UBE for endurance training
  - Initiate plyotoss at chest then progress to overhead Bicep/Tricep work
  - Isokinetic ER/IR at neutral at week 10-12
- **MODALITIES**
  - E-stim/biofeedback as needed
  - Ice 15-20 minutes

Goals of Phase

- Control pain and inflammation
- Initiate light RC muscle contraction
- Gradual increase in ROM
- Initiate light scapular stabilizer contraction

Phase 4: Week 12-24

Rotator Cuff Repair

Exercise

- **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 & endurance
- Maximize neuromuscular control
- Initiate sports specific training/functional training