General Classification of Rotator Cuff Tear Size:

Small: <1 cm in length **Medium:** 1-3 cm **Large:** 3-5 cm **Massive:** >5 cm

This rehabilitation program is designed to return the individual to their full activities as quickly and safely as possible, following shoulder rotator cuff repair. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based guideline is criterion-based; time frames and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual's goals for activity following this surgery.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

Precautions:

- Immobilizer in place +/- abduction pillow for approximately 4-6 weeks: Remove for showering and exercise only.
- If patient has a concomitant injury/repair treatment will vary- consult with surgeon.

Special Considerations not accounted for in below guideline:

- Subscapular repair
    1. 0-4 weeks: ER to neutral
    2. 4-6 weeks: gentle passive ER from neutral to patient tolerance
    3. Extension limited to neutral for 6 weeks
    4. 6+ weeks: gentle stretching into ER
- Biceps Tenodesis
    1. No active elbow flexion for 6 weeks

Prior to surgery:

1. Improve ROM and strength to maximize functional return
2. Educate patient on appropriate expectation framework for post-op rehab
3. Educate patient on appropriate post-op HEP and techniques to complete independent ADLs after surgery

Phase	Suggested Interventions	Goals/Milestones for Progression
Phase I Weeks 0-4 **AVOID**: 1. Forward head, rounded shoulder posture 2. Extension 3. Lifting/pulling/pushing 4. AROM 5. Aggressive/painful PROM or stretching **PROM progression:** 1. Flexion to at least 90 ° 2. External rotation in scapular plane to 30° 3. IR in scapular plane to 30 °	Specific Instructions: • Use immobilizer all the times except for performing exercises and showering. Sleep in sling. • PT ordered per physician discretion, typically at **week 2** Suggested Exercises: • Shoulder o Codman's Pendulum – flexion/circles 4-8x daily o PROM Flexion in Scapular Plane to tolerance, ER and IR with shoulder abducted 45°, PNF ▪ Under therapist supervision, within pain limits o AAROM – Supine ER/IR in scapular plane (under therapist supervision) o At 2-3 weeks: forward Bow, table slides in scapular plane, AAROM flexion to tolerance with therapist supporting arm • Elbow/Wrist/Hand o AROM o Stress ball/Theraputty • Cervical spine stretching o Upper Trapezius, Levator Scapulae, Scalenes • Scapula (with immobilizer in place) o Elevation/depression, retraction/protraction • Posture training • Maintain cardiovascular health with walking, bike Modalities: • Control of pain and inflammation (Ice/IFC PRN) Mobilizations: • Grade I-II joint mobilizations • Thoracic and costovertebral joint mobilizations PRN • Scapular glides	Goals of Phase: 1. Protect Repair 2. Initiate PROM 3. Pain and edema control 4. Prevent contractures above/below joint Criteria to Advance to Next Phase: 1. Controlled post-operative pain 2. Flexion PROM: 90° 3. ER in Scapular plane: 30°

Phase II
Weeks 4-6

AVOID:
1. Forward head, rounded shoulder posture
2. Extension
3. Horizontal Adduction

PROM Progression:
1. Flexion: 90-120 °
2. Abduction: 90 °
3. External rotation: 45 °
4. Internal rotation: 45 °

Specific Instructions:
- Continue previous exercises
- Continue immobilizer use unless resting at home
- Continue precautions from last phase

Suggested Exercises:
- Shoulder
  - PROM
    - PROM position progression: supine→45° semi-reclined→sitting/standing→ pulleys (AAROM)
    - Flexion: 90-120°
    - Abduction: 90°
    - ER: 0-45° at modified neutral→progress to abducted position per tolerance at 4 weeks.
    - IR: Be VERY cautious to avoid tension if infraspinatus repaired. Gentle, passive pain free supine IR in the plane of the scapula to 30 degrees
  - AAROM
    - Shoulder Pulleys (Normal Scapulohumeral Rhythm must exist to decrease Impingement)
    - Dowel exercises
- Elbow/hand:
  - Sub-max isometrics elbow flex/ext in neutral shoulder position
- Scapulo-thoracic:
  - Extension AROM
  - Continue scapular AROM exercises
- Maintain cardiovascular health with walking, bike
- LE and trunk exercises initiated (no bouncing)

Modalities:
- Control of pain and inflammation (Ice/IFC PRN)

Mobilizations:
- Grade I and II joint mobs used for pain relief/relaxation
  - GH, AC, ST, SC
- Scapular mobilization
- Thoracic PA mobs PRN: seated/supine per tolerance

Goals of Phase:
1. Protect repair
2. Pain and edema control
3. Gradual improvement in PROM/AAROM

Criteria to Advance to Next Phase:
1. Appropriate healing of repair with adherence to precautions, immobilization and exercise protocol
2. ER PROM: 45°
3. Flexion PROM: 120°

<table>
<tr>
<td>Phase III
Weeks 6-12

AVOID:
1. Activities over shoulder height
2. Sudden/ballistic movements
3. Lifting/pushing/pulling
4. Horizontal Adduction

ROM progression:
1. PROM within 10° of contralateral side
2. AROM
• Flexion to 120-180 degrees
• Abduction to 150-180°
• Ext. Rot. To 70-90°
• Int. Rot. 45-60 °
• Extension to 30°</td>
<td>Specific Instructions:
• No aggressive strengthening
• Wean from brace according to physician guidelines
Suggested Exercises:
• Continue previous AAROM exercises for mobility
• Low load, long duration passive stretching
• Non-resisted UBE for warm-up, minimal reach
• PNF patterns, un-resisted
• Rhythmic Stabilization:
o 6-8 weeks
▪ Supine ER/IR in neutral position
o 8-10 weeks
▪ Supine flexion/extension 90°
▪ Ball on table 8-10 weeks
o 10 weeks
▪ Supine flexion/extension at 120°
▪ Ball on wall near 90° in comfortable ROM
• Shoulder
o ER stretching from 30-90° abduction
o Shoulder extension to tolerance
o Progress to side-lying ER
o Wall slides as tolerated in the scapular plane
o Initiate (pain-free) Submax isometrics: start with IR, ER, ext, then abduction & flexion.
o @ 8 weeks:
▪ Progress to AROM as quality of movement improves
▪ Gentle IR stretching behind the back to belt line
▪ Initiate isotonics when 80% AROM achieved
• Scapulo-thoracic:
o Closed chain stability and proprioception at ranges below 60° elevation: large theraball on floor: circles clockwise/counterclockwise +/- pushing into ball
o AROM scapular shrugs, scapular retraction, scapular depression, prone rowing without resistance
o Supine→standing stabilization exercises
• Elbow/hand:
o Supported sub-maximal Isometric elbow flex/ext in neutral shoulder position progress to gentle Isotonics:
o @ 8 weeks: unsupported 2-5 lb. bicep curls and Theraband tricep pull-downs
• Maintain cardiovascular health with walking, bike
Mobilizations:
• Grade II - IV joint mobs for pain/mobility as necessary
• Scar mobilization when completely healed</td>
<td>Goals of Phase:
1. Preserve the integrity of the surgical repair
2. Restore muscular strength and balance
3. Restore functional PROM in all planes with normal movement patterns
4. Able to tolerate initiation of submaximal, pain-free muscle activation exercise

Criteria to Advance to Next Phase:
1. PROM arc within 10° of contralateral side
2. ROM: no substitution patterns
• Flexion: 120-180° (or equal to contralateral side)
• Abduction: 150 – 180° w/deviation toward scapular plane
• ER: 70 – 90°; IR: 40 – 60°
• Ext: 30° without stretching
3. Minimal/no pain in available ROM</td>
</tr>
</table>

Phase IV Weeks 12-24 **AVOID**: 1. PAIN WITH ACTIVITY/EXERCISE 2. Sudden lifting, jerking, pushing or pulling movements 3. Heavy lifting above shoulder height 4. Full and empty can exercises ➢ Long lever places too much stress on rotator cuff	Specific Instructions: • No uncontrolled movements • Weight lifted must not cause pain or compensatory hiking • Endurance then strength: Increase number of repetitions before adding resistance Suggested Exercises: • Strengthening with Theraband/progressive weights: initially only to 90° o Scapulo-thoracic o Glenohumeral o Rotator Cuff o Biceps/Triceps • Closed chain stability exercises (wall push-up) o Advance over time from partial to full weight-bearing • Serratus punch, dynamic hug • Progress to light resistances of PNF patterned strengthening • Prone exercises: o 'Y','T', 'I''s o Rows o External rotation • Continue ROM/stretching as needed • Continue proprioception and kinesthetic awareness→standing o Ball on wall, rhythmic stabilization, body blade **@ 16 weeks** • Plyometric exercise (if needed): o 2 handed tosses: waist/chest level→overhead→diagonal (PNF patterns) o 1 handed tosses: begin with shoulder flexion/elbow extension→progress to increased shoulder ABD and ER. o Start with towel, beach ball, tennis ball→progress to lightly weighted ball • Gym exercises: chest press, military press, fly/reverse fly, lap pull downs • Initiate sport specific training/job related tasks • Swimming/tennis/lifting/carrying Modalities: • Control of pain and inflammation • Heat before therapy, ice after (as needed) Mobilizations: • Grade II-IV joint mobilizations for mobility as needed	Goals of Phase: 1. No pain or tenderness 2. Independent HEP 3. Normal motor control Criteria to Advance to Next Phase: 1. Full ROM in all planes with normal movement mechanics 2. Muscular strength 75-90% of contralateral side 3. Quick DASH <10% Disability

Phase V 6-9 months	Specific Instructions: • Interval throwing program, interval pitching program • Advance strengthening program+/- plyometric training if required • Sport-specific training: heavy labor or overhead sports Special considerations for overhead athletes: - Successful progression of interval throwing program to 180 feet with no pain - Consider throwing mechanics assessment - ER/IR Ratio >80% - UE Return to Sports Testing	Suggested Criteria for Discharge: 1. Therapist/Physician Clearance 2. No pain at rest or with activity 3. Sufficient ROM to meet task demands 4. Good/full strength and endurance of muscles to complete desired activities 5. Pass UE return to sports testing