

**Department of Orthopaedic Surgery** Katherine J. Coyner, MD, FAOA Associate Professor Orthopaedic Team Physician UConn Athletics Associate Sports Medicine Fellowship Director

## REHABILITATION FOLLOWING ARTHROSCOPIC SLAP LESION REPAIR or posterior labral in The OVERHEAD THROWER

## I. <u>Phase I – Immediate Postoperative Phase</u> "Restrictive Motion" (Day 1 to Week 6)

<u>Goals</u>: Protect the anatomic repair Prevent negative effects of immobilization Promote dynamic stability Diminish pain and inflammation

#### Week 0-2:

- Sling for 4-6 weeks (slight abduction sling) Physician Decision
- Sleep in immobilizer for 4 weeks
- Elbow/hand ROM
- Hand gripping exercises
- Passive and gentle active assistive ROM exercise
  - Flexion to 70 degrees (Week 2: Flexion to 90 degrees)
  - Elevation in scapular plane to 60 degrees
  - ER/IR with arm in scapular plane
  - ER to 10-15 degrees
  - IR to 45 degrees
  - \*\*NO active ER or Extension or Abduction
- Submaximal isometrics for shoulder musculature
- NO isolated Biceps Contractions
- Scapular muscle training through manual resistance in sling (seated)
- Neuromuscular control drills
- Address posture
- Cryotherapy, Laser, modalities as indicated

#### Week 3-4:

- Continue sling use until Physician or PT advises (Physician Decision)
- Sleep in immobilizer until Week 4
- Continue gentle ROM exercises (PROM and AAROM)
  - Flexion to 90 degrees
  - Abduction to 75-85 degrees
  - ER in scapular plane and 35° abd to 25-30 degrees
  - IR in scapular plane and 35° abd to 55-60 degrees
  - \*\*NOTE: Rate of progression based on evaluation of the patient.
- No active ER, Extension or Elevation
- Initiate rhythmic stabilization drills
- Initiate proprioception training
- Continue scapular training
- Tubing ER/IR at 0 degrees Abduction
- Standing rowing with tubing
- Continue isometrics
- Continue use of cryotherapy

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- Gradually improve ROM
  - Flexion to 145 degrees
    - ER at 45 degrees abduction: 45-50 degrees
    - IR at 45 degrees abduction: 55-60 degrees
    - At 6 weeks begin light and gradual ER at 90° abduction progress to 30-40° ER
  - May initiate stretching exercises
  - May initiate light (easy) ROM at 90 degrees Abduction
  - Continue tubing ER/IR (arm at side)
  - Initiate Active Shoulder Abduction (without resistance)
  - Initiate "Full Can" Exercise (Weight of Arm)
  - Initiate Prone Rowing, Prone Horizontal Abduction
  - NO Biceps Strengthening

## II. <u>Phase II – Intermediate Phase</u>: Moderate Protection Phase (Week 7-14)

<u>Goals</u>: Gradually restore full ROM (week 10) Preserve the integrity of the surgical repair Restore muscular strength and balance

### Week 7-9:

- Gradually progress ROM:
  - Flexion to 180 degrees
    - ER at 90 degrees abduction: 90-95 degrees
  - IR at 90 degrees abduction: 70-75 degrees
  - Continue to progress isotonic strengthening program
  - Continue PNF strengthening (optional)
  - Initiate Throwers Ten Program (week 7-8)

### Week 10-12:

- May initiate slightly more aggressive strengthening
- Progress ER to Throwers Motion
  - ER at 90 degrees abduction: 110-115 in throwers (Week 10-12)
  - Initiate supine cross body stretching at week 12 (lightly)
  - Progress isotonic strengthening exercises
- Initiate Advanced Throwers Ten program at week 12-14
- Continue all stretching exercises
  \*\*Progress POM to functional demands (
- \*\*Progress ROM to functional demands (i.e. overhead athlete)
- Continue all strengthening exercises
- Initiate light plyometric balls throws (2 hand only & close to body) chest pass

## III. Phase III – Minimal Protection Phase (Week 14-20)

<u>Goals</u>: Establish and maintain full ROM Improve muscular strength, power and endurance Gradually initiate functional activities

### Criteria to enter Phase III:

1) Full non-painful ROM

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- 2) Satisfactory stability
- 3) Muscular strength (good grade or better)
- 4) No pain or tenderness

## Week 14-16:

- Continue all stretching exercises (capsular stretches)
- Maintain Throwers Motion (Especially ER)
- Initiate Interval Hitting Program (if appropriate) at week 14
- Continue strengthening exercises:
  - Initiate Advanced Throwers Ten Program
  - Manual Resistance
  - Endurance training
  - Progress plyometric program to 1 hand throws (1 or 2 lb plyoball only)
  - Restricted sport activities (light swimming, half golf swings)

### Week 16-20:

- Continue all exercise listed above
- Continue all stretching
- Continue Advanced Throwers Ten Program
- Continue Plyometric Program
- Initiate interval sport program (throwing, etc)
  \*\*See interval Throwing Program
  - Interval Throwing program Phase I

## IV. Phase IV – Advanced Strengthening Phase (Week 20-26)

<u>Goals</u>: Enhanced muscular strength, power and endurance Progress functional activities Maintain shoulder mobility

### Criteria to enter Phase IV:

- 1) Full non-painful ROM
- 2) Satisfactory static stability
- 3) Muscular strength 75-80% of contralateral side
- 4) No pain or tenderness
- 5) Completed Plyometric program without pain

### Week 20-26:

- Continue flexibility exercises
- Continue isotonic strengthening program
- PNF manual resistance patterns
- Plyometric strengthening
- Progress interval sport programs
  - Progress off the mound throwing once ITP Phase I is completed without problems

## V. Phase V – Return to Activity Phase (Month 6 to 9)

Goals: Gradual return to sport activities

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## Maintain strength, mobility and stability

## Criteria to enter Phase V:

- 1) Full functional ROM
- 2) Muscular performance isokinetic (fulfills criteria)
- 3) Satisfactory shoulder stability
- 4) No pain or tenderness

### Exercises:

- Gradually progress sport activities to unrestrictive participation
- Continue stretching and strengthening program
- Continue Throwers Ten Program, stretches, & plyometrics once return to play

## Criteria To Return to Play:

- Satisfactory clinical exam & cleared by Physician
- ROM which meets criteria
- Strength tests which meets criteria
- Completed plyometric program without pain
- Passed Functional Testing for throwers