



Duke Sports Medicine

Pectoralis Tendon Repair Protocol

Jonathan Dickens, MD

3475 Erwin Rd, Durham NC 27705

P: 919-684-0493

F: 919-681-6357

Professor of Orthopedic Surgery

Sports Medicine: Knee, Shoulder, Hip

PHASE I: Generally 0 - 6 weeks post-op

PHASE I GOALS: Protect Repair, minimize shoulder and upper extremity stiffness

PRECAUTIONS: ***NO** active use of arm x 2 weeks post-op- must **ALWAYS** wear sling, even while sleeping*

SLING: *Wear sling x 6 weeks. After 2 weeks post-op, may d/c sling in "safe" environment only, lifting **NO** more than 1 pound – (i.e., eating, drinking, brushing teeth, etc.)*

ROM Progression Guidance: Start shoulder PROM within 7-14 days. Flexion 50 deg progressing 10 deg per week. External rotation in neutral progressing 5 deg per week. Abduction 30 deg progressing 5-10 deg per week
Manske RC, Prohaska D. Pectoralis major tendon repair post surgical rehabilitation. *N Am J Sports Phys Ther.* 2007;2(1):22-33.

REHABILITATION:
-PROM as per ROM Progression Guidance
~weeks 1-2
-Supine AAROM shoulder flexion
-AROM of the elbow/wrist/hand with shoulder in neutral position
-Submaximal gripping exercises.

~weeks 3-4
-Continue as per for weeks 1-2
-Scapular activation exercises with shoulder in neutral
-Gentle submaximal shoulder isometrics in neutral

FOLLOW-UP: Ortho: ~6 weeks post-op;
Supervised rehabilitation: 1-2 x per week or as needed

PHASE II: Generally 7-12 weeks post-op

PHASE II GOALS: Full shoulder range of motion
Pain free activities of daily living

PRECAUTIONS: ***NO** pushups, heavy lifting, or other sports participation*
***NO** repetitive overhead use of shoulder*
*Limit end ranges of abduction, external rotation, horizontal abduction
*Continue PROM progression guidance progressing to full shoulder ROM

SLING: Discharged as per Ortho guidance

REHABILITATION:

8

~weeks 7- -Continue phase I exercises as needed

-Progress to multi-planar AAROM exercises as per precautions considered
-Begin gradual, low resistance upper extremity endurance training (i.e., UBE)
- Continue shoulder submax isometrics progressing from neutral gradually

~weeks 9-12

-Begin shoulder AROM within pain-free ranges as per precautions
-Begin light resistance isotonics in neutral, flexion, and scapular plane to 90 deg or a pain-free range.
-Begin light scapular stabilization in neutral, supine 90 deg, prone, and against the wall.
- Upper extremity weight bearing progression (Standing at wall or standing at table)

FOLLOW-UP: Ortho: ~3 months post-op;
Supervised rehabilitation: 1-2 x per week or as needed

PHASE III:

Generally 4-6 months post-op

PHASE III GOALS: Pushups at own pace without pain
≥ 90% shoulder strength return
Integrate into general PT/PRT exercise activities.

Sport Specific Goals:

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

PRECAUTIONS: ***NO** participation in contact/collision sports 9 months post-op*
High-weight, low-repetition barbell bench pressing is discouraged indefinitely.
Avoid heavy loads with horizontal abduction and abduction/external rotation combination.

REHABILITATION:

~Months 3-4

- Continue phase II exercises as needed
- Multi-planar progressive resistance exercises in pain-free ranges
- Progress with multi-planar shoulder stabilization exercises
- Progress upper extremity weight bearing into quadruped to four point prone positions
- Push up progression
- Begin side lying exercises, partial range of motion (side lying abduction, ER, IR, extension, flexion, adduction then gradually adding weight)
- Ensure rhomboids, lower and middle trap strong and able to withstand resistance without upper trap compensation
- Strengthen serratus anterior: prone prop, wall push up, etc.
- Rhythmic stabilization exercises in supine, side lying, etc.
- Chest pass, light recreational throwing
- Standing flexion, adduction PRE's with very light free weights (begin with single planes and advance to combined motions)
- Can do resistive pulleys- light weight
- Check grip strength – address elbow and forearm with increased weight
- Continue soft tissue work/joint mobilization

~Months 4-6

- Overhead ball exercises
- Seated: free weights pec fly, lat pull down (front grip to sternum – avoid excessive extension)
- Supine modified pec fly (elbows straight and bent) light resistance 1-2 pounds partial ranges, high repetitions.
- Military press free weights; bench press free weights (very light weight – 10-20 pounds)
- Partial pushups while body weight is supported on ball progressing to full pushups.
- Plyometrics against wall advancing as able

- Make sure full range of motion – continue soft tissue, joint mobilization as necessary.
- Progressive duty specific or sports training exercises (i.e. upper extremity PT or PRT specific activity progression, throwing progression, ect.)

FOLLOW-UP: Ortho: ~6 months post-op;
Supervised rehabilitation: 1-2x per week or as needed

MISCELLANEOUS: After 6 months post-op: Exercises in phase III are continued, gradually increasing intensity & duration as tolerated.
The recommendation is to wait until 9-12 months post-op to return to contact/collision sports or aggressive military training (i.e., airborne school). This time period may be adjusted slightly by the surgeon and therapist according to patient progress.