

Rehabilitation Guidelines for the Overhead Athlete with Internal Impingement

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)

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

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

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