

CAPSULOLABRAL REPAIR PROTOCOL

Sports Medicine Service

Notes:

1. Protocol serves as standardized protocol for all anterior-based labral repair and superior labral repairs rehabilitation guidelines
2. All posterior labral-based repairs will follow the “Posterior Labral Repair” Addendum, which instructions supersedes and modifies all Phase 1 through Phase 3 goals, limitations and precautions. Phase 4 and 5 progress with no modifications
3. Suggested therapeutic regimens, home exercise programs, and references for each of the phases of therapy are attached as an addendum and reference.

Phase One

Postoperative Day 1 to Postoperative Week 6

Goals:

1. **Maximally protect surgical repair (capsule, ligaments, labrum, sutures)**
2. **Minimize pain and inflammatory response**
 - a. Minimal use of arm
3. **Educate patient about postoperative precautions**
 - a. Monitor patients use of arm for ADL's/school/work activities that may cause increased pain
 - b. Hypersensitivity in axillary nerve distribution is common
 - c. Educate about environmental/fall risks while wearing sling
4. **Achieve upper extremity staged ROM goals, do not exceed them**
5. **Initiate scapular coordination mobility and control**

Precautions:

1. Sling for six weeks post-surgery
 - a. Typically full time; ALWAYS in public and sleeping
 - b. From 4-6 weeks, may wean during sedentary activity
2. Minimal active motion of shoulder with activities of daily living

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3. Range of Motion limitations:

- a. **NO active ER, extension, ABD or reaching behind the body (0-2 weeks)**
- b. **Passive** Range of Motion Goals (approximate targets for range of motion)

Week	Forward Flexion	ER / Scaption	IR / Scaption	ABD
Week 1-2	<90°	15-20° @ 30°	45° @ 30°	30°
Week 3-4	<90°	30° @ 40°	60° @ 40°	60-80°
Week 5-6	<90°	45° @ 50°	45° @ 60°	≤ 90°

4. Pendulum exercises

- a. Slow progression of pendulums
- b. Supported Pendulums 1-3 weeks; unsupported starting week 4

5. No Running/High-impact activity for aerobic training

Areas of Focus:

1. Range of Motion Exercises
 - a. Shoulder ROM exercises
 - b. Wrist/Elbow/Cervical ROM exercises
 - c. Pendulum exercises
2. Scapular Mobilizations
3. Strengthening
 - a. Sub maximal shoulder isometrics
 - b. Blood Flow Restriction (elbow flexion/extension)
4. Modalities PRN
 - a. Soft tissue/trigger point work to kinetic chain including cervical, scapula and/or forearm
 - b. Cryotherapy
5. Aerobic Conditioning
6. Assign Home Exercise Program

Progression Criteria:

1. 6 weeks from surgery
2. Pain-free Range of Motion:
 - a. FF 90 degrees
 - b. ER: 30 degrees
 - c. Abduction 60 degrees (ability to touch back of head)

Phase Two

Postoperative Week 6 to 9

Goals:

1. Discontinue Sling
2. Achieve staged ROM goals to normalize PROM and AROM at end of phase
 - a. ER at 45°

Week	Forward Flexion	ER	IR	ABD
Week 6-7	To tolerance	45° @ ABD 50°	45° @ ABD 60°	Symmetric
Week 7-9	160° or Symmetric	90/90° ABD or Symmetric	Full at 90° or Symmetric	Symmetric

3. Minimize shoulder pain
4. Begin to increase strength and endurance
5. Increase functional activities

Precautions:

1. Do not perform stretching significantly beyond staged ROM goals during this phase
 - a. Use contralateral range of motion as guide to upper limits of ROM goals
2. Do not perform any stretch to gain end range ER or ER at 90° of abduction
 - a. For significant tightness, ROM increases are shown with bilateral stretching with pre-contraction stretching supporting 'neurological phenomenon.'
3. Do not perform any strengthening exercises that place a large load on the shoulder in the position of horizontal abduction or the combined position of abduction with ER (**no push-ups, bench press, pec fly's**)
 - a. Due to number of variables to manipulate between sport and position, an athletes genetic profile, including postural defects, the characteristics of tissue and the general morphology of the athlete and other aspects of individual athletes all influences quality of movement.
 - b. Combining exercise with manual therapy shows additional benefit
4. Limited weight-bearing trunk stabilization exercises
5. No Running/High-impact activity for aerobic training

Areas of Focus:

1. Range of Motion Exercises
2. Trunk Stabilization
3. Scapula strengthening emphasizing scapula retraction and upward rotators
4. Shoulder strength and endurance progression
 - a. Continue base strengthening/isometrics as needed
 - b. Progressive Resistance Exercises (Rotator Cuff PRE's)
 - c. Increase functional activities

5. Modalities PRN
6. Aerobic Conditioning

Progression Criteria:

1. Achieve ROM goals to normalize PROM and AROM
2. Normal/near-normal scapular stabilization and coordination
3. Pain-free range of motion within stated goals

Phase Three

Postoperative Week 9 to Postoperative Month 3

Goals:

1. Normalize AROM/PROM

WEEK	Forward Flexion	ER	IR	ABD
Week 9	Progress to full	Progress to full	Progress to full	Progress to full
Week 12	WNL	WNL	WNL	WNL

2. Normalize strength, endurance, neuromuscular control, and power
3. Gradual increase of stress to capsulolabral tissues
4. Return to full activities of daily living, work, recreation, and sport
5. Ability to perform a single push-up with good scapular control and no pain

Precautions:

1. Progress all training as tolerated—anticipate patients to be a different status of progression based upon surgery, patient morphology, soft tissue quality, etc.
2. If Range of Motion severely limited, consideration for surgically assisted release needs to be addressed at this time.

Areas of Focus:

1. Range of Motion--Normalize
2. Shoulder Pain Management
3. Trunk Stabilization
 - a. Progress to full weight-bearing stabilization
4. Scapula strengthening emphasizing scapula retraction and upward rotators
5. Shoulder Strengthening
 - a. Add biceps curls start week 9
 - b. Progressive Resistance Exercises
 - c. Increase speed as tolerated

6. Aerobic Conditioning
 - a. Running progression initiated with pain free shoulder motion
7. Adjunctive exercises
 - a. Light PNF, manually or light TheraBand
 - b. Open kinesthetic awareness drills (ROM replication)

Progression Criteria:

1. Restore AROM/PROM
 - a. Normalize AROM/PROM
 - i. Quality of motion
 - ii. Crepitus
 - iii. End feel with overpressure
 - iv. Shoulder IR improved with elbow flexibility and mobility
2. Basic strength for activities of daily living re-established
 - a. MMT minimum 4+/5
 - b. Entire kinetic chain (cervical/thoracic/shoulder/elbow)
3. Scapular kinematics normalized/near-normal
4. Pain well-controlled
 - a. Pain-free with all Phase 2/3 exercises

Phase Four

Postoperative Months 3 to 5

Goals:

1. Initiate Advanced Strengthening
 - a. Shoulder/Scapula/Kinetic Chain
2. Restore normal scapular kinematics
3. Progress running tolerance
4. Initiate exercise/sports/occupational specific activity tolerance

Precautions:

1. Dysfunction of the cervical spine at C5/6 and/or C6/7 may cause referral pain to lateral elbow region
2. Avoid resistance exercises that violate position of safety (hand in front of coronal plane)
3. Anticipate each patient to progress at different rate

Areas of Focus:

1. Exercise principles
 - a. Decrease rest times for endurance
 - b. Integrate functional patterns including ER in ABD
 - c. Increase speed of movements
 - d. Eccentric loading for rotator cuff

- e. Dynamic Stability and Rhythmic Stabilization (increase centration of GH joint)
 - f. Plyometric exercises
 - i. Initiate and progress
- 2. Continue Trunk/Kinetic-Chain Stabilization and Strengthening
 - a. Address any deficits in the kinetic-chain
- 3. Scapular Coordination
 - a. Create strength balance between upper and lower trapezius
- 4. Adjunct Treatments
 - a. Isokinetic/manual strengthening for assessment
 - b. Continue Modalities PRN
- 5. Aerobic Training
 - a. Endurance/cardio training
 - b. Progress to full running
- 6. Return to weight room and strength training

Progression Criteria:

- 1. Assessments of Mechanics
 - i. Functional Movement Screen
 - ii. Isokinetic testing
 - iii. Closed Kinetic Chain Upper Extremity Stability Test (CKCUEST)
 - iv. Y-Balance Test
 - v. One-armed Seated Shot Put
 - vi. Sport Specific Testing
- 2. Restoration of Throwing Mechanics
 - i. Functional Throwing Performance Index
 - ii. Gait/Motion Analysis Lab

Phase Five

Postoperative Month 5 to 8

Goals:

- 1. **Return to Full ADL's, work, recreation, and sport-specific exercises**
 - a. **Overhead Athlete: Initiate Throwing Program**
- 2. **Address Remaining Deficits**
- 3. **Transition to Maintenance strengthening program**
- 4. **Continue Interval Throwing Program (Overhead Athletes)**
- 5. **Continue/Initiate Return to Weight Training Program**

Precautions:

- 1. Avoid resistance exercises that violate position of safety (hand in front of coronal plane)
- 2. Clearance based upon strength, neuromuscular control and coordination, and functional range of motion

- a. Typical range between 5 to 9 months based upon sports-specific activities
- b. May consider addition of abduction brace for collision/contact sports as adjunct

Areas of Focus:

1. Modifications to Progressive Resistance Exercise and base strengthening (manual resistance) as needed
2. Stretching
3. Soft tissue work
4. Interval Throwing Program (overhead athletes)
5. Return to weight room and strength training
 - a. Criteria
 - i. Full, pain free ROM
 - ii. Normal strength in RC and scapular muscles
 - iii. 2-3 times per week
 - iv. High repetitions
 - v. Not to 'muscle failure'
 - vi. Gradual increase of stress to capsulolabral tissues
 - b. Precautions
 - i. Avoid the following
 1. Wide grip pull downs
 2. Behind-the-neck shoulder press
 3. Wide grip bench press
 4. Standing lateral deltoid raises
 5. Triceps press overhead
6. Return to sports-specific training/participation
7. Strength and stability return to steady state after 16 months