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Pectoralis Major Tendon Repair Rehabilitation Protocol

The intent of this physical therapy protocol is to provide a guideline of postoperative rehabilitation for the clinician to help treat a patient who has undergone a **pectoralis major tendon repair**. It is not intended to be a substitute for clinical decision making. Clinical decision making on a postoperative course include physical exam and findings, individualized progress, and presence of any complications. If a clinician requires assistance with progression of a postoperative patient, please consult the referring surgeon.

Pain Management:
Appropriate pain management includes an attempt at reducing the amount of narcotics and side effects of various pain medications by using various treatment protocols. Adequate preoperative pain measures include:

- **Anesthetic Blocks** - These are provided by an anesthesiologist preoperatively if clinically indicated
- **Local Analgesics** - Soft-tissue anesthetic injections may be used towards the end of the procedure to reduce post-operative pain
- **IV analgesics** - Postoperative pain medications in the acute postoperative phase may be provided with IV analgesics prior to discharge.
- **Oral analgesics** - Postoperative pain medications include opioids (oxycodone and norco), centrally-acting analgesics (acetaminophen or Tylenol), anti-inflammatory medications (NSAIDs such as meloxicam, celebrex, ibuprofen, or naproxen), and alpha-agonists (Tramadol).
- **Cryotherapy -** Ice and cryotherapy may be applied to the affected extremity allows for improvement in pain control.
- **Rest -** Maintain in a sling for 6 weeks when not performing rehabilitation exercises
- **Compression -** Applying an ace-wrap or other compressive device to the operated extremity can reduce swelling and improve swelling

PHASE I - IMMEDIATE SURGICAL POST-OPERATIVE PHASE (1-14 days)
Goals:

- Reduce swelling and manage pain

Evaluation:

- Avoid falls
- **If there is a significant amount of wound drainage, severe pain, or redness to the incision - please return to the orthopaedic surgeon's office for an immediate evaluation**

Therapy:

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- Shoulder immobilizer is applied during surgery and remains in place for 6 weeks **even when sleeping**
- Elbow and wrist active range of motion when shoulder in neutral position at side
- May use stationary bike (must use immobilizer)

PHASE II - MOTION (2 - 4 weeks)

Goals:

- Pain Control
- Minimize postoperative swelling
- Maintain integrity of repair
- Prevent muscle inhibition

Evaluation:

- 2 Week Visit: X-ray obtained to confirm maintenance of fixation.

Precautions

- *No active deltoid contraction 6 weeks*
- *No resisted shoulder internal rotation or adduction for 12 weeks*
- *No internal rotation for 9 weeks post-op*
- *No abduction beyond 60 degrees until 9 weeks postop*
- *No external rotation in neutral position beyond 45 degrees until 9 weeks postop*
- *No external rotation in abducted position until 13 weeks postop.*
- *No quick movements*
- *No excessive stretching*
- *No supporting body weight by hands*
- *No swimming*

Therapy:

- Codman's triangles for shoulder motion
- May do resisted elbow/wrist exercises with light dumbell (<5 lbs) with shoulder in neutral position
- No heavy lifting

PHASE III: - SCAPULAR STRENGTHENING (4-6 weeks)

Goal:

- Supine active range of motion flexion to 90 degrees

Evaluation

- 6 week visit

Therapy

- Continue shoulder immobilizer for 6 weeks
- Shoulder shrugs
- Scapular retraction without resistance

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- Active Assisted motion supine with wand - flexion to 90 degrees

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PHASE IV: MOBILIZATION (6 to 8 weeks)

Goals:

- Active flexion to 120, abduction to 90 degrees

Therapy

- Stop immobilizer
- Active range of motion in pain free motion as tolerated
- Active Range of motion (pulleys, supine wand, wall-climb)
    - Flexion >90 degrees
    - Abduction and external rotation to tolerance
    - Internal rotation and extension (wand behind back)
- Elliptical trainer - only for lower extremity
- Treadmill - walking progression only

Precautions

- *No resisted shoulder internal rotation or adduction for 12 weeks*
- *No internal rotation for 9 weeks post-op*
- *No abduction beyond 60 degrees until 9 weeks postop*
- *No external rotation in neutral position beyond 45 degrees until 9 weeks postop*
- *No external rotation in abducted position until 13 weeks postop*

PHASE V: - EARLY STRENGTHENING (8-12 weeks)

Goal:

- Full active Range of Motion
- 30 wall pushups

Evaluation

- 12 week visit

Therapy

- Active range of motion through full range
- Light theraband - external rotation, abduction, extension
- Prone scapular retraction exercises without weights
- Push-ups on wall - no elbow flexion >90 degrees
- Elliptical trainer - upper and lower extremities
- Pool walking/running - no upper extremity resistive exercises

Precautions

- *No resisted shoulder internal rotation or adduction for 12 weeks*
- *No internal rotation for 9 weeks post-op*
- *No abduction beyond 60 degrees until 9 weeks postop*
- *No external rotation in neutral position beyond 45 degrees until 9 weeks postop*
- *No external rotation in abducted position until 13 weeks postop*

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PHASE VI: - LIGHT STRENGTHENING (3-4 months)

Goal:

- 30 table push-ups
- Run 2 miles at an easy pace

Therapy

- Light theraband exercises - Add internal rotation, adduction, flexion, scaptation.
    - Increase resistance with external rotation, abduction and extension
- Pushup progression - wall to table to chair.
    - No elbow flexion >90 degrees
- Weight training with VERY LIGHT resistance - no flies or pull downs.
    - No elbow flexion >90 degrees
    - Seated row weight machine
    - Cable column
- Ball toss with arm at side using light ball
- stairmaster/treadmill

PHASE VII: - STRENGTHENING (4-6 months)

Goal:

- Normal pectoralis major strenth
- Resume all activities

Evaluation

- 6 month visit

Therapy

- Ball toss overhead
- Push-up progression - chair to regular
- Sit-ups
- Weight training with increased resistance
    - No elbow flexion >90 degrees
    - Avoid Military press, lat pull downs and flies
- May begin swimming
- Begin running progression to track
- Transition to home/gym program

If you have any questions, please do not hesitate to reach out to Dr. Morton