

Anterior Capsular Repair Rehabilitation Program

Methodist Sports Medicine Center, Indianapolis, IN
Department of Physical Therapy

Anterior Capsule reconstruction is a surgical procedure utilized for anterior shoulder instability. This procedure may be performed either through open arthrotomy or arthroscopy. The method of repair is determined by the attending surgeon.

The open arthrotomy procedure is performed as follows: The patient is admitted to the hospital as an outpatient the day of the surgery. Arthroscopic examination of the shoulder is performed under anesthesia. An anterior axillary incision is made extending superiorly toward the coracoid process. The deltopectoral interval is opened, and the cephalic vein is retracted laterally with the deltoid. The short flexor tendons are reflected medially with the pectoralis. The subscapularis is either dissected off the underlying capsule and reflected medially or in certain cases the muscle is split, leaving the insertion intact. The anterior capsule is exposed. The mid portion of the capsule is incised transversely over the glenoid rim directly through the labrum, through the Bankart lesion. The rim of the glenoid is abraded down to the bleeding surface. Three drill holes are placed through the rim of the glenoid. Two sutures are placed through the drill holes and then the inferior capsular flap is advanced superiorly and slightly medially and sutured into the rim of the glenoid. The superior capsular flap is advanced superiorly and sutured. The shoulder stability is examined. The deltoid and pectoralis are allowed to fall back together and routine closure is performed.

The rehabilitation program may be divided into four phases. It is possible to overlap these phases depending on the individual progress of each patient. Phase I is preoperative rehabilitation and education. The goal of Phase II is early healing through immobilization with minimal activity. Phase III consists of shoulder mobility exercises and resistive strengthening while Phase IV focuses on the functional return back to sports or work activities.

Phase I: Pre-operative

With this protocol, patients presenting with an acute or chronic glenohumeral dislocation or subluxation must be seen in physical therapy prior to an anterior capsular repair. The area of focus with the preoperative visit includes preparing the shoulder for surgery and mental preparation of the patient to deal with surgery and the postoperative rehabilitation course.

Patients with glenohumeral instability will be placed on appropriate rehabilitation to decrease pain and restore range of motion and strength. Appropriate patient education of the surgical techniques and postoperative rehabilitation will assist in mental preparation of the patient.

Clinical Goals

- ◆ Restore full active and passive range of motion
- ◆ Restore full strength
- ◆ Decrease the patient's apprehension
- ◆ Restore pain free, functional ADL's
- ◆ Ensure complete understanding of surgery and postoperative rehabilitation
- ◆ Return to modified activities or sports with a brace

Testing

- ◆ Bilateral ROM
- ◆ Assess functional ability and apprehension

Exercises

- ◆ Codman's
- ◆ Wand exercises
- ◆ Thera-tubing
- ◆ Modified weight lifting as tolerated

Phase II: 0 to 3-4 Weeks

Clinical Goals

- ◆ Pain free restricted ADL's with use of an immobilizer

Testing

- ◆ Bilateral ROM

Exercises

- ◆ The patient's shoulder will be protected to allow healing of the repaired anterior capsule. This protection is achieved by using a shoulder immobilizer as needed during the day and during sleep. Patients are allowed waist level and hand to face activities (e.g. eating, writing, bathing, keyboarding) as tolerated
- ◆ Patient will return to see both the physician and therapist at 1 week to have stitches removed and begin rehabilitation for ROM
 - Passive and/or active assisted ROM exercises such as pendulum, pulleys, and wand exercises are performed to patient tolerance
- ◆ The Cryo/Cuff should be used during this phase to control pain and swelling

Clinical Follow-up

- ◆ Patient will return to see both the physician and therapist at approximately 3-4 weeks post-op

Phase IIIa: 4 Weeks to 2 Months

Clinical Goals

- ◆ Active and passive ROM equal to 90% of noninvolved shoulder with good scapular control at 2 months
- ◆ Pain free functional ADL's
- ◆ Begin strengthening

Testing

- ◆ Bilateral ROM
- ◆ Assess functional ability

Exercises

- ◆ The patient will discontinue using the immobilizer at this time. Normal use of the involved extremity for ADL's is encouraged within reason (no overhead lifting, repetitive activities, or fast-jerking motions).
- ◆ It should be strongly encouraged that the patient's main focus in this phase of rehabilitation is to restore range of motion and that strengthening is secondary.
- ◆ Active ROM exercises:
 - Active assistive ROM using wand
 - Gravity assisted pendulum exercise
 - Active shoulder flexibility exercises
- ◆ Range of motion exercises for the shoulder in the "90°-90°" position is not necessarily a contraindication, but is progressed into according to patient tolerance
- ◆ The Patient will begin progressive resistance exercises as tolerated including the following:
 - Theraband exercises; grade of tubing will vary according to the patient's strength and tolerance. The exercise planes will include first internal/external rotation with the elbow tucked at the patient's side then progress to flexion/extension and abduction/adduction to 90°.
 - Dumbbell exercises for the rotator cuff are implemented. Standing flexion and abduction exercises, scaption with internal rotation, side-lying external rotation, and Hughston exercises are performed as tolerated.
- ◆ Emphasis must be made on proper scapular stabilization and control. Accurate assessment of the scapular stabilizing musculature strength and flexibility is critical to proper shoulder function.
- ◆ Isokinetic exercises are discouraged by our physicians
- ◆ The patient may begin light impact activities (i.e. jogging, easy agility) at the end of this phase

Clinical Follow-up

- ◆ The patient will follow-up weekly with the therapist for home exercise program updates during this time
 - The patient should have 90% active and passive ROM (equal to noninvolved side) with good scapular control.

- Adequate strength to perform painfree ADL's and non-contact/non-throwing activities.
- Some, controlled, modified weight lifting may also begin toward the end of this phase.

Phase IIIb: 2 Months to 3 Months

Clinical Goals

- ◆ Active and passive ROM equal to noninvolved shoulder with scapular control at three months
- ◆ Return of normal strength
- ◆ Minimal tenderness and apprehension

Testing

- ◆ Bilateral ROM
- ◆ Assess functional ability

Exercises

- ◆ Part B of this phase is a transition period where the patient finalizes his or her ROM and increases progressive resistance exercises. **However, strength progression is delayed if the patient does not show signs of attaining their goal of full ROM by the end of phase III.**
- ◆ General upper extremity flexibility and stretching exercises to address the patient's ROM deficits are continued with increased intensity
- ◆ Thera-tubing and/or weight lifting exercises are performed for entire shoulder girdle strengthening and stabilization.
- ◆ The patient is cautiously progressed back into a modified weight lifting routine for upper body

Clinical Follow-up

- ◆ The patient will follow-up as needed per the discretion of the therapist for home exercise program updates during this time
 - The patient should have full active and passive ROM (equal to noninvolved side) with good scapular control.
 - The patient should have minimal tenderness, discomfort, and apprehension in the "90°-90°" position.
 - The patient should demonstrate near normal strength, sufficient to begin return to full weight lifting, restricted sports and/or job-related activities.
 - A Cybex strength evaluation will be performed at 3 months for shoulder flexion/extension, abduction/adduction, and IR/ER in the neutral position (120°/s)
 -

Phase IV – 3 to 6 Months

Clinical Goals

- ◆ Equal bilateral AROM and PROM
- ◆ Equal bilateral strength (using hand held dynamometer)

- ◆ Pass functional progression for return to sport with brace

Testing

- ◆ Bilateral ROM
- ◆ Assess functional (sport specific) ability

Exercises

- ◆ The patient will continue with a more aggressive shoulder-stretching program as indicated. This may include self-stretching or partner stretching to address specific ROM deficits.
- ◆ The patient will increase the resistive strengthening program to include heavier weight with any and all lifts as tolerated.
- ◆ Highly sport-specific, functional, high-speed, overhead strengthening will begin in this phase according to the patient's athletic/occupational demands.
- ◆ Implementation of a sport/activity specific functional progression will be utilized depending on the patient's activity level
- ◆ Generally it takes 3-4 four months for return to full activity.
- ◆ A throwing progression for dominant arm athletes will not begin prior to 4 months post-op. This timeframe is highly unpredictable and will vary greatly between each individual patient.
- ◆ Bracing is traditionally used for return to contact or collision sports up to 6 months post-op.

Clinical Follow-up

- ◆ The patient will follow-up monthly or as needed between 3 and 6 months postop
- ◆ The patient will return at 6 months post-op for the final time to see the physician and the therapist. A Cybex strength evaluation will be performed at this time as well as at 1 year post-operative.

DISCLAIMER

These general rehabilitation guidelines are created by physical and occupational therapist for the rehabilitation of various shoulder and elbow pathologies. These are to simply be used as guidelines. This information is provided for informational and educational purposes, only. Specific treatment of a patient should be based on individual needs and the medical care deemed necessary by the treating physician and therapists. The University of Kentucky and The American Society of Shoulder and Elbow Therapists take no responsibility or assume no liability for improper use of these protocols. We recommend that you consult your treating physician or therapist for specific courses of treatment.