

MOON SHOULDER GROUP

For information regarding the MOON Shoulder Group,
speak to surgeon or contact:

Rosemary Sanders
4200 Medical Center East
1215 21st Avenue South
Vanderbilt University Medical Center
Nashville TN 37232-8300
Rosemary.A.Sanders@Vanderbilt.Edu
www.MOONShoulder.com



Version 1.0 All Illustrations by Jasper Richardson.

POST-OPERATIVE ROTATOR CUFF REPAIR PROTOCOL

Therapist Instructions



BLUE PROTOCOL

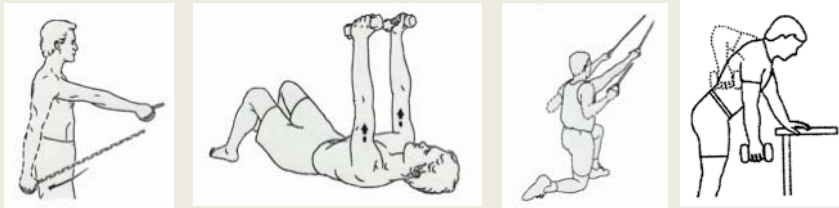
Delayed Therapy

MOON SHOULDER GROUP

Phase 4: Resisted Exercises (18-22) Weeks after Surgery)

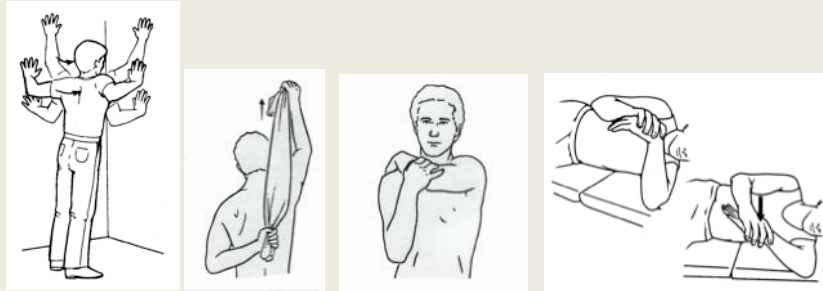
Phase 4: Resisted Exercises 18-22 Weeks.

These exercises include scapula strengthening and light stretching.



RESISTED SCAPULA STRENGTHENING

Scapula strengthening exercises include locked elbow extension to work the trapezius, press-up plus-reaching toward the ceiling to work the serratus. Rows may be done kneeling with elastic bands, and upright with a hand weight. Like other strengthening exercises, each exercise should be performed as 10-15 repetitions, followed by 2 minutes of rest, and repeated as 3-4 sets. Strengthening exercises should be done 3 days each week.



SHOULDER STRETCHING

Stretching should be done daily. Hold each stretch for 15 seconds, rest for 15 seconds, and repeat 5 times. The corner stretch will stretch the anterior shoulder. The towel stretch, cross-body stretch, and the sleeper stretch will stretch the posterior shoulder. Begin with gentle stretching. After 22 weeks, aggressive stretching may be used if needed.

Introductions for the Therapist

The MOON Shoulder Group is a collection of shoulder experts who study the best methods to treat patients with rotator cuff tears. Your Patient is part of a study evaluating the effect of timing of post-operative therapy after rotator cuff repair.

-This patient is to begin therapy 6 weeks after surgery.

-The patient should work with the therapist 1-3x/week until released by the surgeon.

-Your patient has received a home therapy exercise guide. THESE BEGIN SIX WEEKS AFTER SURGERY. You should review this home exercise program with the patient.

Do not add or skip any part of this program. If you have concerns, please contact your surgeon.

GENERAL INSTRUCTIONS:

Modalities

Level-1 evidence supports the use of cryotherapy. Patients are encouraged to use cryotherapy after surgery.

Sling Use

A sling with a small pillow is to be worn for six 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.

Instructions for the Therapist

Activity Restrictions

- Showering: 48 Hours
- Deskwork: When comfortable with sling
- Driving: Not until sling is off at 6 weeks
- Using arm for Activities of Daily Living: 6 weeks
- Using arm to reach overhead: 12 weeks
- Using arm to reach behind back: 6 weeks
- Using arm to carry objects: 6 weeks
- Pushing/Pulling: 6 weeks
- Sport/Heavy Activity: When finished with therapy program

Exercise Program

Therapy is to begin 6 weeks after surgery. Exercises should be performed once per day at home or with a therapist. The exercise program is divided into four time-dependent phases. **Do not advance into the next phase until the appropriate time after surgery.**

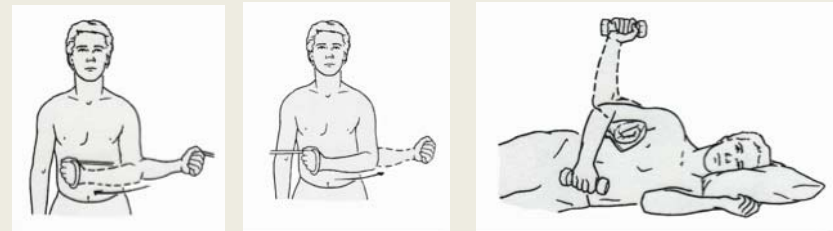
Questions/Concerns

If you have questions or concerns, please contact the patient's physician. Questions or concerns regarding the rehabilitation protocol may be sent to the MOON Shoulder Group research hub, listed on the back of this book.

Phase 4: Resisted Exercises (18-22 Weeks after Surgery)

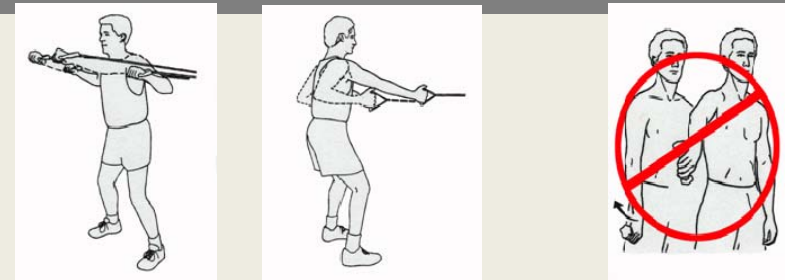
Phase 4: Resisted Exercises 18-22 Weeks.

After 18 weeks, the patient can begin strengthening with resisted exercise using elastic bands and/or hand weights. Resisted exercises should be done 3 days per week. Each exercise should be performed as 10-15 repetitions followed by 2 minutes of rest, and repeated 3-4 times.



ROTATOR CUFF STRENGTHENING

With the arm tucked close to the body, use rubber tubing to provide resistance to internal rotation of the arm. Turn around to use the tubing to provide resistance to external rotation of the arm. Alternatively, you may lie on your side and use small hand weights to provide external rotation resistance. Do 10-15 repetitions, for 3-4 sets, for 3 days/week.



DELTOID STRENGTHENING

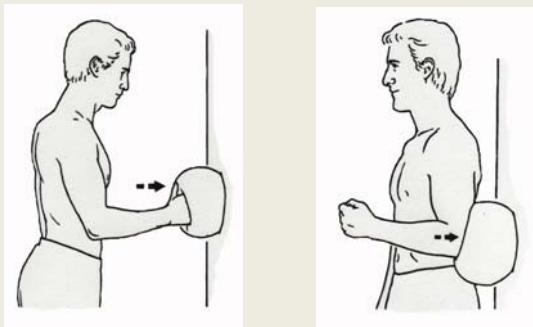
With the arm tucked close to the body, use rubber tubing to provide resistance to forward punches. Turn around to use the tubing to provide resistance to pulling the arm. Do 10-15 repetitions, for 3-4 sets, for 3 days/week.

DO NOT DO FULL-CAN OR EMPTY-CAN EXERCISES! These place too much stress on the rotator cuff.

Phase 3: Isometric Exercise (14-18 Weeks after Surgery)

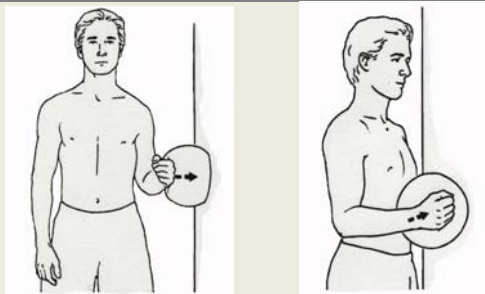
Phase 3: Isometric Exercises 14-18 Weeks

Beginning 14 weeks after surgery the patient can begin isometric exercises. Using a pillow or folded towel the patient applies pressure to the wall without moving the shoulder.



ISOMETRIC PUSH AND PULL

With a pillow against the wall, and the arm tucked close to the body, create pressure with the fist for forward push, and with the elbow to push backward. Hold the position for 15 seconds then rest for 30 seconds. Repeat this 10-15 times. This can be done daily.



ISOMETRIC EXTERNAL AND INTERNAL ROTATION

With a pillow against a wall, and the arm tucked close to the body, create pressure with the back of the hand for external rotation, and with the palm of the hand for internal rotation. Hold the position for 15 seconds then rest for 30 seconds. Repeat this 10-15 times. This can be done daily.

Instructions for the Therapist

EXERCISE PROGRAM: Therapy begins 6 weeks after surgery. Exercises should be performed daily supervised by a therapist 1-3x/week, and at home on the other days.

Phase 1: Passive Range of Motion 6-10 Weeks

Passive range of motion begins 6 weeks after surgery. Passive range of motion requires the therapist or an assistant at home to put the arm through a comfortable range of motion while the patient is supine. Motions include forward elevation, external rotation, and abduction— all within a comfortable range. Pendulum exercises are begun during this time. Scapula exercises begin at 6 weeks. Scapula exercises should include shrugs, depression, retraction and protraction. Hand, wrist, and elbow motion should be done ad lib.

Phase 2: Active Assisted Range of Motion 10-18 Weeks

This phase introduces active assisted range of motion. The patient lies supine and uses their other arm (or cane or stick) to move the affected arm into forward elevation, external rotation, and abduction. The patient does this supine at week 10, 45 degrees upright for week 11, and completely upright at week 12. After week 12, the patient can use pulleys for forward elevation.

Instructions for the Therapist

Phase 3: Active Range of Motion 14-18 Weeks

While continuing to work on active assisted motion, the patient now begins active range of motion in forward elevation, external rotation, and abduction. In addition, isometric strengthening exercises begin at this time.

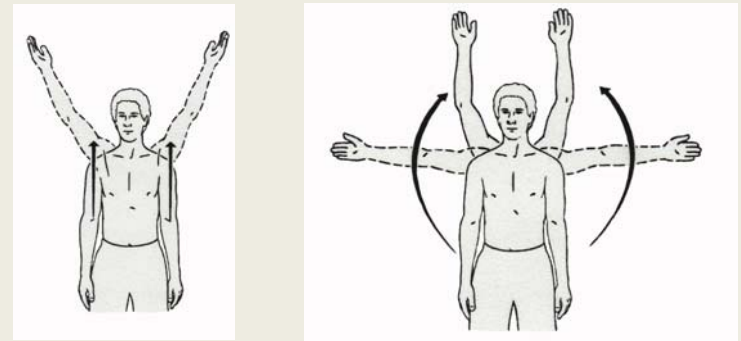
Phase 4: Resisted Exercise 18-22 Weeks

After 18 weeks the patient can begin strengthening with resisted exercise using an elastic band or hand weights. Scapula muscle strengthening exercises are introduced. **Full-and Empty -Can exercises are not allowed!**

Phase 3: Active Motion (14-18 Weeks after Surgery)

Phase 3: Active Range of Motion 14-18 Weeks

While continuing to work on active assisted range of motion, the patient now begins active range of motion in forward elevation, external rotation and abduction. In addition, isometric strengthening exercises begin at this time. These exercises can be done daily.



ACTIVE RANGE OF MOTION

While upright, the patient moves the arm in front of the body (forward elevation) and to the side of the body (abduction).



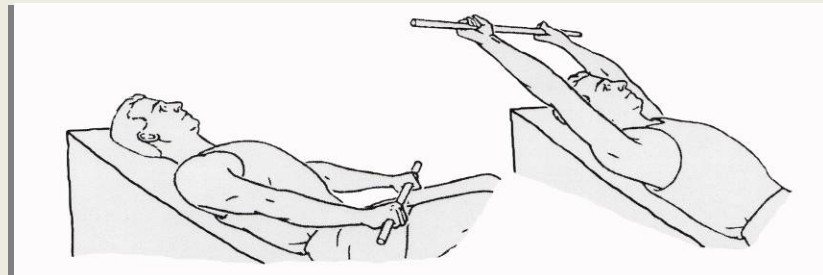
ACTIVE RANGE OF MOTION

It is important to avoid "hiking" the shoulder. Place the uninvolved hand on the affected shoulder, or do these exercises in front of a mirror to avoid this.

Phase 2: Active Assisted Motion (11-14 Weeks after Surgery)

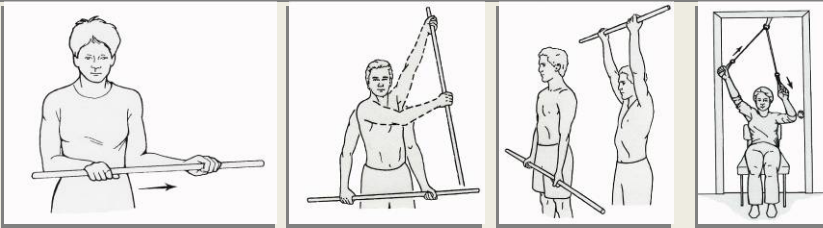
Phase 2: Active Assisted Range of Motion 11-14 Weeks

Eleven weeks after surgery the patient's back is propped up approximately 45 degrees and uses the unaffected arm to move the postoperative arm (or a cane or stick) into forward elevation, external rotation, and abduction. After twelve weeks, the patient can do these exercises while upright. These exercises can be done daily.



45 DEGREE ACTIVE ASSISTED RANGE OF MOTION

While propped on a pillow at 45 degrees and using a stick or cane, the normal arm will move the affected arm over the head. The arm is moved in forward elevation, abduction, and external rotation. This begins 11 weeks after surgery and is done daily.



UPRIGHT ACTIVE ASSISTED RANGE OF MOTION

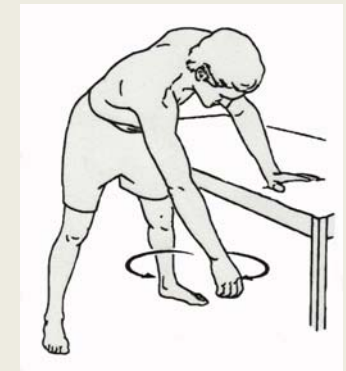
Twelve weeks after surgery using a stick or cane, the normal arm will move the affected arm in external rotation, abduction and forward elevation while upright. Sitting in a chair while using pulleys is allowed at this time as well. These exercises should be done daily.

Phase 1: Passive Motion (6-10 Weeks after Surgery)

Phase 1: Passive Range of Motion 6-10 Weeks

Passive range of motion is to begin 6 weeks after surgery. Passive range of motion requires the therapist or an assistant at home to put the arm through a comfortable range of motion while the patient is supine. Motions include forward elevation, external rotation, and abduction—all within a comfortable range. These exercises are done with each therapy visit, three times each week.

In addition, pendulum exercises can be initiated during this time. These can be done at home, twice each day.



PASSIVE RANGE OF MOTION

The patient lies supine and relaxes. The therapist will move the arm. The patient should relax and should not contract any muscles while the therapist moves the arm. This should be done at each therapy visit, three times each week.

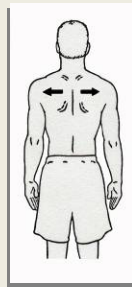
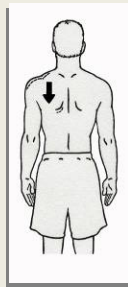
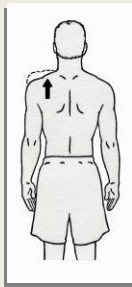
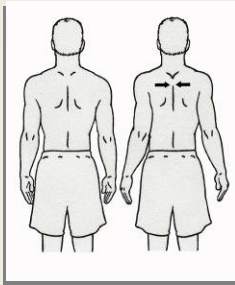
PENDULUM EXERCISES

Use torso to move arm by rocking body weight. Go in clockwise direction then counter clockwise. Pendulum exercises can be done twice each day.

Phase 1: Scapula Exercises (6-18 Weeks after Surgery)

Phase 1: Scapula Stabilizer Exercises

Scapula exercises begin after 6 weeks. Scapula exercises should include elevation with shrugs, depression, retraction and protraction. These are done out of the sling until strengthening exercises begin, 18 weeks after surgery. These exercises can be done daily.

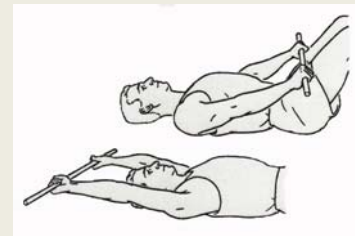


SCAPULA EXERCISES
These can be done daily.

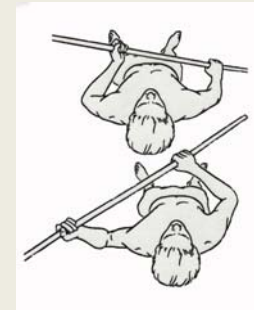
Phase 2: Active Assisted Motion (10 Weeks after Surgery)

Phase 2: Active Assisted Range of Motion 10 Weeks

This second phase of therapy begins with active assisted range of motion, and starts 10 weeks after surgery. The patient lies supine and uses the unaffected arm (or a stick or cane) to move the postoperative arm into forward elevation, external rotation, and abduction. These can be done daily.



SUPINE ACTIVE ASSISTED FORWARD ELEVATION
Using a stick or cane, the normal arm will move the affected arm over the head.



SUPINE ACTIVE ASSISTED EXTERNAL ROTATION
Keep the affected arm tucked close to the body. Bend the elbow to 90 degrees so the hand is pointed to the ceiling. Using a cane, the healthy arm moves the affected arm in external rotation.



SUPINE ACTIVE ASSISTED ABDUCTION
While keeping the elbow of the affected arm straight, the unaffected arm will move the affected arm out to the side of the body as high as is comfortable.