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# **Rehabilitation Protocol for Pectoralis Major Repair**

## Phase I: 0-6 weeks after surgery

#### Goals:

- 1. Protect the tendon repair
- 2. Ensure wound healing
- 3. Prevent shoulder stiffness increase passive range of motion
- 4. Decrease pain
- 5. Keep incision clean

#### **Activities:**

- Use your sling during this period. When you are at home and not moving it is okay to come out of the sling as long as you are careful and keep the shoulder safe. Your elbow should be "tucked in" to your side whenever you are out of your sling. Put the sling on when you are outside or in a crowd. Keep the sling on when sleeping at night for the first 4 weeks.
- 2. You may use the hand on your operated arm as long as you do not rotate your shoulder away from your body. You should bend your arm at the elbow and use your fingers and hand such as to reach up and touch your face. Keep your elbow in front of you.
- Begin the phase one exercises. Supine exercises should be done with a small rolled towel placed behind the elbow to avoid shoulder hyperextension and anterior capsular stretch.
- 4. Continue to use your ice: 7 days per week, 4-5 times per day, 15-20 minutes per time.

#### **Exercises:**

#### Weeks 0-2:

- 1. Elbow/wrist/hand ROM
- 2. Gripping exercises
- 3. Passive ROM and active assistive ROM (L-bar)
  - a. Flexion to tolerance 0-90 degrees (week 1)
  - b. Flexion to tolerance 0-100 degrees (week 2)
  - c. ER at 30 degrees abduction scapular plane to 0 degrees (week 1)
  - d. ER at 30 degrees abduction to 10-15 degrees (week 2)
- 4. Isometrics (sub-maximal, sub-painful) ER, Abduction, Flexion, Extension

#### Weeks 3-4:

- 1. Gradually progress ROM
  - a. Flexion to 115 degrees
  - b. ER at 45 degrees abduction scapular plane to 0 degrees
  - c. IR at 45 degrees abduction in scapular plane to 45-60 degrees
- 2. Initiate light isotonics for shoulder musculature (No IR strengthening)
- 3. Initiate scapular isotonics
  - a. Tubing for ER
  - b. Rhythmic stabilization drills
  - c. Active ROM, full can, abduction, prone rowing

## Weeks 5-6:

- 1. Progress ROM as tolerance allows
  - a. Flexion to 160 degrees (tolerance)
  - b. ER/IR at 45 degrees abduction
- 2. IR to 75 degrees
- 3. ER to 25-30 degrees
- 4. Joint mobilization as necessary
- 5. Continue self capsular stretching (light)
- 6. Initiate isometric IR submaximal
- 7. Progress all strengthening exercises
  - a. Continue isotonic strengthening
  - b. Dynamic stabilization exercises
  - c. Wall stabilization

# Phase II: 6-12 weeks after surgery

#### Goals:

- 1. Protect the shoulder and avoid overstressing the repair
- 2. Restore full passive range of motion
- 3. Gradually restore active motion
- 4. Re-establish dynamic shoulder stability

#### **Activities:**

- 1. The sling is no longer necessary. It is advisable to continue to wear it when out in public or large crowds as this may help people to avoid "slapping" you on the shoulder.
- 2. You may now use your operative arm. Avoid having your arm forcefully pulled.

- 3. Continue to avoid heavy lifting or manual labor. You should not lift anything heavier than a coffee cup. Any lifting should be done with weight in front of you.
- 4. Ice as needed for pain control. It is still a good idea to ice after therapy.
- 5. You may start driving at this time as long as you are off of narcotic pain medications and feel safe to do so.

#### **Exercises:**

#### Week 6-7:

1. Continue exercises as from phase I.

#### Week 8:

- 1. Progress ROM as tolerance allows
- 2. ER/IR @ 90 degrees abduction
- 3. ER @ 90 degrees abduction to 45-50 degrees
- 4. IR @ 90 degrees to 70 degrees

#### Week 9:

- 1. Progress ROM as tolerance allow
  - a. ER/IR @ 90 degrees abduction
  - b. ER @ 90 degrees abduction to 75-80 degrees
  - c. Flexion to 170 degrees
- 2. Continue all stretching exercises
  - a. Joint mobilization, capsular stretching, passive and active stretching
- 3. Continue strengthening exercises
  - a. Isotonic strengthening for entire shoulder complex
  - b. May begin light biceps and IR isotonics
  - c. Neuromuscular control drills
  - d. Isokinetic strengthening

## Week 10:

- 1. Progress ER @ 90 degrees abduction to 90 degrees
- 2. Progress to full flexion

#### Week 11-14:

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

## Phase III: 12-24 weeks after surgery

## Criteria to initiate Phase III:

- 1. Full ROM
- 2. No pain or tenderness
- 3. Satisfactory stability
- 4. Strength 75% of contralateral side

## Goals:

- 1. Improve strength of shoulder musculature
- 2. Neuromuscular control of shoulder complex
- 3. Improve functional activities

## **Exercises:**

## Week 14-20:

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

#### Weeks 20-24:

- 1. Continue all exercise listed above
- 2. Continue and progress all interval sport program (e.g. throwing off mound)

## Unrestricted return to sports may begin with:

- 1. Full, non-painful ROM
- 2. Satisfactory stability
- 3. Satisfactory strength
- 4. No pain or tenderness at surgical site