

Rehabilitation Guidelines for the Overhead Athlete With Internal Impingement

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

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