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Physical Therapy Protocol: Pectoralis Major Repair

Philosophy:

The pectoralis major repair protocol is a soft tissue post-op program which allows injured patients to recover as completely as possible. The emphasis for these individuals is progression to work/sport-specific activities as quickly and safely as possible. Our program begins with early rest of the repair, followed by a progression to strengthening and then shoulder function. These are mainly open repairs and so they are progressed slowly to avoid catastrophic failure. Individual variations will occur depending on surgeon input and patient response to treatment. An excellent result cannot be established without the patient following the therapist's instructions.

Phase I, surgery to 4 weeks

OSMS appointments:

Medical appointment at 4-10d with films

Rehabilitation will begin as directed by your physician and as indicated on your rehabilitation order

Rehabilitation Goals:

Protect the muscular repair

Cryotherapy unit to the shoulder: twenty minutes every two hours to reduce swelling

Precautions:

Sling for soft-tissue healing for 6-8 weeks total.

OK for limited removal of the sling in safe environments at 4 weeks

Avoid active shoulder movement in all planes

Suggested Therapeutic Exercises:

Hand gripping

Elbow, forearm and wrist ROM

Cervical spine & scapular active ROM

Desensitization for axillary n distribution

Postural exercises

Shoulder pendulums

Cardiovascular Exercises (with sling on):

Walking

Progression Criteria:

Negative impingement pain or shoulder apprehension



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Phase II, 4-6 weeks

OSMS appointments:

MD appointment at 6 weeks

Rehabilitation appointments every 5-7 days

Rehabilitation Goals:

Begin PROM in all planes, with eventual normal scapulothoracic movement

Begin proprioceptive and dynamic neuromuscular control training

Strengthen shoulder and scap stabilizers

Discontinuation of sling at 6-8 weeks

Precautions:

Avoid shoulder ER and horizontal abduction (by progression, no more than 40° ER allowed)

No swimming, throwing or overhead serves

Avoid activities that have risk for falls

Suggested Therapeutic Exercises:

Resisted forward flexion

Scapular mobility & stabilization exercises (shrugs, rows, etc.) and neuromuscular control

Scapular PNF patterns

Begin table weight shifts progressing UE weight-bearing

Gentle shoulder mobilizations as needed

PROM in all planes-assessing scapular rhythm

Begin grades 1-2 (anterior, posterior distraction) oscillatory joint mobilizations

Core strengthening

Cardiovascular Exercises:

Walking or stationary bike

Impact exercises are only allowed once the patient exhibits full RTC strengthening in neutral position (to avoid distractive forces when landing)

Progression Criteria:

75-100% PROM shoulder

Phase III, 6-8 weeks

OSMS appointments:

Rehabilitation appointments every 5-7 days

Rehabilitation Goals:

Begin AAROM in all planes, with eventual normal scapulothoracic movement

Begin proprioceptive and dynamic neuromuscular control training

Strengthen shoulder and scap stabilizers

Discontinuation of sling at 6-8 weeks



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Precautions:

Shoulder ER allowed beyond 40° ER
No swimming, throwing or overhead serves

Suggested Therapeutic Exercises:

Progress to AROM as tolerated at week 8 with T-bars/pulleys
Submaximal pain-free isometrics (flexion, ext, abduction, ER, horizontal abduction)
PROM in all planes-assessing scapular rhythm
Begin grade 3 sustained joint mobilizations
Progress weight-bearing to quadruped and tripod (1UE+2LE)
Core strengthening

Cardiovascular Exercises:

Walking, Stairmaster, or stationary bike

Progression Criteria:

75-100% AAROM shoulder without pain
Tolerate PRE's for scapular stabilizers and shoulder complex
No reactive effusion

Phase IV, 8-24 weeks

Rehabilitation Goals:

Full shoulder and scapular ROM, all planes
5/5 RTC strength at 90 degrees
5/5 per-scapular strength

Precautions:

Avoid wide grasp bench press
Avoid push-ups with humeral abduction beyond frontal plane
Avoid 1 repetition max for bench press
Avoid IR strengthening until 12 weeks

Suggested Therapeutic Exercises:

Progress to FROM through stretching and grade 3 joint mobilizations
Begin submaximal pec strengthening
Wall push-up progressing to table push-ups/uneven surfaces
Dynamic stabilization
Perturbations
Weight-bearing planks on hands
Closed chain stabilization with narrow base support

Progression Criteria:



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After 12 weeks, ok to progress to TheraBand pec major strengthening, then dumbbell;
progress into UE plyometric wall taps and chest pass

After 18 weeks, ok to progress throwing/OH athletic movements

After 24 weeks, ok to progress bench press and push-up goals as tolerated

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