

Department of Orthopaedics and Rehabilitation Penn State University Milton S. Hershey Medical Center

Rehabilitation Protocol

Post-operative treatment for arthroscopic/ open instability repair

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Rehabilitation

The rehabilitation program will be individually tailored by the therapist in close communication with the surgeon considering the extent of the injury, the quality of the surgical repair, and the functional outcome needed for the patient. This care path is a general guideline and will be tailored to meet the needs of each patient.

Phase I: Early Passive / Active Assisted Motion

Timeframe: post-op day 1 through 4-6 weeks

Goals:

- protect surgical repair
- prevent adhesion formation
- obtain early passive shoulder range of motion within appropriate limitations
- pain control
- patient education/independence in home exercise program

Precautions: Throughout all phases of therapy, <u>shoulder extension and medial rotation</u> should <u>not</u> be combined. For example, the patient should not focus on stretching the arm behind the back into medial rotation. This avoids putting stress onto the repaired structures. These movements usually return through normal activities and increased functional use of the arm.

Treatment techniques:

- active range of motion of elbow, wrist, and hand
- Week 1: AAROM external rotation to neutral with arm at patient's side
- Weeks 2-6: ROM exercises will be progressed after Week 1 follow-up appointment with Dr. Armstrong at her discretion
- passive/active assisted shoulder flexion in scapular plane in supine, with assistance of family member. Note: <u>open repair</u> <u>limit fwd elevation to 90 degrees unless</u> <u>otherwise specified</u>
- passive/active assisted lateral rotation with cane or stick with shoulder abducted to 30 degrees in supine. (with towel roll under elbow) Note: MD will specify shoulder lateral rotation ROM precautions
- home use of modalities as needed to assist in pain relief

**** rehabilitation for <u>arthroscopic instability</u> repairs will vary considerably amongst patients and progression of therapy will be dictated on a regular basis by Dr. Armstrong/Dr. Lyons through regularly scheduled clinic appointments****

Phase II: Active assistive/Active range of motion

Timeframe: begin approximately 6 weeks post-op

Goals:

- protect surgical repair
- obtain full painfree passive and active range of motion
- begin to restore proper scapulohumeral mechanics
- independent in ADL's
- gentle strengthening
- patient education/ independence in home exercise program

Treatment techniques:

- continue AAROM especially shoulder elevation with emphasis on correct shoulder biomechanics
- progress to AROM as tolerated in painfree ranges (begin with gravity lessened positions as appropriate)
- add isometrics in painfree ranges (especially flexion, lateral rotation, and medial rotation) strengthen appropriate scapular muscles such as middle and lower trapezius. Progress carefully.
- patient education regarding home exercise program, posture, appropriate modification of activities

Phase III: Strengthening

Timeframe: begin approximately 8 - 12 weeks post-op

(Must check with the surgeon prior to starting resistive strengthening)

Goals:

- restore normal strength (rotator cuff, deltoid, scapular stabilizers)
- restore correct scapulohumeral biomechanics
- gradual return to activity
- patient education / independence in home exercise program

Treatment techniques:

- continue AAROM /AROM as needed
- improve scapulohumeral biomechanics
- scapular muscle strengthening (serratus and trapezius) in appropriate positions depending on strength (sidelying, prone or standing)
- theraband concentric and eccentric within painfree ranges, all planes (Note: keep elbow flexed to 90 degrees for flexion and elevate only to 90 degrees)
- light free weights

aquatherapy as needed

Phase IV: Advanced Functional Strengthening

Timeframe: begin 12 - 16 weeks post-op

Goals:

• restore full functional strength of the rotator cuff and other shoulder musculature. Meet the advanced strength requirements of the patient such as return to a heavy-duty job or high-level athletics.

Treatment techniques:

- closed chain activities (e.g. hands and knees activities, use of BAPS board using upper extremity to weight bear and weight shift on BAPS board)
- PNF patterns (manual, theraband, wall pulleys)
- plyometrics (medicine ball training, etc, perform at less than 90 degrees of elevation) advanced scapular muscle strengthening of serratus and trapezius as needed