



Luis E. Bolano MD
Hand and Upper Extremity Reconstruction

Arthroscopic Rotator Cuff Repair Protocol:

The intent of this protocol is to provide the clinician with a guideline of the post-operative rehabilitation course of a patient that has undergone an arthroscopic assisted/mini-open rotator cuff repair. It is no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of post-operative complications. If a clinician requires assistance in the progression of a post-operative patient they should consult with the referring Surgeon.

Progression to the next phase based on Clinical Criteria and/or Time Frames as Appropriate.

Phase I – Immediate Post Surgical Phase (Weeks 1-4):

Goals:

- Maintain integrity of repair
- Diminish pain and inflammation
- Prevent muscular inhibition
- Independent with ADL's with modifications while maintaining the integrity of the repair.

Precautions:

- No active range of motion (AROM) of Shoulder
- Maintain arm in sling, remove only for exercise
- No lifting of objects
- No shoulder motion behind back
- No excessive stretching or sudden movements
- No supporting of body weight by hands
- Keep incision clean and dry

Criteria for progression to the next phase (II):

- Passive range of motion (PROM) Flexion to at least 100 degrees
- PROM ER in scapular plane to at least 45 degrees
- PROM IR in scapular plane to at least 45 degrees
- PROM Abduction to at least 90 degrees in the scapular plane

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DAY 1 TO 6:

- Abduction brace / sling
- Sleep in brace / sling
- Begin scapula musculature isometrics / sets; cervical ROM
- Patient education: posture, joint protection, positioning, hygiene, etc.
- Cryotherapy for pain and inflammation
 - Day 1-2: as much as possible
 - Day 3-6: post activity, or for pain

DAY 7 TO 28:

- Continue use of brace / sling
- Pendulum Exercises (to begin 21 days after surgery, no pendulums before this time)
- Start passive ROM to tolerance (at 21 days)
 - Flexion
 - Abduction in the scapular plane
 - ER in scapular plane
 - IR in scapular plane
- Continue Elbow, wrist, and finger AROM / resisted
- Cryotherapy as needed for pain control and inflammation

Phase II – Protection Phase (Week 4-10):

Goals:

- Allow healing of soft tissue
- Do not overstress healing tissue
- Gradually restore full passive ROM (week 4-5)
- Decrease pain and inflammation

Precautions:

- No lifting
- No supporting of body weight by hands and arms
- No excessive behind the back movements
- No sudden jerking motions

Criteria for progression to the next phase (III):

- Full AROM

WEEK 5-6:

- Continue use of brace / sling full time until end of week 5
- Between weeks 5 and 6 may use brace / sling for comfort only
- Discontinue brace / sling at end of week 6

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- Initiate active assisted range of motion (AAROM) flexion in supine position
- Progressive passive ROM until approximately Full ROM at Week 4-5.
 - This ROM should be PAIN FREE
- Gentle Scapular/glenohumeral joint mobilization as indicated to regain full passive ROM
- Continue previous exercises in Phase I as needed
- Continue all precautions
- Initiate prone rowing to neutral arm position
- Continue cryotherapy as needed
- May use heat prior to ROM exercises
- May use pool (aquatherapy) for light ROM exercises
- Ice after exercise

WEEK 6-8:

- Continue AAROM and stretching exercises
- Begin rotator cuff isometrics
- Initiate active ROM exercises
 - Shoulder flexion scapular plane
 - Shoulder abduction

Phase III – Intermediate phase (week 10-14):

Goals:

- Full AROM (week 10-12)
- Maintain Full PROM
- Dynamic Shoulder Stability
- Gradual restoration of shoulder strength, power, and endurance
- Optimize neuromuscular control
- Gradual return to functional activities

Precautions:

- No heavy lifting of objects (no heavier than 5 lbs.)
- No sudden lifting or pushing activities
- No sudden jerking motions

Criteria for progression to the next phase (IV):

- Able to tolerate the progression to low-level functional activities
- Demonstrates return of strength / dynamic shoulder stability
- Re-establish dynamic shoulder stability
- Demonstrates adequate strength and dynamic stability for progression to higher demanding work/sport specific activities.

WEEK 10:

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- Continue stretching and passive ROM (as needed)
- Dynamic stabilization exercises
- Initiate strengthening program
 - External rotation (ER)/Internal rotation (IR) with therabands/sport cord/tubing
 - ER Sidelying
 - Lateral Raises*
 - Full Can in Scapular Plane* (avoid empty can abduction exercises at all times)
 - Prone Rowing
 - Prone Horizontal Abduction
 - Prone Extension
 - Elbow Flexion
 - Elbow Extension

*Patient must be able to elevate arm without shoulder or scapular hiking before initiating isotonic; if unable, continue glenohumeral joint exercises

WEEK 12:

- Continue all exercise listed above
- Initiate light functional activities

WEEK 14:

- Continue all exercise listed above
- Progress to fundamental shoulder exercises

Phase IV – Advanced strengthening phase (week 16-22):

Goals:

- Maintain full non-painful active ROM
- Advance conditioning exercises for Enhanced functional use of UE
- Improve muscular strength, power, and endurance
- Gradual return to full functional activities

WEEK 16:

- Continue ROM and self-capsular stretching for ROM maintenance
- Continue progression of strengthening
- Advance proprioceptive, neuromuscular activities

WEEK 20:

- Continue all exercises listed above
- Continue to perform ROM stretching, if motion is not complete

Phase V – Return to activity phase (week 20-26):

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Goals:

- Gradual return to strenuous work activities
- Gradual return to recreational activities
- Gradual return to sport activities

WEEK 23:

- Continue strengthening and stretching
- Continue stretching, if motion is tight

WEEK 26:

- May initiate interval sport program (i.e. golf, etc.), if appropriate

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Reviewd/Updated 11/06, 12/07

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