

## Internal Impingement Overhead Athlete

### I. **PHASE I – ACUTE**

#### Goals:

- Diminish pain and inflammation
- Improve posterior flexibility
- Re-establish dynamic stability (muscular balance)
- Control functional stresses/strains

#### **Treatment:**

##### **Modalities:**

- Cryotherapy to posterior capsule/cuff
- Iontophoresis (disposable patch)
- Phonophoresis
- Electrical stimulation

##### **Flexibility:**

- Improve IR ROM at 90 degrees abduction
- Enhance horizontal adduction flexibility
- Gradually stretch into ER and flexion

##### **Exercises:**

- Rotator cuff strengthening (esp. ER)
- Scapular strengthening exercises
  - Retractors
  - Depressors
  - Protractors
- Dynamic stabilization exercises (RS)
- Proprioception training
- Closed kinetic chain exercises (wall stabs)

##### **Avoidance:**

- Abstain from throwing (advised by physician)

### II. **PHASE II – INTERMEDIATE PHASE**

#### Goals:

- Progress strengthening exercises
- Restore muscular balance (ER/IR)
- Enhance dynamic stability
- Maintain flexibility and mobility
- Improve core stabilization

**Flexibility:**

- Control stretches and flexibility exercises
  - Especially for IR and horizontal adduction

**Exercises:**

- Progress strengthening exercises
- Thrower's ten exercise program
- Initiate core stabilization program
- Implement lower extremity training
- Initiate dynamic stabilization program
  - ER tubing with end range stabilization
  - Wall stabilization onto ball
  - Push-ups onto ball with stabilization
- May initiate two-hand plyo throws

**III. PHASE III – ADVANCED STRENGTHENING PHASE****Goals:**

- Aggressive strengthening program
- Progress neuromuscular control
- Improve strength, power and endurance
- Initiate light throwing activities

**Exercises:**

- Stretch prior to exercise program
- PNF D2 Flex/Ext with RS
- Sidelying ER manual resistance end range stabs
- Throwers Ten Program
- Dynamic stabilization drills
  - ER tubing with end range stab at 90 degrees abduction
  - Push-ups on ball RS
  - Wall stabs
  - Ball throws into wall with RS
- Plyometrics
  - Two-hand drills
  - One-hand drills (baseball throws)
- Initiate light throwing activities
- Stretch post-exercise

**IV. PHASE IV – RETURN TO ACTIVITY PHASE****Goals:**

- Progress to throwing program
  - Continue strengthening and flexibility exercises
  - Return to competitive throwing
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**Exercises:**

- Stretching and flexibility drills
  - Thrower's Ten Program
  - Plyometric program
  - Dynamic stabilization drills
  - Progress to long toss ITP Phase I
  - Pitchers progress to Phase ITP
  - Gradually progress to competitive throwing
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