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ARTHROSCOPIC ROTATOR CUFF REPAIR PROTOCOL

□ supraspinatus / infraspinatus / subscapularis repair

□ labral repair

□ subacromial decompression

□ distal clavicle resection

□ biceps tenodesis

If biceps tenodesis performed, no resisted elbow flexion for 4 weeks post-op. If anterior labral repair performed no external rotation >30 degrees for 6 weeks post-op.

PHASE ONE (Week 1-6) [1-2 visits per week]

Goals:
- Normalize scapular positioning and mobility
- Reduce pain and swelling in the post-surgical shoulder
- Maintain active range of motion (AROM) of the elbow, wrist and neck
- Minimize loads placed over healing repair protect the surgical repair
- Initiate passive ROM to prevent adhesions and increase circulation

Precautions:
- A sling will be worn for 4 weeks unless instructed otherwise by the physician
- The sling is to be taken off only to perform exercises
- No AROM
- No lifting or supporting body weight with hands
- Relative rest to reduce inflammation

ROM limitations:
Passive and active-assisted ROM ONLY:
Flexion/scaption Progress as tolerated (slow with a massive repair)
ER in scapular plane Not to exceed 45°
IR in scapular plane as tolerated
IR behind back with towel stretch to tolerance (reach same level as opposite shoulder)
Active wrist and elbow full ROM

Exercises:

ROM:
- Pendulums
- AA cane/wand into flexion

- Supine AA flexion
- Seated or supine posterior cuff stretch into horiz adduction
- AA cane into ER at 0°; ER at 45° abduction at 3-4 weeks post-op
- At 3-4 weeks: Initiate rope and pulley – flexion, scaption
- Grade I-II g-h and scapular joint mobs and manual stretching

Strength:

- Hand gripping exercises – putty
- NO active shoulder flexion or abduction in first 6 weeks
- Submax pain-free shoulder isometrics at 0° abduction at 2-3 weeks

PHASE TWO (Week 6-8) [1-2 visits per week]

Goals:

- Gradually restore normal ROM
- Initiate active muscle contractions with proper scapulo-humeral rhythm
- begin to train joint proprioception,
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Precautions:

- Wean out of the sling slowly starting post-op weeks 6-8 based on size of tear, integrity of tissue and repair, and surgeon preference
- No active abduction ROM for 6 weeks to protect repair and no external resistance to abduction and supraspinatus for 8 weeks

ROM Limitations/goal:

Flexion/elevation:	continue to increase gradually
ER in scapular plane:	progress gradually as tolerated
IR in scapular plane:	continue to progress without restrictions

Exercises:

ROM:

- Continue with AAROM exercises from Phase One – pulley, cane/wand
- Initiate towel IR stretch if needed
- Posterior capsule stretch
- G-H joint mobilizations emphasizing post and inf glides.
- Manual stretching should be performed following mobilizations.

Strength:

- Initiate supine AROM with no resistance; progress to partial sitting, sidelying, and standing
- IR/ER with T-band (towel roll between upper arm and thorax)
- Side-step holding t-band at neutral IR/ER for isometric resistance
- flexion, scaption, empty can, deceleration
- Biceps, Triceps with theraband
- Rhythmic stab progressing from supine to sidelying to partial sitting to standing as tolerated
- Scapular strengthening including T-band seated rows, shrugs, punches
- PNF patterns with manual resistance

PHASE THREE (Week 8-12) [2 visits per week]

Goals:

- Progress strengthening
- Restore normal ROM (Full ROM all planes by 10-12 weeks)
- Progress proprioception
- Initiate more functional drills

- The RC muscles are very small; therefore, we use lower intensities to isolate each muscle without recruitment from surrounding larger muscles. Focus on hypertrophy initially by high volume (V= Reps X intensity/weight). Following the hypertrophy phase, strength is the focus lower reps and higher intensities/weight.

Precautions:

- Post-rehabilitation soreness should alleviate within 12 hours of the activities
- No lifting of objects more than 10 pounds with short lever arm
- Lifting only light resistance with long lever arm
- No sudden lifting, jerking, or pushing movements

Exercises:

ROM:

- Continue with previous exercises to gain full ROM
- May need to add chicken wing stretch for ER
- Mobilizations may be more aggressive if needed

Strength:

- Continue with previous T-band and C. column exercises, increasing intensity, sets, and reps as able
- Continue with db therex, increasing sets and reps, intensity up to 7 lbs max
- Initiate push-up progression: wall, table/counter, knees, regular
- Initiate T-band ER at 90/90 position – slow and fast reps
- Initiate prone db therex including scaption at 130° with thumb up, horiz abduction with thumb up, extension with palm down, ER

Week 8:

Initiate two-handed plyometrics including ball toss –chest pass, OH pass, diagonals

Week 10:

Biodex – isokinetics for IR/ER beginning in modified neutral position, progress to 90/90 position in scapular plane

PHASE FOUR (Week 12-24)

Goals:

- regaining full functional strength
- implementing functional or sports specific training, and establishing a progressive gym program for continued strengthening and endurance training.

Precautions:

- Post-rehabilitation soreness should alleviate within 12 hours of the activity
- Avoid activities that result in substitution patterns
- Avoid exercises that generate a large increase in load compared to previous exercises
- Importance of gradual controlled overload to shoulder including appropriate rest/recovery time
- Specific technique and modification for weight lifting and overhead activities
- No body suspension exercises (push-ups, pull-ups, dips) for at least the first 6 months. In the vast majority of patients these exercises are discouraged permanently because of the risk of recurrent rotator cuff tearing.

Exercises:

- Progress isometric and isokinetic strengthening slowly as tolerated.
- UBE high resistance, for endurance
- Progress to one-handed plyos including ball toss, ball on wall
- Eccentric RC strengthening using plyoball, deceleration tosses, T-band
- Large muscle exercises including shoulder press, lat pull-downs, bench press – do not allow elbow to extend past plane of thorax

This protocol provides you with general guidelines for the rehabilitation of the rotator cuff repair shoulder patients. Specific changes in the program will be made by the physician as appropriate for an individual patient. If you have any questions regarding the progress of the patient, the physician should be contacted.