

## PECTORALIS MAJOR REPAIR POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
<b>PHASE I</b>	0 to 4	<b>SLING:</b> 6 weeks <b>ROM:</b> No ROM x 4 weeks <b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Cervical ROM, basic deep neck flexor activation (chin tucks)</li> <li>• Active hand and wrist ROM</li> <li>• Passive elbow flexion/extension x 6 weeks</li> <li>• Walks, low intensity cardio exercise to promote healing</li> </ul> <b>MANUAL INTERVENTION</b> <ul style="list-style-type: none"> <li>• Effleurage massage to forearm and upper arm and trapezius as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce inflammation</li> <li>• Decrease pain</li> <li>• Postural education</li> </ul>
<b>PHASE II</b>	4 to 6	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Active and passive flexion to 90° x 2 weeks.</li> <li>• External rotation to 0° at 0° abduction x 1 week; 30° ER at 0° and 30° abduction x 1 week.</li> <li>• RC isometrics; gentle ER, extension and abduction only.</li> <li>• Scapular strengthening – prone scapular series (rows and I's). Emphasize scapular strengthening under 90°.</li> <li>• External rotation on side (no resistance).</li> <li>• Cervical ROM as needed to maintain full mobility.</li> <li>• DNF and proper postural positioning with RC/SS exercises.</li> <li>• Low/moderate cardio work. May add elliptical (no arms).</li> </ul> <b>MANUAL INTERVENTION</b> <ul style="list-style-type: none"> <li>• STM – global shoulder and CT junction.</li> <li>• Scar tissue mobilization when incisions are healed.</li> <li>• ST mobilizations.</li> <li>• Gentle CR/RS for ROM and RC-SS activation.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue with sling use until 6 weeks</li> <li>• Postural education</li> <li>• Begin PROM/AROM-full in all planes</li> </ul>
<b>PHASE III</b>	6 to 12	<b>EXERCISE PROGRESSION</b> <ul style="list-style-type: none"> <li>• Continue with combined passive and active program to push full ROM by week 10.</li> <li>• Internal rotation beginning with gentle stick off the back advancing to thumb up back.</li> <li>• Ceiling punch adding weight as tolerated.</li> <li>• 6 direction RC isometrics; gradual loading with adduction and internal rotation.</li> <li>• Advance prone series to include T's and Y's as tolerated.</li> <li>• Supine progressing to standing PNF patterns.</li> <li>• Add seated rows and front lat pulls.</li> <li>• Biceps and triceps PRE.</li> <li>• Scaption; normalize ST arthrokinematics.</li> <li>• Week 8-10 CKC progression: Therapist directed RS and perturbations in quadruped – bilateral progressing to uni-lateral-tri pod position.</li> <li>• Week 10: advance to ½ ROM wall/counter push-ups (light resistance).</li> </ul> <b>MANUAL INTERVENTION</b> <ul style="list-style-type: none"> <li>• STM and Joint mobilization to CT junction, GHJ and STJ as needed.</li> <li>• CR/RS to gain ROM while respecting repaired tissue.</li> <li>• Manual perturbations.</li> <li>• PNF patterns.</li> </ul>	<ul style="list-style-type: none"> <li>• 120° flexion gradually working for full ROM by week 10.</li> <li>• 45° ER at 0°, 45° and 70° abduction gradually working toward full ROM by week 10.</li> <li>• Normalize GH/ST arthrokinematics.</li> <li>• Activate RC/SS with isometric and isotonic progression.</li> </ul>

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<b>PHASE IV</b>	12 to 24	<p><b>EXERCISE PROGRESSION</b></p> <ul style="list-style-type: none"> <li>• Full range of motion all planes – emphasize terminal stretching.</li> <li>• Advance strengthening at or above 90° with prone or standing Y's, D2 diagonal patterns and 90/90 as scapular control and ROM permit.</li> <li>• Continue with closed chain quadruped perturbations; add open chain as strength permits.</li> <li>• Gym strengthening program; gradual progression with pressing and overhead activity.</li> <li>• Progress closed kinetic chain program to include push-up progression; ½ ROM knee then gradually increasing to full push-ups between 4-5 months.</li> <li>• 4 months - Gym program: begin pressing motions with DB and/or straight bar. Begin with light resistance working through ½ to ¾ ROM. Gradually introduce chest flys and overhead pressing again using light resistance through partial ROM; again, advance as strength, control and pain permit.</li> <li>• Initiate plyometric and rebounder drills as appropriate.</li> </ul> <p><b>MANUAL INTERVENTION</b></p> <ul style="list-style-type: none"> <li>• STM and Joint mobilization to CT junction, GHJ and STJ as needed.</li> <li>• CR/RS to gain ROM while respecting repaired tissue.</li> <li>• Manual perturbations.</li> <li>• PNF patterns.</li> </ul> <p><b>RETURN TO PLAY</b></p> <ul style="list-style-type: none"> <li>• Continue to progress RC and scapular strengthening program.</li> <li>• Advance gym strengthening program.</li> <li>• RTS testing for interval programs; microfet dynamometer.</li> <li>• Follow-up examination with the physician (3-4 months) for release to full activity.</li> </ul>	<ul style="list-style-type: none"> <li>• Normalize GH/ST arthrokinematics.</li> <li>• Advance gym strengthening program.</li> <li>• Begin RTS progression.</li> <li>• Evaluation with physician for clearance to full activity.</li> </ul>