

**Dr. John G. Skedros**

**Rehabilitation Protocol After Type III Rotator Cuff Repair (Deltoid-Splitting Procedure): Large to Massive Tear (>5 cm)**

**I. Phase I: Protection Phase (Weeks 0—8)**

- A. Weeks 0—4
  - 1. Brace or sling (as determined by physician)
  - 2. Pendulum exercises
  - 3. Passive range of motion to tolerance
    - Flexion
    - External-internal rotation (shoulder at 45° abduction)
  - 4. Elbow range of motion
  - 5. Hand-gripping exercises
  - 6. Continuous passive motion
  - 7. Submaximal isometrics for abductors, external-internal rotation, elbow flexors
  - 8. Ice and pain modalities
  - 9. Gentle active-assisted range of motion with L bar at week 2
- B. Weeks 4—8
  - 1. Discontinue brace or sling
  - 2. Active-assisted range of motion with L bar in
    - Flexion to 100
    - External-internal rotation to 40°, with shoulder at 45° abduction
  - 3. Continue pain modalities

**II. Phase II: Intermediate Phase (Weeks 8—14)**

*Goals*

Achieve full range of motion (week 12)  
Gradually increase strength  
Decrease pain

- A. Weeks 8—10
  - 1. Active-assisted range-of-motion exercises with L-bar
    - Flexion to tolerance
    - External-internal rotation to tolerance with shoulder at 90° abduction
  - 2. Initiate isotonic strengthening
    - Deltoid to 90
    - External-internal rotation in side-lying
    - Supraspinatus
    - Biceps and triceps
    - Scapulae muscles
- B. Weeks 10—14
  - 1. Full range of motion desired by weeks 12—14
  - 2. Continue all exercises listed above
  - 3. Initiate neuromuscular control exercises

*Note:* If the athlete is unable to elevate the arm without the shoulder “Hiking” (scapulothoracic substitution) before initiating isotonics, maintain the athlete on humeral head stabilization exercises.

**III. Phase III: Advanced Strengthening Phase (Weeks 15—26)**

### *Goals*

Maintain full, nonpainful range of motion  
Improve strength of shoulder complex  
Improve neuromuscular control  
Gradually return to functional activities

#### A. Weeks 15—20

1. Continue active-assisted range-of-motion exercise with L bar in flexion, and external-internal rotation
2. Self-capsular stretches
3. Aggressive strengthening program (isotonic program)
  - Shoulder flexion
  - Shoulder abduction to 90
  - Supraspinatus strengthening
  - External-internal rotation
  - Elbow flexors and extensors
  - Scapulae muscles
4. General conditioning program

#### B. Weeks 21—26

1. Continue all exercises listed above
2. Isokinetic test (modified neutral position) for external-internal rotation at 180 / sec and 300 /sec
3. Initiate interval training program for sport

## **IV. Phase IV: Return-to-Activity Phase (Weeks 24—28)**

### *Goals*

Gradually return to sports activities  
Continue all strengthening exercises  
Continue all flexibility exercises  
Continue progression on interval training program