

## **Dr. John G. Skedros**

### **Accelerated Rehabilitation Protocol After Anterior Capsular Shift**

#### **I. Phase I: Protection Phase (Weeks 0—6)**

##### *Goals*

- Allow healing of sutured capsule
- Begin early protected range of motion
- Retard muscular atrophy
- Decrease pain and inflammation

##### **A. Weeks 0—2**

1. Precautions
  - (a) Sleep in immobilizer for 4 weeks
  - (b) No overhead activities for 4—6 weeks
  - (c) Wean from immobilizer and into sling as soon as possible
2. Exercises
  - (a) Gripping exercises with putty
  - (b) Elbow flexion-extension and pronation-supination
  - (c) Pendulum exercises (nonweighted)
  - (d) Rope-and-pulley active-assisted exercises
    - Shoulder flexion to 90°
    - Shoulder abduction to 60°
  - (e) L-bar exercises
    - External rotation to 15-20° with arm abducted to 40°
    - Shoulder flexion-extension to tolerance
  - (f) Active range of motion for cervical spine
  - (g) Isometrics for shoulder flexors, extensors, external and internal rotators and abductors

##### *Criteria for hospital discharge*

- Shoulder range of motion (active-assisted range of motion): Flexion 90°, abduction 45°, external rotation 40°
- Minimal pain and swelling
- “Good” proximal and distal muscle power

##### **B. Weeks 2—4**

##### *Goals*

- Gradually increase range of motion
- Normalize arthrokinematics
- Improve strength
- Decrease pain and inflammation

1. Range-of-motion exercises
  - (a) L-bar active-assisted exercises
    - External rotation in 40° abduction, progress to 45° abduction
    - Internal rotation in 40° abduction, progress to 45° abduction
    - Shoulder flexion-extension to tolerance
    - Shoulder abduction to tolerance
    - Shoulder horizontal abduction/adduction
  - (b) Rope-and-pulley exercises in flexion-extension

*Note:* All exercises are performed to tolerance. Athlete takes the movement to the point of pain or resistance and holds. *Gentle* self-capsular stretches are also performed.
2. Gentle joint mobilization to re-establish normal arthrokinematics to scapulothoracic, glenohumeral, and sternoclavicular joints
3. Strengthening exercises
  - (a) Isometrics

- (b) May initiate tubing for external-internal rotation at 0° abduction
- 4. Conditioning program for trunk, lower extremities, and cardiovascular system
- 5. Decrease pain and inflammation: Use ice, nonsteroidal anti-inflammatory drugs, modalities

C. Week 5

- 1. Active-assisted range of motion flexion to tolerance
- 2. Internal-external rotation at 45° abduction to tolerance
- 3. Initiate isotonic (light weights) strengthening
- 4. Gentle joint mobilization (grade III)

D. Week 6

- 1. Active-assisted range of motion: Continue all stretching exercises
- 2. Progress external-internal rotation to 90° abduction

## II. Phase II: Intermediate Phase (Weeks 7—12)

### *Goals*

Achieve full nonpainful range of motion at weeks 8—10  
 Normalize arthrokinematics  
 Increase strength  
 Improve neuromuscular control

A. Weeks 7—10

- 1. Range-of-motion exercises
  - (a) L-bar active-assisted exercises
  - (b) Continue all exercises listed above
  - (c) Gradually increase range of motion to full range of motion by weeks 8—10
  - (d) Continue self-capsular stretches
  - (e) Continue joint mobilization
- 2. Strengthening exercises
  - (a) Initiate isotonic dumbbell program for
    - Side-lying external rotation
    - Side-lying internal rotation
    - Shoulder abduction
    - Supraspinatus
    - Latissimus dorsi
    - Rhomboids
    - Biceps curl
    - Triceps curl
    - Shoulder shrug
    - Push-up in chair (serratus anterior)
  - (b) Continue tubing at 0° for external-internal rotation
- 3. Initiate neuromuscular control exercise for scapulothoracic joint

B. Weeks 10—12

- 1. Continue all exercises listed above
- 2. Initiate tubing exercises for rhomboids, latissimus dorsi, biceps, and triceps
- 3. Initiate aggressive stretching and joint mobilization, if needed

## III. Phase III: Dynamic Strengthening Phase (Advanced Strengthening Phase) (Weeks 12—20)

### *Criteria to progress to phase III*

Full, nonpainful range of motion

No pain or tenderness  
Strength 70% or better compared to contralateral side

*Goals*

Improve strength, power, and endurance  
Improve neuromuscular control  
Prepare athlete to begin to throw

*Emphasis of phase III*

High-speed, high-energy strengthening exercises  
Eccentric exercises  
Diagonal patterns

A. Weeks 12-17

1. Exercises
  - (a) Begin Throwers' Ten Exercise Program (Appendix C)
    - Initiate tubing exercises in 90/90 position for internal and external rotation (perform slow- and fast-speed sets)
    - Tubing for rhomboids
    - Tubing for latissimus dorsi
    - Tubing for biceps
    - Tubing for diagonal patterns D2 extension
    - Tubing for diagonal patterns D2 flexion
    - Continue dumbbell exercises for supraspinatus and deltoid
    - Continue serratus anterior strengthening exercises, floor push-ups
  2. Continue trunk and lower extremity strengthening exercises
  3. Continue neuromuscular exercises
  4. Continue self-capsular stretches

B. Weeks 17—20

1. Continue all exercises listed above
2. Initiate plyometrics for shoulder
  - External rotation at 90° abduction
  - Internal rotation at 90° abduction
  - D2 extension plyometrics
  - Biceps plyometrics
  - Serratus anterior plyometrics

**IV. Phase IV: Throwing Phase (Weeks 20—26)**

*Criteria to progress to phase IV*

Full range of motion  
No pain or tenderness  
Isokinetic test that fulfills criteria to throw  
Satisfactory clinical examination

*Goal*

Progressively increase activities to prepare athlete for full functional return

1. Exercise
    - (a) Initiate Interval Throwing Program (Appendix D) at week 20
      - Interval Throwing Program phase II at week 24
    - (b) Continue Throwers' Ten Exercise Program
    - (c) Continue plyometric exercises
- Return to sports at 26-30 weeks