



GOLDEN STATE ORTHOPEDICS & SPINE

PEC MAJOR REPAIR PROTOCOL

Phase I (Weeks 0-4): Post-Surgical and Protection

Goals:

- Pain and inflammation control
- Protect repair integrity
- Gradually increase PROM

Precautions (Through Week 6)

- Maintain arm in sling for 6 weeks, remove for exercise only
- No lifting, no body weight support with hands
- No shoulder abduction, forward elevation or ER
- No excessive or aggressive stretching or sudden movement

Weeks 0 – 2

- Shoulder sling for 6 weeks
- Elbow, wrist and hand grip and AROM exercises
- Begin pendulum exercises as tolerated
- Stationary bicycle, with shoulder sling on

Weeks 2 – 4

- Continue shoulder sling for 6 weeks
- Begin PROM forward elevation (no greater than 90°)
- Continue previous exercises, pendulums

Phase II (Weeks 5-8): Intermediate and Range of Motion Phase

Goals:

- Supine PROM flexion to 130°
- Attain full PROM and begin AAROM
- Protect repair

Weeks 5 – 6

- Continue shoulder sling for 6 weeks
- Continue previous exercises
- PROM and supine AAROM forward flexion up to 90°, with arm in adduction
- Shoulder shrugs, scapular retraction with no resistance

Weeks 7 – 8

- Discontinue sling and continue previous exercises
- Start AAROM and pulleys as follows:
 - Flexion > 90°
 - Abduction and external rotation to tolerance
 - Internal rotation and extension, arm behind back
- Submaximal isometrics (avoid shoulder adduction, IR)
- Ok to use arm with ADLs and begin gentle AROM
- Treadmill walking and Elliptical trainer without arm motion component



Phase III (Weeks 8-16): Early strengthening

Goals:

- Full and non-painful AROM
- Begin pectoralis major strengthening after 3 months
- Gradual return to functional activities

Weeks 8 – 12

- Continue previous exercises
- AROM, AAROM through full motion
- Light Theraband exercises for external rotation, abduction, extension
- Prone scapular retraction exercises, no weights
- Standing wall push-ups, no elbow flexion >90°
- Elliptical trainer, upper and lower extremities

Months 3 – 4

- Continue previous exercises and maintain full ROM
- Light Theraband exercises: Add internal rotation, adduction, flexion
- Push-up progression – wall → table → chair, no elbow flexion >90°
- Very light resistive weight training, no pec flies, bench press or pull downs
 - No elbow flexion >90°
 - Seated rows
 - Single arm pulleys/cables for IR, forward elevation, adduction
 - Rotator cuff and periscapular strengthening
- Treadmill running
- Ball toss with arm at side, light weight

Phase IV (Months 4-6): Advanced strengthening

Months 4 – 6

Goals: Maintain pain-free full ROM, Advance strengthening, Gradual return to functional activities

- Continue previous exercises with increasing resistance
- Overhead ball toss
- Full running program
- Swimming
- Weight training with increasing resistance
 - No bench press
 - May start pull downs and pec flies with light resistance only

Phase V – Return to full activity

Months 6+

- Full activities as tolerated
- Gradual return to recreational sports and/or strenuous work activities



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Months 6+ (cont)

- Continue previous exercises with increasing weight / resistance
- May perform bench press, light weight and high repetition
 - Advance weight as tolerated
 - Recommend indefinitely avoiding high weight, low repetition