**Rehabilitation Protocol**

**Rotator Cuff Repair (Large-Massive, >3cm)**

**Phase I Maximum Protection (Weeks 0 - 8)**

**Goals**

* Reduce inflammation
* Decrease pain
* Postural education
* PROM as instructed

**Exercise Progression**

* UltraSling for weeks (0-4), then regular sling for weeks (4-8)
* Cervical ROM and basic deep neck flexor activation (chin tucks)
* Instruction on proper head neck and shoulder (HNS) alignment
* Active hand and wrist range of motion
* Encourage walks and low intensity cardiovascular exercise to promote healing.
* **Ice:** continue to ice on a regular basis. At least 20 minutes at a time, 4-5 times per day.
* **Shower:** On post-op day 3
* **Appointment:** your first therapy appointment should be within 5-7 days after your surgery.

**Phase 1-0 | Quiet (Weeks 0 – 4)**

* Quiet in sling with elbow/wrist/hand
* Begin active scapular retraction/protraction exercises with therapist cueing

**Phase 1-1 | Passive (Weeks 5 – 8)** |*Pendulums to warm-up beginning week 5*

* Supine external rotation - 0º - 30º beginning at 5 weeks with progression to full PROM by 8 weeks
* Supine forward elevation - 0º - 90º beginning at 5 weeks with progression to full PROM by 8 weeks
* Progress to upright as tolerated with ER and FE

**Manual Intervention**

* Scar tissue mobilization when incisions are healed
* Graded GH mobilizations

**Phase II Progressive Stretching & Active Motion (Wks 9 - 12)**

**Goals**

* Postural education
* Focus on posterior chain strengthening
* Begin Passive / Active Assisted ROM

**Activities**

* **Sling:** Discontinue sling
* **Ice:** Continue to ice on a regular basis after therapy sessions or increased exertion.
* **Use of the affected arm:** You can actively use your arm for daily living: bathing, dressing, driving, typing on a computer, eating and drinking.

**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. May add elliptical but no running

**Phase II-1 | Active (Week 9-12)** *| Pendulums to warm up and AROM w/ terminal stretch*

* Supine external rotation - after 8 weeks progress GRADUALLY to full
* Supine forward elevation - after 8 weeks progress GRADUALLY to full
* Begin active biceps
* Internal rotation - full (begin behind the back)
* Begin AROM in supine and progress to upright

**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.

**Phase III – Advanced Strengthening & Endurance (Wks 13 - 16)**

**Goals**

* 90% passive ROM, 80-90% AROM by 16 weeks. Larger tears and patients with poor tissue quality will progress more slowly.
* Normalize GH/ST arthrokinematics.
* Activate RC/SS with isometric and isotonic progression.
* Continue to emphasize posterior chain strengthening but introduce anterior shoulder loading.

**Exercise Progression**

* Full painless ROM
* No pain or tenderness on examination

**Phase III-1 | Resisted (Week 13)** *| Pendulums to warm up and continue to prior training*

* External and internal rotation
* Standing forward punch
* Seated rows
* Shoulder shrugs
* Bicep curls

**Phase III-2 Weight Training (Week 16)**

* Keep hands within eyesight, keep elbows bent, no long lever arms
* Minimize overhead activities - below shoulder
* No military press, pull-down behind head, or wide grip bench

**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

**Phase IV – Advanced Strengthening & Endurance (Wks 16 - 28)**

**PRE/PSE (weeks 16-24)**

* 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; very gradual progression with pressing and overhead activity.
* Continue with closed chain quadruped perturbations; add open chain as strength permits
* Progress closed kinetic chain program to include push-up progression beginning with counter, knee then – gradual progression to full as appropriate
* Initiate plyometric and rebounder drills as appropriate

**Return to Sport Program**

* Full painless ROM
* No pain or tenderness on examination

**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

**RETURN TO ACTIVITIES**

Computer As soon as tolerated

Driving When no longer taking narcotics

Elliptical 2 months

Jogging 3 months

Light Swimming 4 months

Golf (Chip & Putt) 5-6 months

Golf (Irons & Driver) 7-8 months

Tennis 7-8 months

Weight training 7-8 months

Skiing 7-8 months

Contact Sports 8 months

\*\*Heavy overhead lifting (military press), pull-down behind head, wide grip bench and dips are discouraged.