



Arthroscopic Bankart Repair Protocol

Brian J. White, MD
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

Bankart Lesion – An injury to the shoulder where the labrum is stripped from the border of the joint socket

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 racket.

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 1-5)

Initial ROM restrictions will be variable depending on the magnitude of the injury and repair.

Goals:

- Allow initial phase of healing to occur without promoting laxity
- Decrease pain and inflammation
- Restore forward elevation and internal rotation to functional limits
- Maintain external rotation and abduction within limitations
- Prevent muscular inhibition of scapular muscles
- Allow Deltoid to heal

Restrictions:

- Maintain arm in abduction sling / brace, remove only for exercise
- Sleep in abduction sling
- Showering may be done in cloth sling
- No lifting of objects > 1 lb. for approximately 6 weeks
- No shoulder motion behind back
- No ballistic or forced stretching
- Avoid throwers position stretches for 6-10 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 and rolls
- 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 - (Post-Operative weeks 5-10)

Criteria for advancement to Phase 2

- Pain free passive ROM within limitations.
- Demonstrates muscle recruitment to allow for advancement to AROM exercises

Goals:

- Restore full forward elevation, full internal rotation
- Slowly restore external rotation to 90% of maximum
- Slowly restore abduction to 90° in the glenohumeral joint
- For throwing athletes, restoring the total arc of motion to 90% may be considered at 6-12 weeks post-op. This should be done cautiously and without symptoms of apprehension
- Regain AROM muscle strength with normal scapular motion (kinematics)
- Re-establish shoulder proprioception and neuromuscular control
- Increase cuff strength

Restrictions:

- Abduction sling may be discontinued and cloth sling may be used for comfort (within prescribed timelines)
- No lifting > 5 lbs until cleared by MD
- No ballistic or forced stretching
- No supporting of body weight with hands
- No excessive reaching behind the back

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 tissue 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 (post-operative weeks 10-14)

Criteria for progression to phase 3:

- Full passive forward elevation and internal rotation
- External rotation to 90° and abduction to 90°
- Active ROM with minimal compensatory motions
- 4/5 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

Goals:

- Restore rotator cuff strength using proper shoulder and scapular mechanics
- Restore shoulder stability and eliminate apprehension
- Optimize neuromuscular control

Precautions:

- Avoid excessive stretching to anterior capsule
- 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
- Appropriate strength and neuromuscular control for high-level activity and/or advanced throwing progressions
- No apprehension in throwers position

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

- Skiing: 4 months
- Golf: 4-5 months
- Tennis: 4-6 months
- Volleyball: 4-6 months
- Contact Sports (football, hockey, wrestling, lacrosse): 4-6 months if cleared
- Competitive throwing (baseball, football): 4-6 months if cleared