

Orthopedic Surgery • Sports Medicine
Neil Kumar, MD

Pectoralis Major Tendon Repair

“As tolerated” should be understood to “perform with safety” for the repair. Pain, swelling, or other undesirable factors are indicators that you are doing too much too soon. If any of these should occur, decrease your activity level and ice your shoulder.

Ice should be applied to the shoulder for 15 to 20 minutes following each exercise, therapy, or training session. While your shoulder remains swollen, icing should also be done separate from exercise sessions at least three times per day.

All times and exercises are to serve as guidelines only. Progression through the protocol should be based upon criteria as opposed to dates listed and will vary depending on each individual patient. Progress should be agreed upon by the patient and his/her team of providers.

Pre-Operative

- ROM (range of motion) – Full, no restrictions
- Therapeutic Exercise - Learn exercises for post op regimen
 - Pendulums
 - Scapular stabilization
 - Rotator cuff isometrics
 - Passive and active elbow ROM
 - Passive and active wrist ROM
 - Grip squeezes
- Modalities - Cryotherapy (Ice) six to eight times per for 15 to 20 minutes each time

- **Goals for Surgery**
 - Educate on proper sling positioning and management
 - Educate on safe technique for pendulums

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Post-Operative Phase I: Weeks 0 - 2

- Sling – *At all times*
- ROM
 - *Gentle, supine, passive ROM only within a non-painful range and progressed gradually*
 - Forward flexion to 60⁰
 - Abduction to 30⁰
 - External rotation to neutral
 - Elbow and wrist full active and passive ROM
- Therapeutic Exercise
 - Pendulums
 - *Submaximal and subpainful exercises performed in supine position within a non-painful range and progressed gradually*
 - Elbow flexors
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Cardio – Stationary bike without resistance

- **Goals for Phase II:**
 - Protection of repair
 - Reduced swelling
 - Decreasing pain

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Post-Operative Phase II: Weeks 2 - 4

- Sling – *At all times*
- ROM
 - *Gentle, supine, passive ROM and active-assist ROM within a non-painful range and progressed gradually*
 - Forward flexion to 90⁰
 - Abduction to 45⁰
 - External rotation to 30⁰
 - Elbow and wrist full active and passive ROM
- Therapeutic Exercise
 - Pendulums
 - *Submaximal and subpainful exercises performed in supine position within a non-painful range and progressed gradually*
 - Elbow flexors
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Cardio – Stationary bike without resistance

- **Goals for Phase III:**
 - Protection of repair
 - Reduced swelling
 - Decreasing pain

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Post-Operative Phase III: Weeks 4 - 8

- Sling
 - Weeks 4 – 6
 - At home for comfort
 - In public places, crowded areas, or uneven terrain at all times
 - Weeks 6 - 8
 - In public places, crowded areas, or uneven terrain for comfort
- ROM
 - Passive and active-assisted ROM, progress to active ROM after Week 6
 - Forward flexion to 180⁰
 - Abduction to 90⁰
 - External rotation to 90⁰ at 90⁰ abduction
 - Internal rotation to 90⁰ at 0⁰ - 90⁰ abduction
 - Full active and passive elbow and wrist ROM
- Therapeutic Exercise – Continue Phase I exercises
 - *Active-assisted subpainful exercises performed within a non-painful ROM and progressed gradually*
 - L-bar and tubing exercises for ER/IR
 - Initiate humeral head stabilization
 - Periscapular isometrics
 - Progress shoulder isometrics
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
 - Cryotherapy six to eight times per day for 15 to 20 minutes each
- Cardio
 - Stationary bike with resistance
 - Elliptical without arm handles
- **Goals for Phase IV:**
 - Full ROM
 - Repair protection
 - Reduced swelling
 - Decreasing pain

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Post-Operative Phase IV: Weeks 8 – 12

******Include exercises on non-involved side******

- Sling - none
- ROM
 - Full active shoulder, elbow, and wrist ROM
- Therapeutic Exercise – Continue Phase III exercises
 - L-bar and tubing exercises for ER/IR
 - Isotonic dumbbell exercises for rotator cuff, scapular and humeral head stabilizers
 - Isokinetic strengthening in scapular plane
- Modalities
 - NMES (neuromuscular electrical stimulation)
 - HVPC (high volt pulsed current) for swelling reduction
- Cardio
 - Stationary bike with resistance
 - Elliptical
 - UBE (arm bike) with light resistance
 - Treadmill ambulation progressing to treadmill running
- **Goals for Phase V:**
 - Full ROM
 - Decreasing pain
 - Increasing strength and power
 - Improving scapular control



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Post-Operative Phase V: Weeks 12 – 20

- ROM
 - Full active shoulder, elbow, and wrist ROM
- Therapeutic Exercise – Continue Phase IV exercises
 - Progressive strengthening in all planes
 - Plyometrics and progress with closed chain exercises
- Cardio
 - Stationary bike with resistance
 - Elliptical
 - UBE (arm bike) with increasing resistance
 - Treadmill running
- **Goals for Phase V:**
 - Return of strength, power, and control
 - Return flexibility in all planes
 - Return overhead functional activity