

## OPEN SUBSCAPULARIS REPAIR WITH BICEPS TENODESIS

### I. Phase I – Immediate Postoperative Phase

Goals: Protect the surgical procedure  
Minimize the effects of immobilization  
Diminish pain and inflammation  
Establish baseline proprioception and dynamic stabilization

#### Week 0-2

- Sling for comfort (1 week)
- May wear immobilizer for sleep (2 weeks) \*\*Physician decision
- Elbow/hand ROM
- Gripping exercises
- Passive ROM and active assistive ROM (L-bar)
  - Flexion to tolerance 0-90 degrees week 1, 0-100 degrees week 2
  - ER/IR at 45 degrees abd scapular plane to 0 degrees
- Submaximal isometrics
- No IR isometrics for 3 weeks
- No biceps strengthening, no active elbow flexion
- Rhythmic stabilization
- ER/IR proprioception drills
- Cryotherapy modalities as needed

#### Week 3-4

- Gradually progress ROM
  - Flexion to 120-140 degrees
  - ER at 45 degrees abd scapular plane to 35-45 degrees
  - IR at 45 degrees abd in scapular plane to 45-60 degrees
- Initiate light isotonics for shoulder musculature
  - Tubing for ER
  - Begin IR isometrics
  - Abduction, full can, sidelying ER, prone rowing
  - Dynamic stabilization exercises, PNF

#### Week 5-6

- Progress ROM as tolerated
  - Flexion to 160 degrees (tolerance)
  - ER/IR at 90 degrees abduction:
    - IR to 75 degrees
    - ER to 55 degrees
- Joint mobilization as necessary

- Continue self capsular stretching
- Progress all strengthening exercises
  - Continue PNF diagonal patterns
  - Throwers ten program
  - Continue isotonic strengthening
  - Dynamic stabilization exercises
  - Close kinetic chain exercises
    - Wall stabilization
- Progress ROM to:
  - ER at 90 degrees abduction: 75 degrees
  - IR at 90 degrees abduction: 70-75 degrees
  - Flexion: 165-175 degrees

## **II. Phase II – Intermediate Phase**

Goals: Reestablish full ROM  
 Normalize arthrokinematics  
 Improve muscular strength  
 Enhance neuromuscular control

### **Week 8-10**

- Progress to full ROM (week 8) – flexion 180 degrees, ER at 90 to 90 degrees, IR 75 degrees
- Continue all stretching exercises
  - Joint mobilization, capsular stretching, passive and active stretching
- In overhead athletes, maintain 90-100 degrees ER
- Continue strengthening exercises
  - Throwers ten program (for overhead athlete)
  - Isotonic strengthening for entire shoulder complex
  - May begin light biceps and IR isotonics
  - PNF manual technique
  - Neuromuscular control drills
  - Isokinetic strengthening

### **Week 10-14**

- Continue all flexibility exercises
- Continue all strengthening exercises
  - May begin to increase weight for biceps and IR
- May initiate light isotonic machine weight training (week 16)

## **III. Phase III – Advanced Strengthening Phase (Months 4-6)**

Goals: Enhance muscular strength, power and endurance  
 Improve muscular endurance  
 Maintain mobility

***Criteria to Enter Phase III***

- 1) Full range of motion
- 2) No pain or tenderness
- 3) Satisfactory stability
- 4) Strength 70-80% of contralateral side

**Week 14-20**

- Continue all flexibility exercises
  - Self capsular stretches (anterior, posterior, and inferior)
  - Maintain ER flexibility
- Continue isotonic strengthening program
- Emphasis muscular balance (ER/IR)
- Continue PNF manual resistance
- May continue plyometrics
- Initiate interval sport program (physician approval necessary) week 16

**Week 20-24**

- Continue all exercise listed above
- Continue and progress all interval sport program (throwing off mound)

**IV. Phase IV – Return to Activity Phase (Months 6-9)**

**Goals:** Gradual return to sport activities  
Maintain strength and mobility of shoulder

***Criteria to Enter Phase IV***

- 1) Full non-painful ROM
- 2) Satisfactory stability
- 3) Satisfactory strength (isokinetics)
- 4) No pain or tenderness

***Exercises:***

- Continue capsular stretching to maintain mobility
- Continue strengthening program
  - Either throwers ten or fundamental shoulder exercise program
- Return to sport participation (unrestricted)