



Rotator Cuff Repair (Open and Arthroscopic) Standard Post-Operative Care

(Dr. Bieber's Patients)

This protocol was developed to provide the physical therapist with guidelines for treatment of a patient who has undergone surgical repair of the rotator cuff. These guidelines are not a substitute for appropriate clinical decision making. It is essential that the therapist takes into consideration the size of the tear, tissue quality and individual function in order to obtain optimal outcomes. The protocol is divided into 5 phases. Patients will typically continue with formal physical therapy in some capacity until they are independent with Phase III home exercises (14 to 16 weeks post-op). Anticipated number of visits range from 18 to 27 formal PT sessions. Progression from phases should not occur prior to the appropriate post-op time frames; however, phase progression should be delayed if the patient does not meet the progression criteria. Tolerance to exercise should be closely monitored. Patients should not have a significant increase in pain after treatment or exercise. If this occurs, treatment is too vigorous and should be modified accordingly. UBE's should not be used during the rehab process due to high injury rates. Heat can be used pretreatment as needed, but no sooner than 2 weeks post-op.

Phase I: Protection Phase

Weeks 0 to 6

Immobilization:

- Padded sling with abductor wedge worn post-operatively
- Sling worn at all times for 6 weeks post-op, removing only for exercises and showering
 - Weeks 0-3: Sling with abductor wedge worn at all times
 - Weeks 3-6: Abductor wedge removed during daytime (worn for sleeping)

Formal Physical Therapy:

- Patients will be scheduled for 1st PT visit on POD 3-5
- Most patients will be seen 1-2 times per week during Phase I
- If a patient is developing post-op stiffness and cannot safely or properly perform their home ROM program, then they can be seen 3 times per week as needed until motion is on schedule

Goals:

- Maintain the integrity of the repair
- Diminish pain and inflammation
- Gradually restore functional PROM
- Modified independent with ADL's, while maintaining the integrity of the repair

Precautions:

- No shoulder AROM
- Remove sling only for exercises and showering
- No isometrics of GH musculature
- No shoulder extension beyond neutral until after week 6
 - Place towel under distal humerus when supine
 - Advise patient to always be able to visualize their elbow
- No excessive stretching or sudden motion
- No supporting of bodyweight with involved extremity
- Keep incisions dry and clean
- No driving until out of sling, unless cleared by the surgeon

Physical Therapy Treatment:

- PROM as tolerated (pain free)
 - Forward elevation:
 - Goal: 90° by end of week 2
 - By week 6: progress to 120 degrees ROM as tolerated
 - Internal/external rotation in the scapular plane:
 - Elbow supported to avoid shoulder extension
 - Begin at 30° abduction and progress as tolerated
 - At week 4, progress:
 - ER at 60° of abduction: $\geq 20^\circ$
 - IR at 60° of abduction: as tolerated (pain free)
- Monitor cervical ROM
- Pendulums
 - If painful, perform pendulum hangs without motion
- Elbow and wrist AROM
- Grip strengthening
- Address postural issues (cervical/scapular)
- Scapular retraction/depression
- Scapular stabilization exercises (manual)
- GH/ST joint mobilizations as tolerated. Avoid inferior glides until 6 weeks from surgical date.
 - Self-PROM: Only performed if patient demonstrates good form after 2 weeks from surgical date.
 - Supine forward elevation: Use uninvolved extremity to lift involved extremity within motion precautions.
 - Supine external rotation: Cane-assisted within motion precautions.

Recommended HEP:

- *If the patient cannot demonstrate correct performance of these exercises in the clinic, they should not be performed at home*
- Perform 3 times daily
 - Pendulums
 - Self-PROM forward elevation after 2 weeks from surgical date: 10 second holds x 5 reps
 - Self-PROM external rotation after 2 weeks from surgical date: 10 second holds x 5 reps
 - Scapular retraction/depression
 - Cervical ROM as needed
 - Elbow and wrist AROM

Criteria for Progression to Phase II:

- Forward elevation PROM: 120°
- External rotation PROM: 20° in 60 degrees of abduction.
- Full elbow/wrist AROM

Phase II: AROM Phase
Weeks 6 to 12

Formal Physical Therapy:

- The patient's sling will be removed at their post-op visit with the physician
- Most patients will schedule 2 times per week until functional AROM is achieved without scapular compensation
- Progression into Phase II activities is delayed if the patient is stiff (defined as not meeting Phase II progression criteria)
- If the patient regains full, pain-free AROM, treatment can be decreased to 1 time per week for the remainder of Phase II

Goals:

- Maintain functional PROM
- Progress towards functional AROM
- Promote soft tissue healing/do not overstress healing tissue
- Slow return to light active use without resistance
- Progress scapular stabilization program within precautions.

Precautions:

- No lifting with involved extremity
- No supporting of bodyweight with involved extremity
- No excessive behind the back motions
 - Combined shoulder adduction, internal rotation and extension
- No sudden jerky motion
- Avoid frontal plane abduction
 - Perform elevation in the scapular plane

Physical Therapy Treatment:

- Pulleys
- Continued PROM as needed. The following may be added:
Horizontal adduction.
Internal rotation: Hand to back (gentle). Goal of reaching to glute.
- AAROM to AROM progression
 - Begin AROM supine/prone. Progress to standing as tolerated
- Light, resisted elbow flexion/extension
- Deltoid isometrics (week 10)
- ER/IR isometrics (week 10)
- GH/ST joint mobilizations as tolerated.
- Scapular setting program. Begin in standing (many patients will already have initiated this during phase one). Progress to side lying position. Some patients may be able to progress to completion of these in prone position. However, if patient cannot demonstrate ability to assume this position without placing body weight through operated arm, it should not be performed.

Recommended HEP:

- Continue PROM/AAROM as needed
- Add AROM exercises 2-3 times daily

- Begin sub-max isometrics 1 time daily (week 10)
- Address scapular position and alignment as needed

Criteria for Progression to Phase III:

- Functional, pain-free AROM without scapular compensation

Phase III: Early Strengthening Phase
Weeks 12 to 18

It is important to note that the tendon is not fully reattached to the bone tissue until 5 months after surgery. While strengthening may begin at this phase, all exercises must be introduced on a gradual basis with this ongoing healing taken into consideration.

Formal Physical Therapy:

- The patient will be seen 1 time per week in Phase III for 2 to 4 visits to assure independence with a long-term strengthening program
- Discharge to HEP once patient demonstrates good form with functional strength

Goals:

- Gradual restoration of shoulder and scapular strength
- Maintenance of full ROM
- Gradual return to functional activities

Precautions:

- No heavy lifting (3 pound max)
- No sudden lifting or pushing activities

Physical Therapy Treatment:

- Continue and progress with appropriate Phase I and II exercises as needed
- Theraband strengthening program
 - Internal/external rotation
 - Deltoid press to 90° forward elevation
 - Scapular program
- Supine deltoid strengthening
- Prone scapular program with light resistance

Recommended HEP:

- Continue Phase I and II exercises as needed
- Begin home strengthening Theraband program 1 time daily

Criteria for Progression to Phase IV:

- Restoration of dynamic shoulder stability
- Demonstrates good form and progress with Phase III strengthening exercises

Phase IV: Advanced Strengthening Phase
Weeks 18 to 26

Formal physical therapy has been completed. The patient will be instructed on which exercises need to be continued and how to progress with resistance and weights.

Phase V: Return to Function Phase
Weeks 26 onward

Determined by surgeon based on patient's presentation

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