

REHABILITATION FOLLOWING ARTHROSCOPICROTATOR CUFF DEBRIDEMENT FOR THE OVERHEAD THROWER

I. IMMEDIATE MOTION PHASE (0 – 2 WEEKS)

Goals: Re-establish non-painful range of motion
Retard muscular atrophy
Re-establish dynamic stabilization
Decrease pain/inflammation

A. Week one

Range of motion:

- Passive ROM to tolerance
- Pendulums
- Rope and pulley (non-painful arc of motion)
- L-Bar exercises
 - Elevation in scapular plane
 - ER/IR (begin at 30° abduction; progress to 45° abduction)

Strengthening exercises:

- Isometrics – flexion, extension, abduction, ER, IR, biceps
- Rhythmic stabilization exercises (ER/IR & flex/ext)

Decrease pain/inflammation:

- Ice, NSAIDS, modalities

B. Week two

- Continue all ROM exercises
- May initiate heat prior to exercise
- Initiate ER/IR with L-Bar at 90° abduction
- Progress elevation to full ROM
- Progress isometrics
- Initiate ER/IR tubing at 0° abduction
- Initiate prone rowing

II. INTERMEDIATE PHASE (WEEK 2 – 6)

Goals: Regain & improve muscular strength
Normalize Arthrokinematics
Improve neuromuscular control of the shoulder complex
Diminish pain

Criteria to progress to Phase II:

- 1) Full ROM
- 2) Minimal pain & tenderness
- 3) "Good" MMT of IR, ER, flexion

A. Week 2-3

Exercises:

- Initiate isotonic program (no weight)
 - Shoulder elevation

- Prone rowing
- Prone horizontal abduction
- Sidelying ER
- Shoulder abduction to 90°
- Shoulder extension to neutral

* After one week provided patient has no pain and proper form, initiate exercise with 1 pound weight.

- Normalize arthrokinematics of shoulder complex
- Continue L-Bar ROM
 - Elevation in scapular plane
 - ER/IR at 90° abduction
- Joint mobilization
 - Inferior, posterior, and anterior glides (as needed)
- Initiate neuromuscular control exercises for scapula
- Initiate trunk and lower extremity exercises
- Initiate UE endurance exercises
- Initiate Sleeper stretch

Decrease pain and inflammation

- Continue use of modalities, ice, as needed

* May use heat prior to exercise program

B. Week 4-5

- Progress to Thrower's Ten Program

III: DYNAMIC STRENGTHENING PHASE (WEEK 6-12)

Goals: Improve strength/power/endurance
Improve neuromuscular control
Prepare athlete to return to sport

Criteria to progress to Phase II:

- 1) Full non-painful ROM
- 2) No pain or tenderness
- 3) Strength 70% compared to the contralateral side

A. Week 6-8

Exercises

- Continue isotonic program – Thrower's Ten Exercises
- Progress strengthening exercises
- Continue neuromuscular control exercises for scapular muscles
- Continue endurance exercises
- Initiate 2-Hand plyometric activities (8 weeks)
 - Chest pass
 - Side to side throws

B. Week 9-12

- Continue all exercises
- Initiate one hand plyometric drills (week 12)
 - Wall dribbles
 - Baseball throws
 - Shovel throws

IV: RETURN TO ACTIVITY PHASE (WEEK 13-22)

Goals: Progressively increase activities to prepare for full functional return

Criteria to progress to Phase IV:

- 1) Full ROM
- 2) No pain or tenderness
- 3) Satisfactory muscular strength
- 4) Satisfactory clinical exam

Week 16-20:

- Continue all exercise listed above
- Continue all stretching
- Continue Throwers Ten Program
- Continue Plyometric Program
- Initiate interval Throwing program- week 16
**See interval Throwing Program

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

Goals: 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

Week 20-26:

- Continue flexibility exercises
- Continue isotonic strengthening program
- PNF manual resistance patterns
- Plyometric strengthening
- Progress interval sport programs

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

Goals: Gradual return to sport activities
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
- Gradually return to overhead activities, i.e. sports