



ROTATOR CUFF REPAIR REHABILITATION

NAME:

DIAGNOSIS :

PROCEDURE:

DATE:

This handout describes details of the post-operative care of your shoulder. The rehabilitation of your shoulder after surgery is essential for the success of your treatment. Your surgeon and physiotherapist will advise you on the specifics of your rehabilitation, but the ultimate responsibility to exercise consistently is yours.

The main goals of rehabilitation are:

1. Healing of the rotator cuff muscles
2. Restoration of full shoulder motion
3. Restoration of shoulder strength and function

Wear immobilizer for _____ weeks.

Avoid unassisted shoulder movement. Do not use the muscles of your operated shoulder to move your arm away from your side. This can lead to a tearing of the repair.

Phase:	1: Passive motion			2: Active motion	3: Strengthening	
	0 weeks	2 weeks	4 weeks	6 weeks	3 months	6 months
Sling wearing	✓	✓	✓	Wear	✗	✗
Range of motion:						
Passive ROM	ER only	ER only	ER + flexion	✓	✓	✓
Active ROM	✗	✗	✗	✓	✓	✓
Stretching	✗	✗	✗	✓	✓	✓
Strengthening:						
Rotator Cuff	✗	✗	✗	✗	✓	✓
Scapular stabilizers	✗ ✓	✓	✓	✓	✓	✓
Deltoids/Pecs	✗	✗	✗	✓	✓	✓
Return to activity:						
Sedentary work	✗	✓	✓	✓	✓	✓
Light work	✗	✗	✗	✗ ✓	✓	✓
Moderate work	✗	✗	✗	✗	✗ ✓	✓
Heavy work	✗	✗	✗	✗	✗	✗ ✓
Throwing	✗	✗	✗	✗	✗ ✓	✓
Non-contact training	✗	✗	✗	✗	✗ ✓	✓
Return to sport	✗	✗	✗	✗	✗	✗ ✓

**PHASE 1: (WEEKS 0 – 6) EARLY HEALING AND PASSIVE MOTION PHASE****GOALS:**

1. Control of pain and inflammation
2. Commence passive arm movements to avoid stiffness
3. Protect the repair to allow early healing to occur

Passive Range of Motion (ROM) Exercises:

Early passive range of motion is highly beneficial to enhance circulation within the joint to promote healing. It also helps to limit the stiffening effects of surgery and sling immobilization. ROM exercises are prescribed with specific limits depending on the pattern of tear, in order to avoid damaging the repaired tendons.

Read the Shoulder Surgery – Initial Rehabilitation for full description of the initial post-operative program.

Do not use the muscles of your operated arm to move the shoulder. Stop if you begin to feel significant discomfort in the involved shoulder. The exercises should be done 3-5 times per day, holding the stretch for about 30 seconds, before gently releasing. Repeat 3-4 times per set.

- | | |
|------------------|-----------------------------------|
| 1 week post-op: | Start external rotation exercises |
| 1 week post-op: | Scapula exercises |
| 4 weeks post-op: | Elevation and pendulum exercises |

1. External rotation

Lie on your back. Hold a pole (eg broom handle or ski pole) with your arms by your sides and elbows bent to 90°. Support the involved shoulder's elbow throughout the movement on a rolled towel (about 15cm high). With your uninvolved arm gently rotate the operated arm outwards. Do not let your elbow move away from the side of your body.



Max allowed motion: 0° 45° 60° Full





2. Scapula exercises

The muscles around the scapula (shoulder blade) are important in helping to position and stabilize the shoulder for arm movements. Before surgery, these muscles can be weak or can function abnormally to compensate for the shoulder injury. After surgery, there is a tendency to hunch the shoulder blades up and forwards. Concentrate on keeping your shoulders back and down while wearing the sling.

A. Scapular retraction

Sit with sling on. Draw your shoulder blades back to squeeze them together behind your back. Hold for 5 seconds and then slowly release. Repeat 10 times.

B. Shoulder circles

Shrug your shoulder blades forward, up, back and then down in a circle. Repeat with both forward and backward circles 10 times in each direction.



3. Elevation

Lie on your back and use your good arm to grasp your involved elbow. Gradually lift your involved arm upwards over your head. This movement may be tight, *but should not be painful*.

The aim is to get to at least 90°.

Hold for 20 seconds and then slowly lower the arm to the starting position.

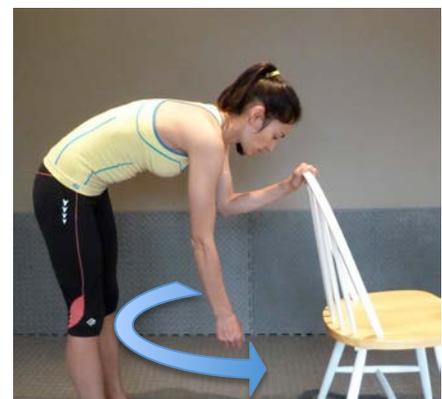


4. Pendulums

Stand behind a chair or support and lean forward. Gently let the involved arm hang down freely and relaxed.

Swing your arm forwards, backwards, sideways and in circles, using gravity to help you.

Initially perform this exercise for 1-2 minutes, 3-4 times (rest between sets). Eventually you will be able to let the arm hang at 90°.



To progress to phase 2, you require a good passive range of motion in all directions. This will be assessed at your 6 week appointment



ACTIVITIES

- Return to sedentary work after 2 weeks or so.
- Return to sedentary activities of daily living.
- No driving during this period at all.

PHASE 2: (WEEKS 6 – 12) PROTECTIVE ACTIVE MOTION PHASE

GOALS:

1. Continue stretching and ROM exercises to restore full motion
2. Commence active arm movements while protecting repair
3. Restore normal shoulder movement patterns

By six weeks after rotator cuff repair, the tendons are beginning to heal. They have enough strength to safely tolerate movements of the arm. At the 6 week appointment the sling can be discarded and active movement begun. Move in **slow, controlled manner** without any weights or resistance.

We will assess your range of movement and advise on appropriate additional stretching exercises.

ACTIVE MOTION EXERCISES

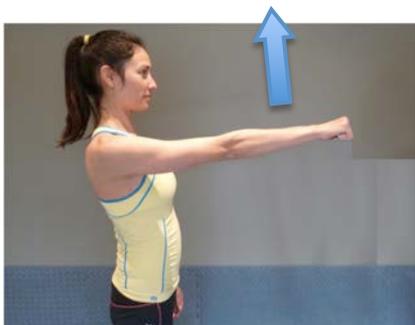
1. *Shoulder blade exercises*

A. Continue with the scapular exercises described in phase 1. Performing 3 set of 10 reps

B. Bending over into the pendulum position, squeeze your shoulder blades together behind you. Hold for 5 seconds, then slowly release. Repeat 10 times. Repeat 2-3 times per day.

2. *Forward flexion*

Elevate your arm forwards as far as comfort allows, slowly lower to the starting position. Repeat as tolerated, slowly building up to 3 sets of 10 repetitions.





3. External rotation

Lying on your unaffected side, rotate your arm outwards against gravity as far as comfortable, slowly return it to the starting position. Repeat as tolerated, slowly building up to 3 sets of 10 repetitions.

This should be repeated with your arm held in front of you, the elbow supported on pillows or books, using the same external rotation movement.



4. Upper body ergometer

This can be commenced under the guidance of your physiotherapist. Axis must remain below shoulder height. Slow and controlled motion, primarily being driven by your non-operated arm.

5. Pulley-assisted overhead motion

Attach pulley overhead, directly above the knees.

Sit in a chair, holding the rope in each hand.

Slowly pull your good arm downward to lift your operated arm upwards. Take the movement as far as you can comfortably go.

Assisted by your good arm, slowly lower the involved arm down.

3 sets of 10 repetitions.



ACTIVITIES

Driving should be delayed until you are fully weaned from the sling, moving the arm well and have good strength to react if required.

You can commence doing occasional overhead activities (eg assisting other arm while washing hair)

Avoid lifting anything more than a cup of coffee, and no lifting at all with your arm held away from your body.

To progress to phase 3, you require a *full* active range of movement.



PHASE 3: (WEEKS 12 – 18) EARLY STRENGTHENING PHASE

GOALS:

1. Continue stretching and ROM exercises to maintain full motion
2. Commence strengthening and endurance program
3. Graduated return to sport-specific training and light work activities

By this stage, the healing of tendon back to bone is largely completed and is strong enough to begin strengthening the shoulder. Because much of the pain of a rotator cuff tear is related to weakness and shoulder dysfunction, you may still be experiencing significant discomfort in the shoulder, especially as the muscles fatigue. Continuing your rehabilitation and strengthening the muscles will improve the shoulder symptoms remarkably, although it will take time and effort.

RANGE OF MOTION EXERCISES

Continue the exercises from phase 1. In addition, we will reassess your ROM at the 3 month check and advise you on any further stretching you will need to do.

STRENGTHENING EXERCISES

1. Theraband strengthening

Using a progressive resistance elastic (Theraband) to provide resistance for four movements. In each movement aim for 3 sets of 10 repetitions. Increase the resistance of the band if completing the exercises easily. As for the stretching exercises. Take the movement to the end of your comfort zone, then push a little further and hold for several seconds before backing off.

1. External rotation.

Have the band secured at waist height (a door handle is good) on the side opposite the exercising shoulder. Keeping the elbow to the side, rotate the hand outwards as far as you can comfortably go. Slowly return to the start position

2. Internal rotation

Keep the band in the same place, but turn around, so the band is under tension with your arm rotated outwards in the finishing position of external rotation. Rotate the arm in to touch your belly. Slowly return to the starting position.

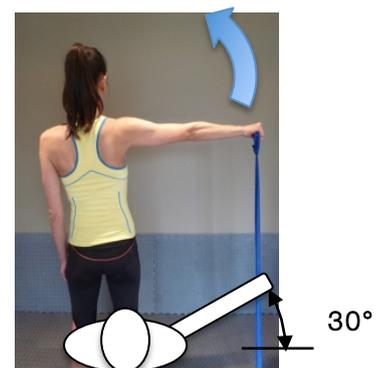
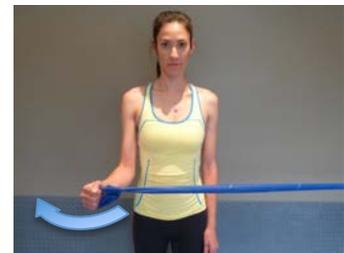
3. Forward flexion

Have the theraband secured around your foot. Start with your arm straight, about waist height. Raise your arm against the resistance of the band. Raise your arm as far as is comfortable plus a bit more, hold for

several seconds, then slowly lower.

4. Abduction

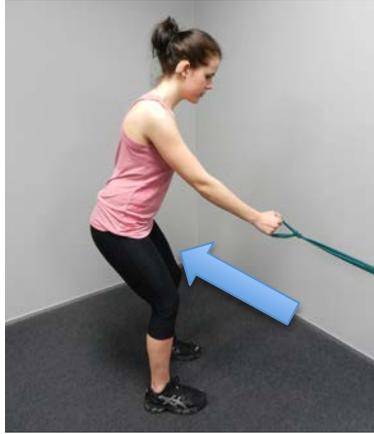
Again, the theraband is secured at foot level. Have your arm about 30° forwards of being straight out to the side. Raise your arm against the resistance of the band. Raise your arm as far as is comfortable plus a bit more, hold for several seconds, then slowly lower.





5. Cable rows

Secure the theraband at ground level. Keeping the elbow close to your body draw your arm backwards. 3 sets of 10 repetitions. (This exercise can be varied by rotating your arm outwards, so your forearm and palm are facing forwards. Repeat the same motion of extending the arm back, while keeping the elbow close to the body).



STABILIZATION AND COORDINATION EXERCISES

1. Wall push-ups

A. Stand about 20cm from the wall.

Place your hands against the wall palms flat and fingers up. Lean towards the wall by bending your elbows. Slowly alternate pressure from one shoulder to the other by rocking from side to side.

Hold for 30 seconds, repeat 3 times

B. Once performing this easily, move your feet further away from the wall.



2. Seated Stabilization

Sit on a bench or chair firm chair with your hands on the chair. Lean from one side to the other, putting gradually increasing weight through each arm to support you on either side as you slowly rock side to side. 3 sets of 10 repetitions.

ACTIVITIES

You can now commence light lifting at and below waist level, maximum 2 kg above waist and 5 kg below waist height. Once comfortably doing this, the amount lifted can be increased as tolerated.

You can begin non-repetitive overhead activity, no overhead lifting except as prescribed above.

Avoid any sudden lifting or pushing activities.

To progress to phase 4, you must have the ability to perform low-level functional shoulder activities and have adequate restoration of strength and dynamic stability in your shoulder



PHASE 4: (WEEKS 19 - 24) ADVANCED STRENGTHENING PHASE

GOALS:

1. Maintain range of motion with passive and active stretching as required
2. Continue strengthening and commence machine weights in gym
3. Increase functional activities with graduated return to overhead working activities

In returning to sport, graduated reintroduction of overhead and sport-specific training should be carried out in consultation with your physiotherapist. Activities should not cause pain.

Note the average timetable for expected return to activities on the front page. In some cases with severe tears, or impaired healing (due to smoking, diabetes or other conditions) the rate of progress may be slower. We can expect to see ongoing improvements for 18 months or more following surgery.

STRENGTHENING EXERCISES

1. Theraband strengthening

Continue all of the exercises from phase 3. If finding them easy, increase to 5 sets of 20 repetitions per set. If this is still easy, increase the resistance band strength.

2. External rotation at shoulder height

Have the band secured at shoulder height on the side opposite the exercising shoulder. Start with the elbow at shoulder height. Without moving your elbow, rotate your hand back behind you as far as you can comfortably go. Slowly return to the start position.

3 sets of 10 repetitions.

*3. Internal rotation at shoulder height*

Keep the band in the same place, but turn around, so the band is under tension with your arm rotated outwards in the finishing position of external rotation. Now, without moving your elbow, rotate your hand downwards until it is facing directly forwards. Slowly return to the starting position. 3 sets of 10 repetitions.

Once doing this easily, progress the movement by raising the elbow above shoulder height as shown here.





4. Machine weights

You can now start doing some gym-based machine weight strengthening. It is critical that you don't try and push the amount of weight at this point. The principle is proper technique, lower resistance and higher repetitions.

For each exercise, 3 sets of 10 repetitions to start with. Increasing to 20 repetitions per set as tolerated.

1. Chest press

Make sure that when lowering the handles towards your chest, that your elbows do not drop back behind the plane of your shoulders. When extending out, don't lock your elbows in full extension.



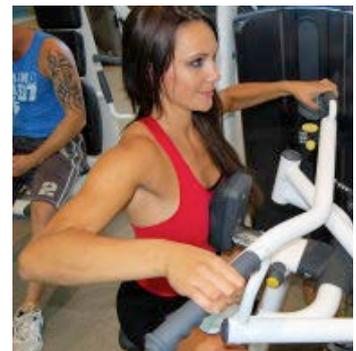
2. Military or shoulder press

Have the bar or handles *in front* of the plane of your shoulder (ie not coming down behind your neck).



3. Seated rows

These can be performed with both a narrow grip and wider grip (shown) for variation. The finishing position for the wide grip row is shown here. Again, avoid pulling the elbow back behind the plane of the shoulder when doing the wide grip variation



4. Latissimus pull-downs

Like seated rows, these can be performed with a wide grip (shown), or a narrow grip. When using a narrow grip, have your palms and forearms facing towards you. Aim for 3 sets of wide grip and 3 sets of narrow.





STABILIZATION AND COORDINATION EXERCISES

Continue phase 3 exercises

1. Cobra pose

This exercise promotes good posture and strengthens the back muscles to place the shoulder in a better position for pain-free function.

Lying face down, turn the hands so your palms face down (or outwards if you are really flexible) thumbs are facing out away from your body. Open out and extend using your back muscles to lift your chest from the floor. Hold for 30 seconds. 3 repetitions. Gradually increase the duration of the pose as you get stronger.



Swiss ball stability

Kneeling down, place both hands on the sides of a Swiss ball and lean forwards. Hold this position for 30 seconds. 3 repetitions. To increase the intensity, increase the duration of the pose and move your knees further away from the ball. Once comfortably performing two-handed, do the same exercise one-handed.



ACTIVITIES

You may return to repetitive overhead work and heavier physical work in a graduated manner as tolerated. Return to full-contact sports after about 6 months.

To return to contact sports, you require:

1. A full range of motion for your sporting activities
2. Strength within 10% of the other side
3. Stability exercise tolerance within 10% of the other side.