



# Arthroscopic Subacromial Decompression Protocol

Brian J. White, MD

[www.western-ortho.com](http://www.western-ortho.com)

*The intent of this protocol is to provide guidelines for progression of rehabilitation. It is not intended to serve as a substitute for clinical decision making. Progression through each phase of rehabilitation is based on clinical criteria and time frames as appropriate. These guidelines should be administered under the supervision of a physical therapist.*

## Terms and Definitions:

**Rotator Cuff** – Four tendons that surround the shoulder joint – Supraspinatus, Infraspinatus, Subscapularis, Teres Minor

**Labrum** – The tissue that surrounds the border of the shoulder joint socket to provide depth to the socket and stability to the joint

**ROM** – *Range of Motion*

This defines the amount of mobility in your shoulder

**PROM** – *Passive Range of Motion*

Mobility exercises remain completely passive without the use of muscles to move your shoulder

**AAROM** – *Active Assisted (or partner assisted) ROM*

Range of motion with the assistance of a partner or your other leg and minimal use of the muscles of the surgical leg.

**AROM** - *Active Range of Motion*

Range of motion using the muscles of the surgical shoulder

**POD** – *Post-Operative Day*

**DVT** – *Deep Vein Thrombosis*

This is a blood clot that can form in a deep vein.

**Proprioception**

This is a term to describe joint sense, or your ability to feel how flexed, rotated or extended your shoulder is without looking at it.

**Neuromuscular re-education**

This is the term used to define training your muscles to fire in patterns that mimic function, such as throwing and swinging a golf club or tennis racquet.

**Open Chain**

This describes a position in which your arm can be moved around your body, such as throwing.

**Closed Chain**

An exercise position in which your hand is fixed on the ground or a platform, such as a push-up.

## Phase 1 - Protection Phase (post-op weeks 1- advance as tolerated per criteria)

### Goals:

- Allow initial phase of healing to occur without promoting laxity
- Decrease pain and inflammation
- Restore full active and passive ROM
- Prevent muscular inhibition of scapular muscles

### Restrictions:

- Wear cloth sling for comfort
- No shoulder motion behind back
- No ballistic or forced stretching
- Limit resisted elbow flexion (biceps strengthening) with combined Biceps Tenodesis procedure for 4-6 weeks.
- Keep incisions clean and dry for 2 weeks until they are healed

### Pain and Swelling

- PRICE – Protection, Rest, Ice, Compression, Elevation
  - Use these items together to reduce pain and swelling
  - At minimum, 5-6 times per day for 20-30 minute sessions
  - There is no maximum for time or frequency!
- Pendulums
- ROM exercises (see below)
- Modalities as indicated - Ultrasound, Electric Stimulation, Iontophoreses
- Ankle Pumps – for swelling and DVT prevention
- Walking, Stationary bike (recommended for DVT prevention, increased healing potential and pain)

### Range of Motion

- Partner Assisted PROM in all directions within limitations
- Wand exercises
- Manual therapy as indicated
- Hydrotherapy
  - begin at 2-3 weeks post-op if incisions are healed for light ROM exercises
- Elbow Active ROM (avoid any lifting, especially with a biceps tenodesis procedure)
- Scapular AROM
  - Shrugs
  - Squeezes
- Cervical (Neck), wrist and hand AROM
- AAROM may begin 1 week before AROM is allowed, within prescribed limitations.
  - UBE may be initiated without hiking or impinging

- Pulleys are *not* recommended for PROM or AAROM exercises

### Strength

- Biceps and triceps isometrics (gentle biceps isometrics with biceps tenodesis)
- Scapular isometrics in all directions
- Core musculature isometrics

### Proprioception and neuromuscular control

- Light open chain neuromuscular exercises with perturbations (begin 1 week before AROM is allowed)
- Place hold exercises in passive or active assist manner

## Phase 2 – Initial Strengthening - (Advance as tolerated per criteria)

### **Criteria for advancement to Phase 2**

- Pain free passive ROM
- Minimal pain
- Demonstrates muscle recruitment to allow for advancement to AROM exercises

### **Goals:**

- Continue to restore full AROM and PROM
- Regain AROM muscle strength with normal scapular motion (kinematics)
- Re-establish shoulder proprioception and neuromuscular control
- Increase cuff strength

### **Restrictions:**

- Avoid excessive overhead activity
- Avoid impinging or painful positions

### Pain and swelling

- Continue PRICE regimen for pain and swelling
- PROM exercises
- Modalities as indicated
- Pendulums

### Range of Motion

- Continued PROM exercises (wand and partner assisted) until ROM within set limitations is restored
- Low load prolonged stretches
  - Healing tendons may be stretched where limitations are found.
    - Door jam external rotation (gentle as indicated)

- Supine internal rotation with abduction
- Cross arm stretch
- Sleeper stretch
- TV watcher stretch
- AROM exercises
  - Supine to seated forward elevation progression
  - Supine to side lying external rotation progression
  - Prone row series
  - Blackburn exercise
  - Belly press to prone lift off progression

### Strength

- Initiate rotator cuff isometrics
- Biceps and triceps isometrics (gentle biceps isometrics with biceps tenodesis)
- Scapular isometrics in all directions
- Initial cuff strengthening within prescribed limitations
  - Cord external rotation in 30/30/30 position
  - Cord internal rotation with belly press
  - Forward punch with plus
  - Seated or standing row
  - Resisted biceps and tricep
  - Combined core movements with cuff and scapular exercises

### Proprioception and neuromuscular control

- Advance proprioception exercises to unassisted active
- Increase intensity of open chain perturbation exercises
- Add light closed chain perturbation and neuromuscular exercises

## **Phase 3 – Intermediate / Advanced Strengthening (advance as tolerated per criteria)**

### **Criteria for progression to phase 3:**

- Full AROM and PROM
- 5/5 muscle strength of all cuff muscles
- Demonstrates all initial strength exercises with proper mechanics
- Demonstrates proper scapular muscle recruitment with all active motions and exercises
- No pain or impingement in overhead positions or overhead movements

### **Goals:**

- Restore rotator cuff strength using proper shoulder and scapular mechanics

- Restore shoulder stability and eliminate apprehension
- Optimize neuromuscular control

**Precautions:**

- No overhead lifting

Range of Motion

- Continue PROM and AROM exercises as needed
- Continue with low load prolonged stretched until ROM is fully restored
- Manual therapy as indicated by joint restrictions

Strength

- Continue with initial cord program for cuff strength
- Add advanced resistance exercises
  - External rotation at 45° and 90° ABD without hiking
  - Full can in scapular plane without shoulder hiking
  - Lower trap exercise with dumbbell
  - Begin closed chain strength (push-up plus progression)
  - Strengthening of prime movers if pain free, optimal cuff strength is demonstrated and weight lifting precautions are adhered.
    - Latissimus Dorsi
    - Pectoralis Major
    - Deltoid

Proprioception and neuromuscular control

- Advanced closed chain perturbation exercises
- Advanced open chain neuromuscular exercises
- Plyotramp throws in multiple directions (core and shoulder work)
- Plyometric ball throws with emphasis on eccentric external rotation work
- Initiate interval throwing program for overhead athletes

**Phase 4 – Return to Sport (Post-Operative weeks 16-20)**

**Criteria for progression to phase 4:**

- 5/5 cuff strength in all directions
- No impingement with provocative tests or overhead high level activities
- Appropriate strength and neuromuscular control for high-level activity and/or advanced throwing progressions

**Goals:**

- Maintain full, pain free active ROM
- Improve muscular strength, power, and endurance
- Gradual return to full functional activities and sports
- Continued prevention of apprehension through

**Strengthening**

- Continue ROM and self-capsular stretching for ROM maintenance
- Continue progression of strengthening
- Advance proprioceptive, neuromuscular activities
- Interval sport program for return to sports and/or competition
- Advanced throwing progression for overhead athletes

**Return to Activities**

- Activity and Sport may be cleared when the following criteria are met
  - Optimal cuff strength and endurance is achieved in all directions to support the activity or sport being returned to
  - Overhead activity does not create impinging symptoms