

ANTERIOR OPEN CAPSULAR SHIFT REHABILITATION PROTOCOL (Accelerated - Overhead Athlete)

This rehabilitation program's goal is to return the patient/athlete to their activity/sport as quickly and safely as possible, while maintaining a stable shoulder. The program is based on muscle physiology, biomechanics, anatomy and the healing process following surgery for a capsular shift.

The capsular shift procedure is one where the orthopaedic surgeon makes an incision into the ligamentous capsule of the shoulder and pulls the capsule tighter and then sutures the capsule together.

The ultimate goal is a functional stable shoulder and a return to a pre-surgery functional level.

I. Phase I - Protection Phase (Week 0-6)

Goals: Allow healing of sutured capsule
Begin early protected range of motion
Retard muscular atrophy
Decrease pain/inflammation

Week 0-2

Precautions:

1. Sleep in immobilizer for 2 weeks
2. No overhead activities for 4 weeks
3. Wean from immobilizer and into sling as soon as possible (orthopedist or therapist will tell you when) usually 2 weeks

Exercises:

- Wrist/hand ROM and gripping
- Elbow flex/extension and pronation/supination
- Pendulum exercises (non-weighted)
- Rope & Pulley active assisted exercises
 - shoulder flexion to 90 degrees
 - shoulder abduction to 60 degrees
- T-Bar Exercises
 - external rotation to 15-20 degrees with arm in scapular plane
 - internal rotation to 25 degrees with arm abd at 40 degrees
 - shoulder flexion to 90 degrees
- AROM cervical spine
- Isometrics
 - flexors, extensors, ER, IR, ABD
 - rhythmic stabilization drills

Week 2 - 4

Goals: Gradual increase in ROM
Normalize arthrokinematics
Improve strength
Decrease pain/inflammation

1. **Range of Motion Exercises**
 - L-Bar active assisted exercises
 - ER @ 45 degrees ABD to 45 degrees
 - IR @ 45 degrees ABD to 45 degrees
 - Shoulder flex to tolerance
 - Shoulder abduction to tolerance
 - Rope & Pulley flex
 - Pendulum exercises

* All exercises performed to tolerance

 - take to point of pain and/or resistance and hold
 - gentle self capsular stretches
2. **Gentle joint mobilization to re-establish normal arthrokinematics to:**
 - scapulothoracic joint
 - glenohumeral joint
 - sternoclavicular joint
3. **Strengthening exercises**
 - active ROM week 3
 - may initiate tubing for ER/IR at 0 degrees at week 3
 - dynamic stabilization drills
4. **Conditioning program for:**
 - trunk
 - lower extremities
 - cardiovascular
5. **Decrease pain/inflammation**
 - ice, NSAID, modalities

Week 4 - 5

AAROM flexion to tolerance (145 degrees)
IR/ER @ 90 degrees ABD to tolerance
ER at 90 degrees abduction to 60 degrees
IR at 90 degrees abduction to 45-50 degrees
Initiate isotonic (light wt.) strengthening
Gentle joint mobilization (Grade III)

Week 6

AAROM; Continue all stretching exercises
Progress ER/IR @ 90 degrees abduction

- ER at 90 degrees Abd: 75 degrees
- IR at 90 degrees Abd: 65 degrees
- Progress shoulder flexion to 165-170 degrees
- Progress to "throwers ten" program

II. Phase II - Intermediate Phase (Week 7-12)

Goals: Full non-painful ROM at week 8
Normalize arthrokinematics
Increase strength
Improve neuromuscular control

Weeks 7-10

1. **Range of Motion Exercise**
Shoulder flexion to 180 degrees
ER at 90 degrees Abd: 90 degrees
IR at 90 degrees Abd: 65 degrees
Horizontal add/abduction motion
L-Bar active assisted exercises
Continue all exercises listed above
Gradually increase ROM to full ROM week 8
 - ER at 90 degrees Abd: 85-90 degrees
 - IR at 90 degrees Abd: 70-75 degreesContinue self capsular stretches
Continue joint mobilization
2. **Strengthening Exercises**
 - Throwers Ten Program
 - continue dynamic stabilization
 - closed kinetic chain exercises
 - core stabilization drills
3. **Initiate Neuromuscular Control Exercises for Scapulothoracic Joint**
 - scapular muscular training

Week 10-12

1. Continue all exercises listed above
2. Continue all stretching exercises
 - progress ROM to throwers motion
 - ER to 110-115 degrees
 - flexion to 180 degrees
3. Continue strengthening exercises
 - initiate PRE weight training
4. Initiate interval hitting program week 12
5. Initiate golf swing week 10

III. Phase III - Dynamic Strengthening Phase (Week 12-20)

Advanced Strengthening Phase

Week 12-16

Goals: Improve strength/power/endurance
Improve neuromuscular control
Maintain shoulder mobility
Prepare athlete to begin to throw

Criteria to Enter Phase III:

- a. Full non-painful ROM
- b. No pain or tenderness
- c. Strength 70% or better compared to contralateral side
 - 1) Continue all stretching and ROM exercises
 - 2) Continue all strengthening
 - a. throwers ten program
 - 3) Initiate plyometrics
 - a. two hand drills week 12
 - b. one hand drills week 13-14
 - 4) Continue core stabilization drills

Week 16-20

- Continue all exercises above
- Continue stretching and ROM exercises
- Initiate interval sport program (week 16)

IV. Phase IV – Functional Activity Phase (Week 20-26)

Goals: Progressively increase activities to prepare patient for full functional return

Criteria to Progress to Phase IV:

- 1) Full ROM
- 2) No pain or tenderness
- 3) Isokinetic test that fulfills criteria to throw
- 4) Satisfactory clinical exam

Exercise:

- Continue interval sport program
- Continue throwers ten exercises
- Continue plyometric five exercises

Interval Throwing Program:

- 1) Long toss program (Phase I) week 16
- 2) Off the round program (Phase II) week 22
- 3) Simulated game week 30