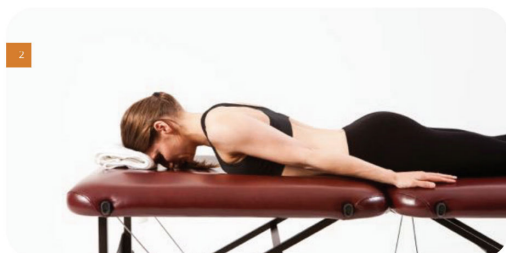
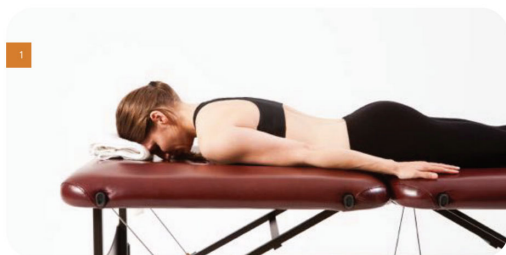


## Level 3 Shoulder Exercises



WATCH ON  
 YouTube

### PRONE SCAPULAR POSITIONING



Lying on your front with your forehead resting on a rolled towel keeping your neck in neutral. Place your arms by your sides palm down. Open up across your chest drawing your shoulders away from the bed then lift your hands a few centimetres. Finally take the pressure off your forehead ensuring you keep your chin tucked in. Do not lift your chest off the bed.

Tip: keep elbows soft to prevent latissimus dorsi activation

#### CLINICIAN NOTES:

Choice of arm position will increase the activation levels of different parts of the trapezius muscle and target different components of the rotator cuff and deltoid.

Whilst lifting the arm at the side is commonly thought to target lower trapezius in reality it preferentially recruits middle fibres of trapezius.

Refs: Cools et al 2007, Arlotta et al 2011, Andersen et al 2012

### ACTIVE FLEXION IN LYING SHORT TO LONG LEVER

EARLY



Lying on your back with your arm supported and your elbow bent to 90°. Lift your arm up keeping your elbow bent. Then straighten your elbow and take the arm over your head.

#### Progression:

As this gets easier increase the upper body position with a pillows so it becomes more difficult as you gently introduce the effects of gravity on the arm movement.

#### CLINICIAN NOTES:

Patients with shoulder pain often adapt movement patterns where they less the elbow. Short to long lever exercises reinforce scapular movement of the

## BALANCE POINT CIRCLES IN LYING

EARLY



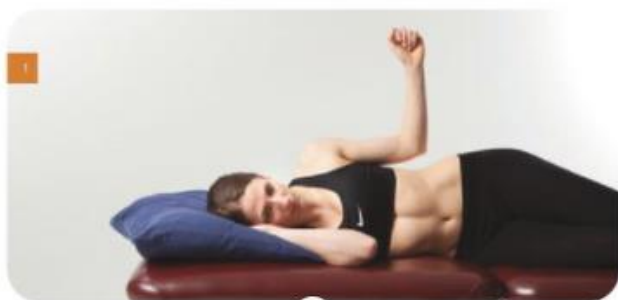
Lying on your back with your arm at 90°, move your arm in small circles first clockwise then anti-clockwise.

Progression:

As this gets easier increase the upper body position with a pillows so it becomes more difficult as you gently introduce the effects of gravity on the arm movement.

## SHORT LEVER ABDUCTION IN SIDE LYING

EARLY



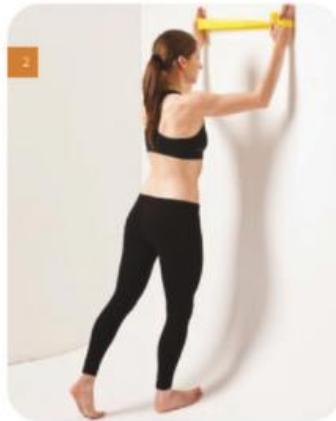
Lying on your unaffected side and keeping your elbow bent at roughly 90° throughout the exercise, take your arm over your head. Return to your start position.



## Level 3 Shoulder Strengthening Exercise- Early

### WALL SLIDES (WITH OR WITHOUT RESISTANCE BAND LOOP)

INTERMEDIATE



Standing with good posture facing the wall. Loop a resistance band around your hands/ wrists with your little fingers placed on the wall. Slide your hands up the wall, keeping in contact with the wall throughout the movement. Continue as high as comfortable gently pushing the resistance band out to the side. Return to your start position. Do not force a stretch.

Adaptation Easier - Place the hands on the wall with the elbows flexed. Keeping the hands in contact with the wall, continue as high as comfortable.



Adaptation Easier:



#### CLINICIAN NOTES:

Lower quadrant inclusion in the wall slide exercise encouraging sequential activation patterns throughout the kinetic chain and enhancing scapula recruitment.

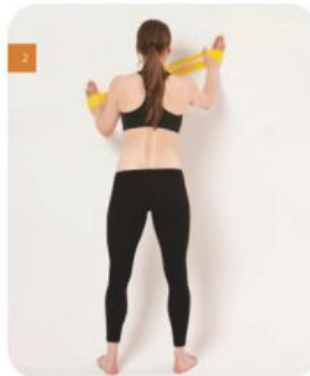
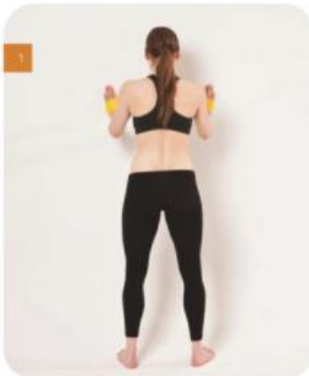
Supporting limb load on the wall and moving short to long lever keep within the safe zone.

The addition of resistance band reinforces activation of the posterior however it is important to push out into the band rather than pull in pectoralis major and biceps, whereas pushing out biases the posterior.

Refs: Hardwick et al 2006, Uhl et al 2010, Park et al 2013, Jur et al 2011

### SPIDERMAN

INTERMEDIATE ROM



Start in a gentle squat position if able. Hands inside a looped resistance band, pushing it apart. Keep tension on against the band and walk hands up the wall as high as you can reach. Straighten legs. Then return back down to start position.



#### CLINICIAN NOTES:

The resistance band loop reinforces recruitment of the posterior rotator cuff through lower quadrant inclusion in the wall slide exercise emphasises sequential activation patterns throughout the kinetic chain and enhances scapula recruitment.

### 4 POINT KNEELING LATERAL GLIDES WITH RESISTANCE BAND

INTERMEDIATE	ROM
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Kneeling on your hands and knees, place a loop of resistance band around your hands. Using a towel or a low friction cloth slide your affected hand on the floor away against the resistance and return to your start position. (Maintain scapula against chest wall).

### EXTERNAL ROTATION TO INTERNAL ROTATION IN SITTING WITH SUPPORT

INTERMEDIATE	ROM	S	P	C
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Sitting tall with your elbow supported on a table, maintain your shoulder blade control, slowly rotate your arm into external rotation. Then practice rotating into internal rotation. Looking at your hand through the movement may help with control.

REPEAT (TIMES)

Progression:



Progression:  
Take arm into 90° of abduction

**CLINICIAN NOTES:**

Some patients may struggle with prone or supine rotation exercises due to weakness or poor recruitment of the cuff. In addition, lying is also the least proprioceptive position. Performing the exercises in sitting increases proprioception of the trunk and upper limb and can help patients improve control.

Supporting the upper limb facilitates selective recruitment of the rotator cuff.

Refs: Janwantanaku et al 2003, Boettcher et al 2009, Dark et al 2007

## Level 3 Shoulder strengthening Exercises- Advanced

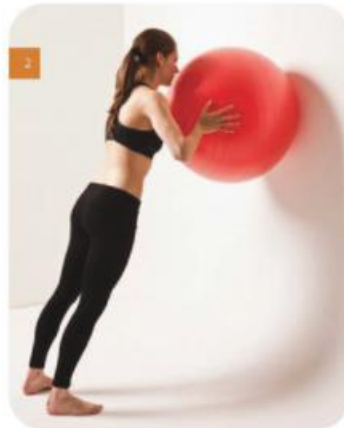
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### SWISS BALL PRESS UP AGAINST WALL

INTERMEDIATE

LATE

ROM



Standing facing a wall, with your feet hip width apart, Swiss Ball against wall at shoulder height. Hands on swiss ball, start with your elbows almost straight and then lean onto the ball and do a press up bending your elbows. Return to your start position. Ensure you stay open across your collar bones, your back straight and maintain a good neck position throughout the movement.

Tip: To make this exercise easier place ball in the corner of the room to stabilize the ball.

### EXTERNAL ROTATION IN STANDING WITH RESISTANCE LOOP

INTERMEDIATE



Stand with good posture. Put a resistance band looped around your hands/wrists keeping your elbows bent to 90° and thumbs upward. Comfortably, move your forearms out to the side stretching the resistance band and hold, then slowly release back to starting position.

Tip 1:

It is important that you do not over stretch and squeeze your shoulder blades together.

Tip 2:

Place a towel between your elbow and your side to help position your arm throughout the exercise

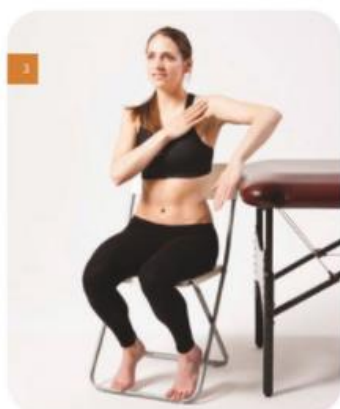
## EXTERNAL ROTATION / INTERNAL ROTATION IN SITTING UNSUPPORTED

INTERMEDIATE ROM



Sitting tall with shoulder and elbow at 90° unsupported. Shoulder blade stabilised throughout the movement. Slowly externally rotate the arm backwards as far as you comfortably can and slowly return. Repeat the opposite way forwards into internal rotation ensuring the shoulder blade does not compensate or move.

Progression:  
Add a small weight to the movement



Progression:

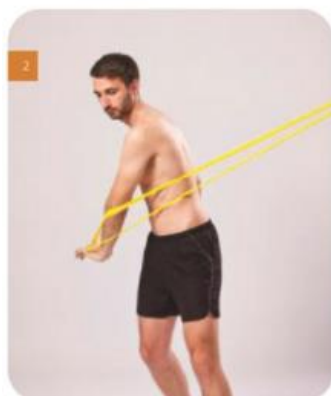
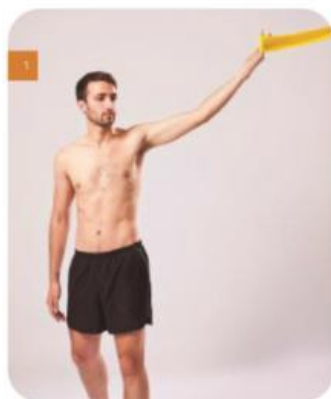
### CLINICIAN NOTES:

Performing arm rotation with the arm unsupported emphasises the mobilising role of the stability role of the scapula muscles latissimus dorsi and deltoid.

Refs: Alizadehkhayat et al 2015, Boettcher et al 2009, Tardo et al 2013

## DIAGONAL PATTERN 1 WITH RESISTANCE BAND

INTERMEDIATE ROM



Stand tall maintaining good posture. Attach the resistance band above your head securely. Pull the resistance band across your body, rotating your arm inwards and rotating your trunk away transferring your weight from one leg to the other. Control the return back to the starting position.

### CLINICIAN NOTES:

Exercises using the principles of proprioceptive neuromuscular facilitation have been shown to increase muscle activation in the non-exercised arm and also increase activation in the lower quadrant.

To increase their effectiveness ensure that you emphasise the rotation component of the movement.

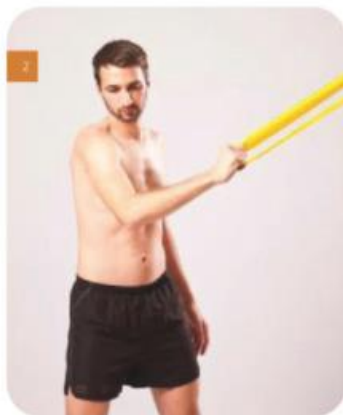
Light weight (1.5-2 kg) will have the same effect on muscle recruitment as using resistance.

This exercise has been shown to particularly target subscapularis.

Refs: Abreu et al 2015, Voss et al 1985, Sato et al 2009, Witt et al 2011, Hindle et al 2009

## DIAGONAL PATTERN 2 WITH RESISTANCE BAND

INTERMEDIATE ROM



Stand tall maintaining a good posture. Attach the resistance band above your head securely. Stand side ways with your affected arm farthest away from the band. Position your arm across your face with your palm facing backwards. Pull the band down and across your body towards the opposite hip transferring your weight from one leg to the other. Control the return back to the starting position.

### CLINICIAN NOTES:

Exercises using the principles of proprioceptive neuromuscular facilitation have been shown to increase muscle activation in the non-exercised arm and also increase activation in the lower quadrant.

To increase their effectiveness ensure that you emphasise the rotation component of the movement.

Light weight (1.5-2 kg) will have the same effect on muscle recruitment as using resistance.

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