

# Pectoralis Major Repair-Rehabilitation

## Precautions:

- Excessive passive ER
- Forceful IR or adduction
- Forceful pushing motions
- Rate of progress based on tissue quality

## 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

### Weeks 0-2

Sling for comfort (4 weeks)

May wear immobilizer for sleep (4 weeks) **\*\*physicians decision**

Elbow/hand ROM

Gripping exercises

Passive ROM and active assistive ROM (L-bar)

- Flexion to tolerance 0-90 degrees (week 1)
- Flexion to tolerance 0-100 degrees (week 2)
- ER at 30 degrees abduction scapular plane to 0 degrees (week 1)
- ER at 30 degrees abduction to 10-15 degrees (week 2)

Isometrics (sub-maximal, sub-painful) ER, Abduction, Flexion, Extension

### Weeks 3-4

Gradually progress ROM

- Flexion to 115 degrees
- ER at 45 degrees abduction scapular plane to 0 degrees
- IR at 45 degrees abduction in scapular plane to 45-60 degrees

Initiate light isotonic for shoulder musculature (No IR strengthening)

Initiate scapular isotonic

- Tubing for ER
- Rhythmic stabilization drills
- Active ROM, full can, abduction, prone rowing

### Weeks 5-6

Progress ROM as tolerance allows

- Flexion to 160 degrees (tolerance)
- ER/IR at 45 degrees abduction:
  - IR to 75 degrees

- ER to 25-30 degrees

Joint mobilization as necessary

Continue self capsular stretching (light)

Initiate isometric IR submaximal

Progress all strengthening exercises

- Continue isotonic strengthening
- Dynamic stabilization exercises
- Wall stabilization

## **Phase II – Intermediate Phase:**

### Goals:

- Reestablish full ROM
- Normalize arthrokinematics
- Improve muscular strength
- Enhance neuromuscular control

### Week 8

Progress ROM as tolerance allows

- ER/IR @ 90 degrees abduction
- ER @ 90 degrees abduction to 45-50 degrees
- IR @ 90 degrees to 70 degrees

### Week 9

Progress ROM as tolerance allow

- ER/IR @ 90 degrees abduction
- ER @ 90 degrees abduction to 75-80 degrees
- Flexion to 170 degrees

Continue all stretching exercises

- Joint mobilization, capsular stretching, passive and active stretching

Continue strengthening exercises

- Throwers ten program (for overhead athlete)
- Isotonic strengthening for entire shoulder complex
- May begin light biceps and IR isotonic
- Neuromuscular control drills
- Isokinetic strengthening

### Week 10

Progress ER @ 90 degrees abduction to 90 degrees

Progress to full flexion

### Week 11-14

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)

### **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 ROM
- 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

#### Weeks 20-24

Continue all exercise listed above

Continue and progress all interval sport program (throwing off mound)

### **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)