



## ROTATOR CUFF REPAIR [SMALL TO MEDIUM & LARGE > 5CM] REHABILITATION GUIDE

PHASE	SUGGESTED INTERVENTIONS	TO ADVANCE TO NEXT PHASE
<b>PHASE I</b> <b>EDUCATIONAL</b> <b>PHASE</b>	<p><b>Goal:</b> -Discuss details encompassing anatomy, existing pathology, post-operative rehabilitation schedules, bracing protocols, and anticipated progressions in the aftermath of a surgical procedure constitutes a comprehensive and vital aspect of the overall healthcare process. Discuss the use of braces during the recovery period, detailing types, duration, and any adjustments based on the surgical procedure.</p> <p><b>ROM:</b> <b>ACTIVE ASSISTED RANGE OF MOTION (AROM)</b> -May participate in active range of motion with elbow, wrist and hand with no weight.</p> <p><b>Immediate Post-Op:</b> -Commence pendulum hang position and initiate pendulum motion in the forward/back and side-to-side directions with an arc of less than 7 inches after 2 weeks.</p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"><li>1. Enhance range of motion (ROM) and strength up to the individual's tolerance before undergoing surgery.</li><li>2. Establish an appropriate framework for postoperative rehabilitation expectations.</li></ol>
<b>PHASE II</b> <b>PEAK</b> <b>PROTECTION</b> <b>PHASE</b> 0-4 WEEKS  2-4 EXPECTED VISITS	<p><b>Goal:</b> -Restrict movements to neutral extension, avoiding any actions beyond this range. Refrain from reaching behind the back, as well as lifting, pulling, or pushing, even during transfers. Additionally, avoid any active range of motion (AROM) exercises for the involved shoulder. Steer clear of aggressive or painful passive range of motion (PROM) and stretching activities to ensure a cautious approach to rehabilitation.</p> <p><b>ROM:</b> <b>ACTIVE ASSISTED RANGE OF MOTION (AROM)</b> -Focus on the rehabilitation of the neck, elbow, wrist, and hand by incorporating specific movements. Emphasize scapular retraction and depression, ensuring that the elbow remains positioned without going behind the back.</p> <p><b>PASSIVE RANGE OF MOTION (PROM)</b> -Include passive pendulum exercises involving forward/back and side-to-side motions with an arc of less than 7 inches. Begin passive external rotation (ER) exercises using a stick, initiating them at 2 weeks and focusing on a pain-free range of motion.</p> <p><b>Activities:</b> -Perform thoracic posterior-anterior (PA) mobilizations while seated during the initial 1-2 weeks. If well-tolerated, transition to prone positions for these mobilizations from weeks 2-4.</p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"><li>1. Safeguard the surgical repair.</li><li>2. Avert contractures both above and below the shoulder joint.</li><li>3. Effectively address inflammation and pain.</li><li>4. Implement gradual enhancements in passive range of motion according to established guidelines.</li></ol>
<b>PHASE III</b> <b>RECOVERY</b> <b>PHASE</b> 4-6 WEEKS 5-6 EXPECTED VISITS	<p><b>Goal:</b> -Maintain the continuity of the established exercise program. Utilize the sling consistently, except during periods of rest at home. Adhere to the precautionary measures outlined in the preceding phase. Emphasize avoiding a forward head and rounded shoulder posture, actively promoting and maintaining thoracic extension throughout the rehabilitation process.</p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"><li>1. Tolerate initiation and progression of active shoulder flexion and scaption without compensatory hiking.</li><li>2. Restore functional passive range of motion (PROM) in all planes with normal movement patterns.</li></ol>

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<p><b>PHASE III</b> <b>RECOVERY</b> <b>PHASE</b> 4-6 WEEKS</p> <p>5-6 EXPECTED VISITS</p>	<p><b>ROM:</b> <b>AROM [SMALL TO MEDIUM]</b> -Conduct an active warm-up before physical therapy using an upper body ergometer (UBE) and/or active external/internal rotation (ER/IR) within the scapular plane with minimized gravitational resistance. Begin the process by introducing upright active assisted range of motion (AAROM) exercises for flexion and scaption, utilizing pulleys or self-assisted methods. Progressively advance external rotation (ER) AROM exercises from an upright position to side-lying, adapting the intensity according to individual tolerance levels.</p> <p><b>AROM [LARGE &gt; 5CM]</b> -Incorporate scapular retraction and depression within the active range of motion (AROM) exercises. Include AROM exercises for the elbow, wrist, and hand. Integrate thoracic extension AROM into the routine. Additionally, engage in submaximal, pain-free isometric exercises for elbow flexion and extension, ensuring that the arm is positioned against the body to avoid resistance against shoulder elevation.</p> <p><b>PROM [SMALL TO MEDIUM]</b> -Sustain external rotation (ER) stretching within the range of 30-90 degrees abduction and flexion, incorporating passive range of motion (PROM) and stretching. Commence shoulder extension exercises within a comfortable range. Upon reaching the 8-week mark, gradually introduce gentle internal rotation (IR) stretching, including movements behind the back. (large &gt;5cm) Commence self-assisted passive external rotation (ER) exercises using a stick in an upright or supine position. When in a supine position, restrict extension by placing a towel roll behind the elbow on the table. Introduce therapist-assisted flexion passive range of motion (PROM) exercises while in a supine position. Advance supine passive ER exercises with a stick, gradually increasing from 30 to 60 degrees abduction based on individual tolerance. Incorporate gentle, passive, and pain-free supine internal rotation (IR) exercises within the scapular plane, limiting to 30 degrees.</p> <p><i>*Ask a healthcare provider for recommended exercises during this phase</i></p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"> <li>3. Decrease pain and inflammation.</li> <li>4. Tolerate initiation of submaximal, pain-free muscle activation exercises.</li> </ol>
<p><b>PHASE IV</b> <b>MANAGED</b> <b>MOBILITY</b> <b>PHASE</b> 7-11 WEEKS</p> <p>7-10 EXPECTED VISITS</p>	<p><b>Goal:</b> -Refrain from engaging in activities that require reaching or extending the arms above shoulder height. Steer clear of sudden or ballistic movements and avoid aggressive strengthening exercises. Refrain from lifting, pulling, or pushing heavy objects. Gradually reduce reliance on the brace in accordance with the guidelines provided by the physician.</p> <p><b>ROM:</b> <b>AAROM &amp; AROM</b> -Before engaging in physical therapy, conduct an active warm-up utilizing the upper body ergometer (UBE) and/or active external/internal rotation (ER/IR) within the scapular plane with minimized gravitational resistance. Initiate upright active assisted range of motion (AAROM) exercises, focusing on flexion and scaption using either pulleys or self-assisted techniques. As the quality of movement improves, advance from AAROM to active range of motion (AROM) for flexion and scaption. Gradually progress external rotation (ER) AROM exercises from an upright position to side-lying, adjusting the intensity based on individual tolerance levels.</p> <p><b>PROM</b> -Begin by self-assisted passive supine flexion exercises, gradually progressing within the comfort limits over the course of 6 weeks. During this period, maintain external rotation (ER) stretching within the range of 30-90 degrees abduction. Following the initial phase, introduce shoulder extension exercises, carefully adjusting to individual tolerance levels over the next week (7 weeks). Finally, at the 10-week mark, initiate gentle internal rotation (IR) stretching, incorporating movements behind the back.</p> <p><i>*Ask a healthcare provider for recommended exercises during this phase</i></p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"> <li>1. Tolerate the initiation and progression of active shoulder flexion and scaption without compensatory hiking.</li> <li>2. Restore functional passive range of motion (PROM) in all planes with normal movement patterns.</li> <li>3. Decrease pain and inflammation.</li> <li>4. Tolerate the initiation of submaximal, pain-free muscle activation exercises.</li> </ol>



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<p><b>PHASE V</b> STRENGTHENING PHASE 12-24 WEEKS</p> <p>11-13 EXPECTED VISITS</p>	<p><b>Goal:</b> -Exercise caution to prevent sudden lifting, jerking, pushing, or pulling movements. Steer clear of uncontrolled motions, emphasizing the importance of maintaining deliberate and controlled actions. Specifically, avoid heavy lifting, especially above shoulder height, ensuring that any weight lifted does not induce pain or lead to compensatory hiking.</p> <p><b>ROM:</b> -Continue ROM and stretching efforts to maintain the best recovery process.</p> <p><b>Strengthening Process:</b> -Incorporate a variety of exercises into the routine to target different muscle groups and enhance shoulder mobility - Include biceps curls and triceps press-downs to engage the arm muscles. Perform 30-30 external rotation (ER) and internal rotation (IR) exercises to promote rotator cuff strength. Integrate rowing movements to enhance the back muscles. Execute supine serratus punches or dynamic hugs for scapular stability. Gradually introduce shoulder flexion, starting with a range limited to 90 degrees. Explore prone or bent-over horizontal abduction in external rotation for a comprehensive workout. Begin scaption exercises, initially limiting the range to 90 degrees. Conclude with straight arm rows to further enhance shoulder strength and stability.</p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"> <li>1. Promote and sustain functional range of motion (ROM) and movement quality.</li> <li>2. Endure and adapt to the progressive program for muscular strength, power, and endurance.</li> </ol>
<p><b>PHASE VI</b> ADVANCED STRENGTHENING &amp; MOBILITY PHASE 6-9 MONTHS</p>	<p><b>Goal:</b> -Achieve a strength rating of 5/5 or reach 85%-90% of the strength observed in the contralateral side, as determined by a hand-held dynamometer test at 22-24 weeks. Attain full range of motion (ROM) in all planes, maintaining normal movement mechanics. Ensure freedom from pain during basic activities of daily living (ADLs) and phase V strengthening exercises. Strive for a Quick Disabilities of the Arm, Shoulder, and Hand (Quick DASH) score of less than 10%, indicating minimal disability.</p> <p>-Patient will return to sport/regular activities once passing certain criteria observed and conducted by physician.</p>	<p><b>Criteria:</b></p> <ol style="list-style-type: none"> <li>1. Achieve complete and pain-free range of motion without resorting to compensatory mechanisms.</li> <li>2. Attain a strength rating of 5/5 or reach 90% of the strength observed in the contralateral side, as assessed by a hand-held dynamometer or isokinetic machine.</li> </ol>

