



ARC

ARTHROSCOPIC ROTATOR CUFF TRIAL

POSTOPERATIVE REHABILITATION PROTOCOL

ShoulderStudy.com

Arthroscopic Rotator Cuff (ARC) Clinical Trial

POSTOPERATIVE REHABILITATION PROTOCOL

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POSTOPERATIVE REHABILITATION PROTOCOL

POSTOPERATIVE GUIDELINES

*Do not add or skip any part of this program.
If you have questions or concerns, please contact
the Lead Physical Therapist for your site below.*



You may also contact the trial's Lead Physical Therapists at Vanderbilt:

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GENERAL INSTRUCTIONS:

- The patient should work with the physical therapist approximately 1-2x/week for 16 weeks. There is no required minimum number of visits per week.
- The patient should perform a home exercise program (HEP) as prescribed by the physical therapist approximately 30 minutes/day, 2-4x/week.
- The combined total of physical therapy visits & HEP (in any combination) should equal 4+x/week.

Timeline

The patient is to begin physical therapy in the first week after surgery.

Modalities

Patients are encouraged to use cryotherapy after surgery and exercise.

Sling Use

A sling with a small pillow may be worn for 6 weeks after surgery. The sling may be removed for showering and activities as directed. The sling should be worn when the patient is in an uncontrolled environment: sleeping, around children, pets, and crowds during these six weeks.

Activity Restrictions

- Showering: As directed by physician
- Deskwork: When comfortable with sling
- Driving: As directed by physician
- Lifting restrictions:
 - After 9 weeks: Up to 1-2 pounds below shoulder level
 - After 12 weeks: Up to 5 pounds keeping weight close to body
- Reaching behind back: 9 weeks
- Pushing/Pulling: 12 weeks
- Reaching overhead: 12 weeks
- Return to Sport/Heavy Activity: Upon the completion of the therapy program as advised by the physician and physical therapist

Each phase should include:

- Physical therapy (PT) intervention as indicated by treating physical therapist’s plan of care within guidelines of this study protocol
- Perform Home Exercise Program (HEP)

Progression

- For each exercise, begin with 1 set (up to 10 repetitions per set) and progress to 3 sets (up to 10 repetitions per set). The number of sets/reps given should be based on good quality movement.
- The post-operative guidelines should be advanced per the time period indicated for each phase.
- The patient should not be advanced to the next phase sooner than specified.

STAGED ROM GOALS AND APPROXIMATE TARGETS

	Passive Forward Flexion	Passive External Rotation at 20° Abduction	Passive External Rotation at 90° Abduction	Active Forward Flexion
Week 2	60°-90°	0°-20°	NA	NA
Week 6	90°-120°	20°-30°	NA	NA
Week 9	130°-155°	30°-45°	45°-60°	80°-120°
Week 12	140°-WNL	30°-WNL	75°-WNL	120°-WNL

PHASE ONE: Passive Motion & Scapular Exercises (Weeks 0-4)**GOALS OF PHASE ONE:**

- Protect the repair
- Allow for wound healing
- Control pain and inflammation
- Prevent the development of adhesions

Passive range of motion (PROM), pendulum exercises and scapular retraction are started during the first week after surgery. PROM requires the therapist to put the arm through a comfortable range of motion while the patient is supine. Motions include flexion, abduction and external rotation. Hand, wrist, and elbow motion should be done as needed. PROM, pendulum, and scapular retraction should be done at each therapy visit.



PROM: The therapist should move the arm while the patient remains relaxed.

PHASE ONE



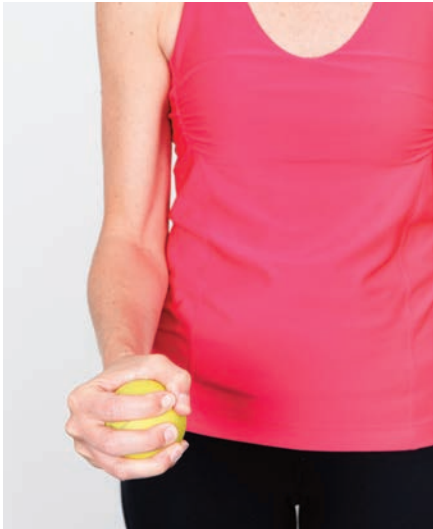
PENDULUM EXERCISES

Clockwise/Counterclockwise, forward back and side/side. Keep the arm relaxed and move at the hips and trunk.



SCAPULAR RETRACTION

Instruct patient to squeeze their shoulder blades together.



GRIPPING

Instruct patient to squeeze a towel or a therapy ball. Hold 5 seconds.



ELBOW FLEXION

Instruct patient to flex and extend the elbow.

PHASE TWO: Supine Active Assisted Motion (Week 4)**GOALS OF PHASE TWO & THREE:**

- Protect the repair
- Control pain and inflammation
- Attain PROM per staged ROM goals

At Week 4, the therapist should introduce active assisted range of motion (AAROM) in the supine position. Motions include flexion, abduction and external rotation. AAROM should be done at each therapy visit.

**FLEXION****ABDUCTION****EXTERNAL ROTATION****INSTRUCTIONS**

The patient should use a cane/stick to elevate or rotate the involved arm. The uninvolved arm should guide the involved arm. The patient should increase the elevation or rotation of the involved arm as tolerated.

PHASE THREE: Active Assisted Motion & Scapula Exercises (Weeks 5-8)

At week 5, the therapist should introduce AAROM with the patient at an incline of 45 degrees. At week 6, the therapist should have the patient perform AAROM in the upright position using a cane/stick and pulleys. Motions include flexion, abduction and external rotation. Scapular retraction exercises should continue during this time period. AAROM and scapular retraction should be done at each therapy visit.



FLEXION



ABDUCTION



EXTERNAL ROTATION

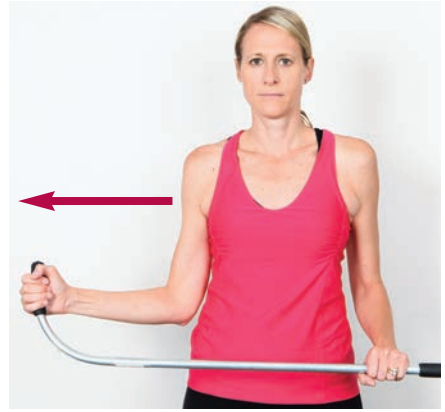


FLEXION

PHASE THREE



ABDUCTION



EXTERNAL ROTATION

INSTRUCTIONS

The patient should use a cane/stick or pulleys to elevate or rotate the involved arm. The uninvolved arm should guide the involved arm. The patient should increase the elevation or rotation of the involved arm as tolerated.



ABDUCTION



FLEXION

PHASE FOUR: Active Motion, Isometrics & Scapula Exercises (Weeks 9-12)**GOALS OF PHASE FOUR:**

- Maintain full PROM
- Attain full, pain-free AROM
- Initiate strengthening program

The patient begins active range of motion (AROM) in flexion, abduction and external rotation. In addition, isometric strengthening exercises begin at this time. The patient should continue with scapular retraction exercises. PROM should continue as needed. AROM, isometrics and scapular exercises should be done at each therapy visit.

**FLEXION****ABDUCTION****SIDELYING EXTERNAL ROTATION****INSTRUCTIONS**

In standing, the patient should move the involved arm forward into elevation and abduction. If needed, the patient may begin these exercises with the elbow bent. It is important to avoid “hiking” of the shoulder. In sidelying, the patient should move the arm into external rotation.

PHASE FOUR



FLEXION



ABDUCTION



EXTERNAL ROTATION

INSTRUCTIONS

In standing with the elbow bent at 90 degrees, the patient should use a towel for sub-maximal isometrics. The patient should push the involved hand out against the wall for external rotation, into the wall for internal rotation, forward for flexion, and the involved elbow back against the wall for extension. Hold for 10 seconds.



INTERNAL ROTATION



FLEXION



EXTENSION

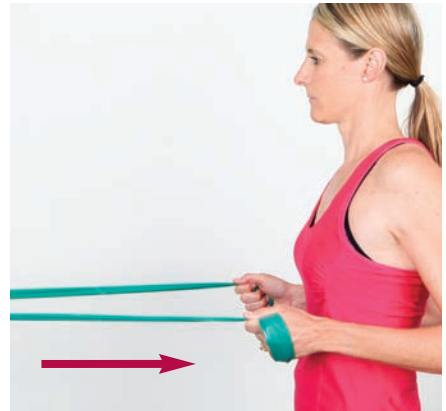
PHASE FIVE: Resisted Exercises & Shoulder Stretches (Weeks 13-16)**GOALS OF PHASE FIVE:**

- Maintain full, pain-free AROM
- Increase functional activities
- Restore strength in involved UE

At week 13, the therapist should introduce resisted scapular stabilization and rotator cuff strengthening. Exercises may start with bands or no weights and progress to hand weights. All exercises should be performed while squeezing the shoulder blades together. These exercises should be performed at least three days per week. The patient should feel muscle fatigue toward the end of the exercise but still be able to perform the exercise with good form and no pain. Patient may advance to perform both overhead and plyometric exercises when appropriate in order to return to work, sport or functional tasks.



**THERABAND SHOULDER
EXTENSION**



THERABAND ROW

PHASE FIVE



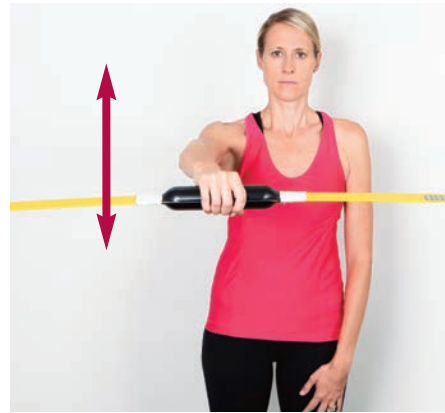
THERABAND EXTERNAL ROTATION



THERABAND INTERNAL ROTATION



BODY BLADE EXTERNAL/INTERNAL ROTATION



BODY BLADE FLEXION



PRONE SHOULDER EXTENSION

PHASE FIVE



PRONE ROW



SERRATUS PUNCH



SIDELYING EXTERNAL ROTATION

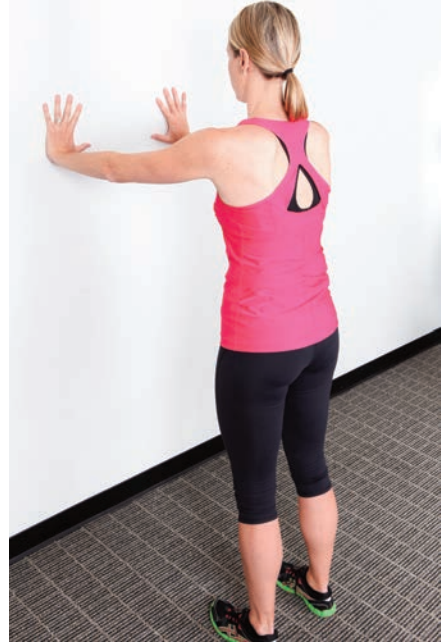


PRONE SCAPTION



PRONE HORIZONTAL ABDUCTION

PHASE FIVE



PUSHUPS WITH A PLUS AGAINST WALL



BALL ON WALL FLEXION



BALL ON WALL ABDUCTION

INSTRUCTIONS: The patient should place a ball against the wall at shoulder height, holding it with the palm of their hand, and perform small circles both clockwise and counterclockwise.

PHASE FIVE



CORNER STRETCH



TOWEL STRETCH

INSTRUCTIONS

The patient may begin with gentle stretching and progress as tolerated. Stretching should be done at each therapy visit. Perform 5 repetitions and hold each stretch for 20 seconds.



CROSS BODY STRETCH



SLEEPER STRETCH

CRITERIA FOR DISCHARGE

Patient must meet 4 of the 5 criteria.

1. Full AROM of the involved shoulder
2. Patient exhibits a minimum of 4+/5 strength in the following muscle groups:
 - Internal rotators
 - Middle trapezius
 - External rotators
 - Lower trapezius
 - Serratus anterior
3. Normalize scapulohumeral movement with no substitution patterns
4. No shoulder pain at rest or with ADLs
5. Return to prior level of ADLs and/or sport

PRIMARY STUDY INVESTIGATORS

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ARC Clinical Trial is led by:

Vanderbilt Physical Medicine & Rehabilitation

Vanderbilt Sports Medicine

Vanderbilt Orthopaedic Institute

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