Rotator Cuff Repair Rehabilitation Protocol

**Phase I: Post-operative Weeks 0-6**

**Weeks 0-5:**
- No AROM exercise of the shoulder
- Consistent use of sling unless otherwise instructed (weaning starting at week 4 at earliest)
- Pendulum exercises, elbow AAROM and gripping 4x per day starting POD 3
- Ice and TENS for pain control at least 4x per day

**Weeks 5-6:**
- Outpatient physical therapy initiated at week 5
- Wean out of sling entirely by week 6 if not already achieved
- PROM of shoulder to empty end feel with intermittently applied grade II mobilizations in the open packed position of the shoulder. Maximum PROM is:
  - 140° forward flexion
  - 80° abduction
  - 45° external rotation
  - 35° internal rotation
- Scaption pulleys at 10 minute maximum with 2 minute rest provided at 5 minutes
- Pendulum, elbow AAROM and progressive gripping exercises
- Application of ice and TENS for pain control at end of therapy session and at frequency of 4x / day at home.

**Phase II: Post-operative Weeks 6-12**

**Criteria for progression to Phase 2:**
- 6 Weeks of healing has occurred
- Painless PROM to:
  - 120°-140° forward flexion
  - 60° - 80° abduction
  - 40° external rotation

**General formula =** Warm up, strengthening to fatigue (not pain), PROM, ice with E-stim

**Week 6:**
- Upper extremity ergometer - maximum 8 minutes (4 fwd / 4 retro) minimal resistance
- Pulley scaption - 10 minute maximum
- Thera-Band Wall Station exercises. Maximum resistance and repetitions:
  - Rows - Blue 15 x 3
  - Extension from 45° pull - Green 15 x 3
  - External Rotation from 0° - Yellow 15 x 3
Internal Rotation from 0° - Red 15 x 3
Triceps extension - Blue 15 x 3

* Wall walks on finger ladder in scaption - 10 x 3
* PROM into springy end feel - ensure no worse afterwards. Intermittently apply grade II mobilizations in the open packed position of the shoulder. Maximum PROM:
  * 160° Flexion
  * 125° Abduction
  * 65° External Rotation
  * 55° Internal Rotation

* Ice & NMES to Supra/infraspinatus and Mid/Lower trapezius with AROM

**Week 7:**

* Continue exercise and PROM protocol from week 6

* Additional exercises (with maximal weight and repetitions listed):
  * AROM Flexion to 90° with 0-2#, 15 x 3
  * AROM Scaption to 90° with 0-2#, 15 x 3
  * AAROM Dowel shoulder flexion and external rotation 15 sec hold x 10
  * Ice & NMES to Supra/infraspinatus and Mid/Lower trapezius with AROM
  * Initiate ERMI or JAS device authorization if falling behind on PROM targets

**Week 8:**

* Continue exercise protocols from week 6&7 with following changes and/or maximal resistance / repetitions:
  * Upper Extremity Ergometer with moderate resistance x 8 minutes (4 fwd / 4retro)
  * Pulleys 10 minute maximum - 5 min scaption / 5 min abduction (with thumb up)
  * Wall walks on finger ladder with progressive eccentric lowering 15 x 3
  * Thera-Band Wall Station Rows - Blue 15 x 3
  * Thera-Band Wall Station Extension from 45° pull - Blue 15 x 3
  * Thera-Band Wall Station External Rotation from 0° - Red 15 x 3
  * Thera-Band Wall Station Internal Rotation from 0° - Green 15 x 3
  * AROM Flexion to 90° with 2#, 15 x 3
  * AROM Scaption to 90° with 2#, 15 x 3

* Addition of the following exercises (maximal resistance and repetitions noted):
  * Prone Horizontal abduction 0-2#, 15 x 2-3
  * Prone Extension 0-3#, 15 x 2-3
  * Prone Scaption 0-2#, 15 x 2-3
  * Prone Row 3-10#, 15 x 2-3
  * Shoulder depression / modified pushups 20 sec x 10
  * Sleeper stretch 30 sec x 10
  * Supine Serratus Punch 1-5#, 15 x 3

* PROM into springy end feel - ensure no worse afterwards. Intermittently apply grade II mobilizations in the open packed position of the shoulder. Maximum PROM:
  * 165° Flexion
  * 145° Abduction
80° External Rotation
65° Internal Rotation
• Addition of the following AAROM / PROM exercises (maximum reps / time noted - ensure patient is no worse afterwards):
  • Behind the back reaching AROM progressed to strap stretching – 5 min
  • Table flexion and external rotation stretching - 30 seconds x 10 each
• Ice & NMES to Supra/infraspinatus and Mid/Lower trapezius with AROM
• Dispense ERMI or JAS device prn if falling below PROM targets

Weeks 9-12:
• Continue Upper Extremity Ergometer - maximum 10 minutes (5 fwd / 5 retro)
• Continue or D/C pulley and table stretching exercises dependent on PROM and stiffness
• Progress eccentric wall ladder to > 90° flexion and scaption strengthening:
  • AROM Flexion up to 145° with 3-5#, 15 x 3
  • AROM Scaption up to 145° with 3-5#, 15 x 3
• Progress Thera-Band Wall Station Rows and Extension to Cable Column resistance
• Progress Internal and External Rotation to blue resistance band accordingly
• Increase prone strengthening, Serratus strengthening and shoulder depression protocol to fatigue tolerance - max repetitions 20 x 3
• PROM performed until following minimum PROM goals achieved:
  • 165° Flexion and scaption
  • 80° External rotation
  • 75° Internal rotation
• Continue behind the back strap / sleeper stretching prn.
• Potential additional Thera-Band Exercises:
  • PNF D2 Flexion
  • 3-way shoulder progression (cheerleader exercises)
• Ice after exercise (D/C TENS and NMES stimulator)

Phase III: Post-operative Weeks 12+

Weeks 12+
• Progression of resistance and / or repetitions of entire week 9-12 protocol with the exception of PROM (unless clinically indicated)
• Addition of the following functional activities to progress to RTW requirements (baseline established with observed effort and age appropriate HR measurements plus 5-10# per week increase):
  • Floor to Waist lifting
  • Horizontal Carry
  • Waist to overhead lifting
  • Job-specific functional task training
• Ice after exercise prn