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TOTAL SHOULDER ARTHROPLASTY
POST OPERATIVE PROTOCOL

	Time Frame (Weeks)	Guidelines	Goals
PHASE I	0 to 6	**SLING:** x 6 weeks **ROM: P**ROM as instructed by MD **EXERCISE PROGRESSION** • Ice and modalities to reduce pain and inflammation • Cervical ROM, basic deep neck flexor activation (chin tucks) • Instruct on proper head neck and shoulder (HNS) alignment. • Active hand and wrist range of motion. • Biceps PROM/AAROM • Active shoulder retraction • PROM (gradual progression to protect subscapularis) ◊ Flexion: 0°-90° (wks 0-2), 0°-120° (wks 2-4), then to full ◊ External rotation: 0° (wks 0-2), 0°-30° at 0°/30° abduction (wks 2-4), 45° at 0°/45 abduction (wks 4-6), full as tolerated after week 6 ◊ Internal rotation: No IR until 8 weeks post-op • Walks, low intensity cardio exercise to promote healing. **MANUAL INTERVENTION** • STM – global shoulder and CT junction. • Scar tissue mobilization when incisions are healed. • Graded GH mobilizations. • ST mobilizations.	• Reduce inflammation • Decrease pain • Postural education • PROM as instructed
PHASE II	6 to 8	**EXERCISE PROGRESSION** • Progress to full range of motion flexion and external rotation as tolerated. Use a combination of wand, pulleys, wall walks or table slides to ensure compliance. • Gradual introduction to internal rotation using shoulder extensions (stick off back). • Serratus activation; Ceiling punch (weight of arm) many initially need assistance. • Scapular strengthening – prone scapular series (rows and I's). Emphasize scapular strengthening under 90°. • External rotation on side (no resistance). • Gentle therapist directed CR, RS and perturbations to achieve ROM goals. • Cervical ROM as needed to maintain full mobility. • DNF and proper HNS alignment with all RC/SS exercises. • Low to moderate cardiovascular work. • **MANUAL INTERVENTION** • STM – global shoulder and CT junction. • Scar tissue mobilization. • Graded GH mobilizations. • ST mobilizations. • Gentle CR/RS to gain ROM while respecting repaired tissue.	• Discontinue sling. • Gradual return to full ROM. • Postural education. • Focus on posterior chain strengthening.

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PHASE III	8 to 12	**EXERCISE PROGRESSION** • Passive and active program pushing for full flexion and external rotation. • Continue with stick-off-back progressing to internal rotation with thumb up back and sleeper stretch. • Add resistance to ceiling punch. • Sub-maximal rotator cuff isometrics (no pain). • Advance prone series to include T's. • Add rows with weights or bands. • Supine chest-flys providing both strength and active anterior shoulder stretch. • Supine (adding weight as tolerated) progressing to standing PNF patterns. • Biceps and triceps PRE. • Scaption; normalize ST arthrokinematics. • **10 weeks:** add quadruped or counter weight shift. Therapist directed RS and perturbations in quadruped – bilateral progressing to unilateral-tri pod position. **MANUAL INTERVENTION** • STM and Joint mobilization to CT junction, GHJ and STJ as needed. • CR/RS to gain ROM while respecting repaired tissue. • Manual perturbations. • PNF patterns.	• 90% PROM, 80-90% AROM by 12 weeks. • Normalize GH/ST arthrokinematics. • Activate RC/SS with isometric and isotonic progression. • Continue to emphasize posterior chain strengthening but introduce anterior shoulder loading.
PHASE IV	12 to 20	**EXERCISE PROGRESSION** • Full range of motion all planes – emphasize terminal stretching with cross arm, TUB, triceps, TV, sleeper and door/pec stretch. • Begin strengthening at or above 90° with prone or standing Y's, D2 flexion pattern and 90/90 as scapular control and ROM permit. Patient health, physical condition and goals/ objectives will determine if strengthening above 90° is appropriate. • Add lat pulls to gym strengthening program. • Continue with closed chain quadruped perturbations; add open chain as strength permits. Patient overall condition, strength, goals and objectives determine additional advancement. • Initiate plyometric and rebounder drills as appropriate. **MANUAL INTERVENTION** • STM and Joint mobilization to CT junction, GHJ and STJ as needed. • CR/RS to gain ROM while respecting repaired tissue. • Manual perturbations. • PNF patterns.	• Begin RTS progression. • Evaluation with physician for clearance to full activity.
	20 to 24	**RETURN TO PLAY** • Continue to progress RC and scapular strengthening program as outlined. • Advance gym strengthening program. • RTS testing for interval programs (golf, tennis etc.). Microfet testing as appropriate. • Follow-up examination with the physician (6 months) for release to full activity.	