

Rehabilitation Following Arthroscopic Anterior Shoulder Plication in the Overhead Athlete

I. PHASE I – IMMEDIATE GUARDED MOTION PHASE (Weeks 0-6)

Goals:

- Reduce postoperative pain and inflammation
- Promote capsular healing
- Retard muscular atrophy
- Controlled motion to shoulder

Weeks 0-2:

- Sling and swathe for 4 weeks
- Sleep in sling for 4 weeks
- Remove sling and swathe for exercises
- AAROM with L-bar and PROM
 - Flexion to 70 degrees (week 1)
 - Flexion to 90 degrees (week 2)
 - ER in scapular plane 30 degrees abduction to 5-10 degrees
 - IR in scapular plane 30 degrees abduction to 15-20 degrees
- Pendulum exercises
- Rope and pulley to 70 and 90 degrees
- Isometrics
 - ER/IR at 0 degrees abduction
 - Shoulder flexion
 - Shoulder abduction
 - Scapular retraction
 - Rhythmic stabilization IR/ER
 - Biceps isometrics (if SLAP repair no for 6 weeks)

Modalities:

- Cryotherapy for first 7-10 days

Weeks 3-4:

- Continue use of sling and swathe
- AAROM and PROM exercises
 - Flexion to 90-100 degrees
 - ER at 45 degrees abduction scapular plane to 30 degrees
 - IR at 45 degrees abduction scapular plane to 45 degrees
- Continue pendulum and rope/pulley
- Muscular strengthening exercises
 - Tubing ER/IR at 0 degrees abduction
 - Continue isometrics
 - Prone rowing
 - Prone horizontal abduction (limited ROM)
 - Lower trapezius table lifts
 - Continue manual resistance RS
- Initiate proprioception drills

Weeks 5-6:

- Discontinue sling and swathe (week 4)
- Progress ROM overhead (above 90 degrees abduction)
- AAROM and PROM
 - Flexion to 145 degrees (week 5)
 - Flexion to 160 degrees (week 6)
 - ER at 90 degrees abduction to 70 degrees at week 6
 - IR at 90 degrees abduction to 65 degrees at week 6
- Muscular Training
 - Initiate light isotonics week 5
 - Full can (begin with 1 lb)
 - Shoulder abduction (begin with 1 lb)
 - Sidelying ER
 - Scapular strengthening
 - Continue manual resistance RS
 - Initiate light resistance CKC wall drills
- Continue proprioception drills
- Initiate case stabilization drills

II. PHASE II – CONTROLLED MOTION PHASE (Weeks 7-16)**Goals:**

- Gradually increase ROM and flexibility
- Enhance dynamic stabilization
- Improve muscular strength and endurance
- Gradually increase applied loads

Weeks 7-9:

- Flexibility and ROM exercises
 - ER at 90 degrees abduction to 90 degrees (week 8)
 - IR at 90 degrees abduction to 65 degrees (week 8)
 - Full flexion 180 degrees

Muscular Training:

- Continue rhythmic stabilization drills (ER)
- PNF D2 Flex/Ext with RS
- Throwers Ten Program
 - Progress 1 lb/week if non-painful
- Progress scapular strengthening program
- Push-ups on ball on table RS
- Wall stabilization onto ball into wall
- Tubing ER with manual resistance
- CKC drills
- Proprioception drills

Weeks 10-12:

- Continue all exercises listed above
- Progress ER at 90 degrees abduction to 110-115 degrees at week 12
- Initiate self-capsular stretches
- Initiate 2 hand plyometrics (weeks 10-11)

Weeks 13-16:

- Continue all exercises listed above
- Initiate progressive resistance exercises
 - Bench press (narrow grip)
 - Pull downs (in front of body)
 - Push-ups
 - Seated rowing
 - Pectoralis flies
- Plyometrics one-hand drills/throws (week 14)
- Wall dribble with 2 lb plyoball
- Initiate hitting program (weeks 12-13)

III. PHASE III – ADVANCED STRENGTHENING PHASE (Weeks 16-23)

Goals:

- Progress strengthening, power and endurance
- Enhance dynamic stabilization
- Initiate overhead throwing program

Weeks 16-20:

- Continue all flexibility and ROM exercises
- Continue self-capsular stretches
- Continue ER/IR stretch at 90 degrees abduction
- Throwers Ten Program
- Plyometrics two-hand drills and one-hand drills
- Endurance drills
- Core stabilization drills
- *Initiate interval throwing program (Phase I)

Weeks 21-23:

- Continue all the above exercises
- Initiate interval throwing program (Phase II) at weeks 21-22

IV. PHASE IV – RETURN TO ACTIVITY PHASE (Weeks 24-32)

Goals:

- Progress to unrestricted full activity
- Continue/progress strengthening exercise

Weeks 26-30:

- Stretch and improve ROM and flexibility
- Throwers Ten Program
- Plyometrics two-hand – one-hand
- Progress throwing program

Criteria for Return to Play:

- Full non-painful ROM
- Satisfactory isokinetic test
- Satisfactory clinical exam
- Completion of interval throwing program
- Physician approval