



## INSTABILITY REHABILITATION PROTOCOL

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 repaired labrum
2. Restoration of full shoulder motion
3. Restoration of shoulder strength and function

Wear immobilizer for \_\_\_\_\_ weeks.

## REHABILITATION PLAN

Activity	0 weeks	2 weeks	4 weeks	6 weeks	3 months	6 months
Sling wearing	✓	✓		✗	✗	✗
Range of motion			Wear			
Passive ROM	✓	✓	✓	✓	✓	✓
Active ROM	✗	✓	✓	✓	✓	✓
Strengthening						
Rotator Cuff	✗	✗	Theraband	Light weights	✓	✓
Scapular stabilizers	✓	✓	✓	✓	✓	✓
Deltoids/Pecs	✗	✗	✗	✓	✓	✓
Return to :						
Sedentary work	✗	✓	✓	✓	✓	✓
Light work	✗	✗	✗	✓	✓	✓
Moderate work	✗	✗	✗	✗	✗ ✓	✓
Heavy work	✗	✗	✗	✗	✗	✗ ✓
Throwing	✗	✗	✗	✗	✗ ✓	✓
Non-contact training	✗	✗	✗	✗	✗ ✓	✓
Contact training and sport	✗	✗	✗	✗	✗	✗ ✓





## PHASE 1: (WEEKS 0 – 2) 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 day post-op:  | Scapula exercises                                       |
| 1 week post-op: | Start external rotation, pendulum and flexion exercises |

*Scapular 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.

*1. 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.

*2. Shoulder circles*

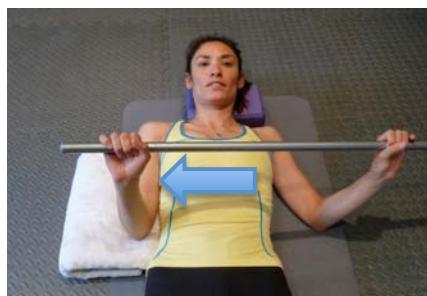
Shrug your shoulder blades forward, up, back and then down in a circle. Repeat with both forward and backward circles 10 times in each direction.





### 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 unininvolved arm gently rotate the operated arm outwards. *Do not let your elbow move away from the side of your body.*



Max allowed motion:      0°       30°       45°

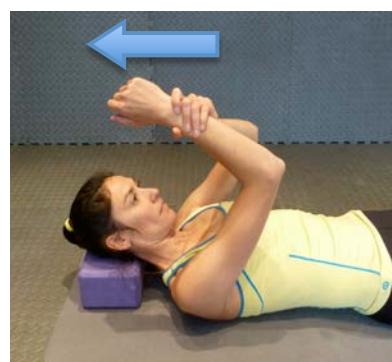


### Elevation

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.



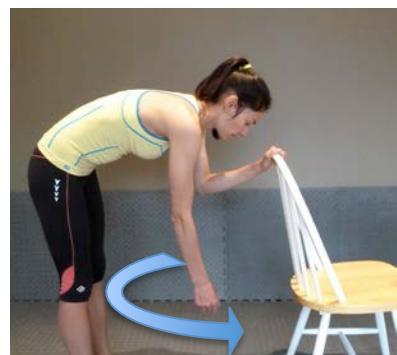
### Pendulums

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°.





## PHASE 2: (WEEKS 2 – 4) PROTECTED ACTIVE MOTION PHASE

## GOALS:

1. Commence active arm movements while protecting repair
2. Restore normal shoulder movement patterns
3. Start training shoulder stabilizing muscles
4. Begin sedentary activities of daily living, return to sedentary work

At 2 weeks, active movement can begin. Move in **slow, controlled manner**. This will limit the weakness your muscles develop after surgery.

You can wean off the sling over the next 2 weeks. Keep using it for comfort, or when out in crowds etc.

## RANGE OF MOTION EXERCISES

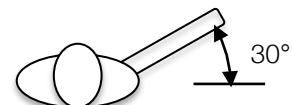
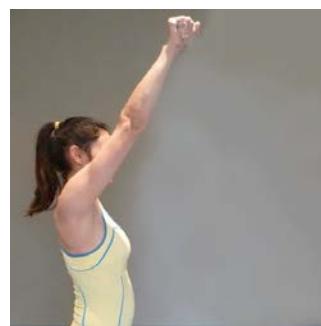
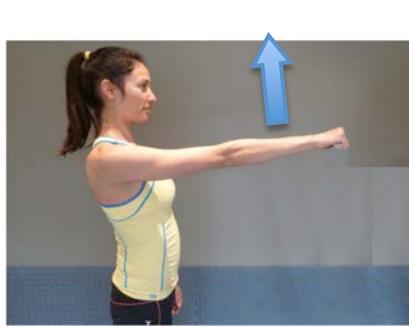
Continue the exercises from phase 1.

## STRENGTHENING EXERCISES

**1. Elevation: forwards and in the scapular plane**

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.

Move your arm out to the side as indicate in the diagram ( If you were standing with your back against a wall, your arm would be facing 30° forwards of the wall). Repeat the elevation movement in the 30° plane. Repeat as tolerated, slowly building up to 3 sets of 10 repetitions.

**2. 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.





### 3. Isometrics (Exercises where you use the muscles without moving the arm).

#### *Internal rotation*

Standing with inner forearm against the wall and your elbow at your side. Push your hand against the wall trying to rotate your forearm into your body. Keep pushing for 10 seconds then relax. 3 sets of 10 repetitions.



#### *External rotation*

In this case stand beside a wall with the outside of your bent forearm against the wall. Push outwards against the wall. Keep pushing for 10 seconds and then relax. Repeat 3 sets of 10 repetitions.



### 4. Shoulder blade exercises

1. Continue with the scapular exercises described in phase 1. Performing 3 set of 10 reps
2. 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.

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## 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.

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## ACTIVITIES

Return to sedentary work

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

Return to sedentary activities of daily living.



## PHASE 3: (WEEKS 4 –6 ) ACTIVE MOTION PHASE

## GOALS:

1. Continue range of motion exercises and add resistance training to these
2. Progress stabilization and strengthening exercises
3. Return to daily activities as tolerated (no sports or physical work)

## RANGE OF MOTION EXERCISES

Continue the exercises from phase 1.

External rotation can be progressed to 60° as tolerated.

Start internal rotation exercises (ie moving hand past your buttock and sliding it up your back)

## 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**

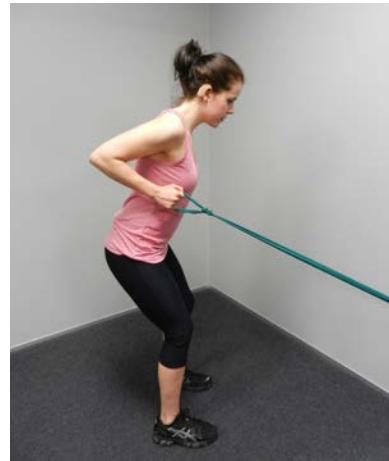
Again, the theraband is secured at foot level. Have your arm about 30° forwards of being straight out to the side. Raise your arm against the resistance of the band. Raise your arm as far as is comfortable plus a bit more, hold for several seconds, then slowly lower.

Once performing this comfortably, you can take your arm fully out to the side and repeat the exercise.



### 5. Cable rows

Secure the theraband at ground level. Keeping the elbow close to your body draw you 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.



### 6. Seated press-ups

Sit on a firm chair and using your arms, raise your body off the chair. Hold for 5 seconds and lower. Repeat 3 sets of 3 repetitions. Progress the exercise by increasing the duration of the hold.

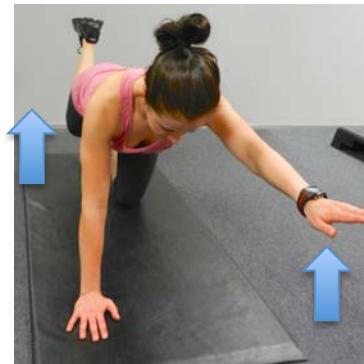
## STABILIZATION AND COORDINATION EXERCISES

Continue with the wall press-ups and seated stabilization exercises from phase 2

### 1. 4 point to 2 point kneeling

Kneel on all fours. Rock your weight onto your operated shoulder to get the stabilizing muscles activated. Hold for 10 seconds, then rock back the other way. Repeat 5 times.

Once this is easy Lift your good shoulder and opposite knee so that your weight is going through your sore shoulder. Hold for 30 seconds. Repeat 3 times. Gradually increase the duration of the pose as you get stronger.





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**PHASE 4: (WEEKS 6 – 12) STRENGTHENING PHASE**

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**GOALS:**

1. Progress range of motion with passive and active stretching as required
2. Continue strengthening and commence machine weights in gym
3. Increase functional activities

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**RANGE OF MOTION EXERCISES**

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At the 6-week clinic visit we assess your shoulder range of motion. We will then prescribe you specific stretching exercises depending on your progress. You should continue all of your active range of motion exercises as well.

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**STRENGTHENING EXERCISES**

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***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 outwards (back and upwards) 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.



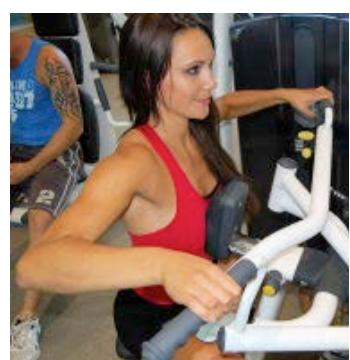
##### 2. Military or shoulder press

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.





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## STABILIZATION AND COORDINATION EXERCISES

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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.



### 2. 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.



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## ACTIVITIES

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You can now commence light lifting at and below waist level, maximum 5 kg above waist and 10 kg below waist height.

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



## PHASE 5: (WEEKS 12 – 24) FUNCTIONAL PHASE

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### GOALS:

1. Full or sufficient range of motion to perform sporting and work activities
2. Strengthening to within 10% of the normal side
3. Graduated return to full functional activity and sport-specific training

### RANGE OF MOTION EXERCISES

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Continue both active and passive ROM exercises as required to improve or maintain functional range. These will be prescribed as in phase 4.

### STRENGTHENING EXERCISES

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Continue phase 3 and 4 strengthening exercises.

You can now start doing free weights, chest flies and incline flies. Still avoid over-extending the elbows.

### ACTIVITIES

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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. No instability symptoms
2. A full range of motion for your sporting activities
3. Strength within 10% of the other side
4. Stability exercise tolerance within 10% of the other side.