



Gregory N. Lervick, MD

POSTSURGICAL CORACOACROMIAL DECOMPRESSION REHABILITATION PROTOCOL

- Acromioplasty**
- Coracoplasty**
- Distal clavicle resection**
- Biceps tenodesis**
- Rotator cuff debridement**

Phase 1: Weeks 0-4

Restrictions

- ROM
 - 140° forward flexion, progress as tolerated to full
 - 40° external rotation, progress as tolerated to full
 - 60° abduction, progress as tolerated to full
- ROM exercises begin with the arm comfortably at the patient's side, progress to 45° of abduction and eventually 90°. Abduction is advanced slowly depending on patient comfort level.
- No abduction and rotation combined movement until 4-6 weeks after surgery
- No resisted motions until 3-4 weeks postop

Immobilization

- Early motion is important
- Sling immobilization for comfort only during the first 3-5 days
- Sling should be discontinued in first week postop
- *If biceps tenodesis, sling for four weeks to protect repair*

Pain control

- Reduction of pain and discomfort is essential for recovery
 - Medications
 - Narcotics generally 10-14 days following surgery
 - NSAIDs for patients with persistent discomfort following surgery
 - Therapeutic modalities
 - Ice, ultrasound, HVGS
 - Moist heat before therapy, ice at end of session

Motion: shoulder

- Goals
 - 140-160° forward flexion
 - 40-60° external rotation
 - 60-90° abduction
- Exercises
 - Begin with pendulum exercises to promote early motion
 - Passive ROM exercises
 - Capsular stretching for anterior, posterior, and inferior capsule, using the opposite arm
 - Active-assisted ROM exercises
 - Shoulder flexion
 - Shoulder extension
 - Internal and external rotation
 - Progress to active ROM as tolerated

Motion: elbow

- Passive – progress to active
 - 0-130°
 - Pronation and supination as tolerated
 - *Active assisted flexion and supination for four weeks if biceps tenodesis*

Muscle strengthening

- Grip strengthening with racquetball, etc.

Criteria for progression to phase 2:

- Minimal pain and tenderness
- Nearly complete motion
- Good shoulder strength (4/5 grade)

Phase 2: Weeks 4-8

Restrictions

- Progress ROM goals to
 - 160-170° forward flexion
 - 45-60° internal rotation (T12-L1)

Immobilization

- None

Pain control

- NSAIDs for patients with persistent discomfort
- Therapeutic modalities

- Ice, ultrasound, HVGS
- Moist heat before therapy, ice at end of session (therapist discretion)

Motion

- Goals
 - 170° forward flexion
 - 60° external rotation
 - 80° abduction
 - 50° internal rotation
- Exercises
 - Increasing active ROM in all directions
 - Focus on prolonged, gentle passive stretching at end ranges to increase shoulder flexibility
 - Utilize joint mobilization for capsular restrictions, especially the posterior capsule

Muscle strengthening

- Rotator cuff strengthening (only three times per week to avoid overuse)
 - Begin with closed-chain isometric strengthening
 - Internal rotation
 - External rotation
 - Abduction
 - Progress to open-chain strengthening with small free weight (dumbbells or other equivalent)
 - Internal rotation
 - External rotation
 - Abduction
 - Forward flexion
 - Extension
- Scapular stabilizer strengthening
 - Closed-chain strengthening exercises
 - Scapular retraction (rhomboids, middle trap)
 - Scapular protraction (serratus anterior)
 - Scapular depression (latissimus dorsi, trapezius, serratus anterior)
 - Progress to open-chain scapular stabilizer strengthening

Note: Do not perform more than 15 repetitions for each set, or more than three sets of repetitions. If this regimen is easy for the patient, then gradually increase the resistance, not the repetitions.

Criteria for progression to phase 3:

- Full painless ROM
- Minimal or no pain
- Strength at least 50% contralateral shoulder
- Stable shoulder on clinical examination – no impingement signs

Phase 3: Weeks 8-12

Goals

- Improve shoulder strength, power, and endurance
- Improve neuromuscular control and shoulder proprioception
- Prepare for gradual return to functional activities

Motion

- Achieve motion equal to contralateral side
- Utilize both active and passive ROM exercises to maintain motion

Muscle strengthening

- Advance strengthening of rotator cuff and scapular stabilizers as tolerated
- 12-15 repetitions for each exercise, for three sets
- Continue strengthening only three times per week to avoid overtraining

Functional strengthening

- Plyometric exercises

Criteria for progression to phase 4:

- Full, painless ROM
- No pain or tenderness
- Shoulder strength that fulfills established criteria
- Satisfactory clinical exam

Phase 4: Weeks 12-16

Goals

- Progressive return to unrestricted activities
- Advancement of shoulder strength and motion with a home exercise program that is taught throughout rehabilitation

Progressive, systematic interval program for returning to sports

- Throwing athletes
- Tennis players
- Golfers
- Begin “thrower’s ten” program for overhead athlete

Maximum improvement is expected by 4-6 months following decompression surgery.

Warning signals

- Loss of motion – especially internal rotation
- Lack of strength progression – especially abduction
- Continued pain – particularly at night

This protocol provides you with general guidelines for the rehabilitation of the patient following decompression of the coracoacromial arch.

Questions regarding the progress of any specific patient are encouraged, and should be directed to Dr. Lervick at **952-944-2519**.

REFERENCE:

Clinical Orthopaedic Rehabilitation, 2nd edition. SB Brotzman, KE Wilk. Mosby 2003.