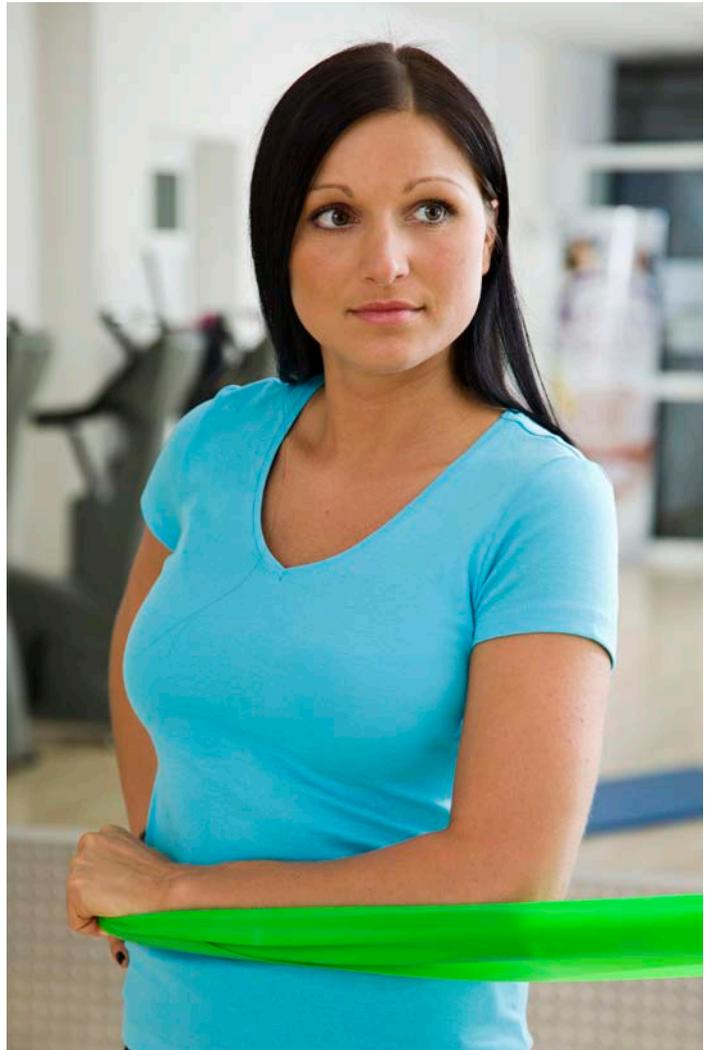


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# *Get Moving!* PLUS



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 **Arthritis**  
NEW SOUTH WALES

# Get Moving! PLUS

## Disclaimer

*The content in this booklet contains general information and advice. Every effort has been made to ensure that the information is accurate and reliable. The content is not a substitute for individual treatment advice of your doctor or health care professional. Always consult with your doctor or health care professional to obtain individual medical, treatment or management advice.*

*Kat has demonstrated only a few repetitions (reps) of each exercise. Start with the number of reps that you are comfortable with and slowly increase over time. Additionally, Kat has demonstrated some exercises from various angles for the purpose of illustrating technique only. You do not need to change your position mid-way through a set as Kat has done.*

*For your safety, it is advised that you READ and understand the accompanying exercise information sheet before participating in the exercises shown, and seek advice if needed.*

## Get Moving! PLUS

*Get Moving! PLUS* is not an exercise library for 'fitness' purposes *per se*, instead, it's an exercise library dedicated to promoting and improving the mobility and strength of joints and muscles that are affected by arthritis and other musculoskeletal conditions. Many of the mobility exercises included are low risk of injury and are easy to perform, though some are a little complex. For example, some require a resistance band, towel or other equipment, other exercises are self-assisted (using your hands to create force or a block, or to promote a specific direction of movement), while some require a certain range of motion (ROM), balance and/or coordination ability.

Unlike the *Get Moving!* Series, there are no 'fitness' profiling levels, which means that anyone at any age can perform the exercises given their circumstance and ability. These exercises are not to get you 'fit' but to get your joint 'fit' in a specific context, ie. pre and/or post rehabilitation settings, severe arthritis and/or pain. Exercises are grouped by joint and mobility attribute with a range of regressed and progressed exercises that can be used for a variety of purposes.

Please note: we highly recommend that the use of this resource is a collaborative one, ie. you work with your allied healthcare professional for exercise recommendation and assistance.

### Why was it created?

*Get Moving! PLUS* was created out of both demand from consumers wanting exercises for specific joints and the need for freely available, high quality, joint specific mobility exercises. *Get Moving! PLUS* may be used to complement treatment from a physiotherapist, exercise physiologist or myotherapist for either prehabilitation or rehabilitation from a joint replacement (or other) surgery, chronic pain and/or restricted movement in the context of arthritis.

## Get Moving! PLUS in focus

### Key focus 1: Mobility

Broadly speaking, mobility is an umbrella term used to describe the act of stretching, moving and strengthening a variety of tissues that surround the joint and the joint itself. Mobility is an indication of how well and efficiently we move. Flexibility, strength, coordination, and body awareness are all attributes of mobility. Thus, mobility of a joint can be promoted a number of different ways, eg. by 'traditional' stretches (active static and dynamic stretches or movements), passive stretches or mobilisations (where a musculoskeletal therapist does the movement for you), balance and strengthening exercises. In this booklet, 'mobility' indicates the exercises targeted at mobilising the joint.

### Benefits of mobility

Regularly performing and practicing mobility attributes is key to maintaining and promoting the health of joints, regardless of their condition. In particular, mobility exercises are significant for those with arthritic conditions (especially if they have loss of motion), those who may be waiting for a joint replacement (or anything similar), and those who have undergone a joint replacement or some other kind orthopaedic surgery to treat arthritis or other musculoskeletal condition. Movement at this point is critical; engaging in exercise post-surgery can predict the outcome of quality and quantity of joint ROM in the following ways:

- facilitate range of motion and technique
- help improve and maintain joint health and function
- can be used as a warm-up routine or an active recovery exercise
- may help reduce pain and feelings of stiffness or discomfort
- potentially reduce future injury.

## Key focus 2: Rehabilitation

When you have knee or hip replacement surgery, your doctor will suggest you do physical ‘rehab’ afterward. Once at home, you will likely see a physiotherapist regularly to receive rehab treatment as well as do exercises on your own. Your home exercise program will include activities to help reduce swelling and increase the ROM and strength in the muscles around your new joint. This will help you move more easily and get back to your normal activities more quickly. *Get Moving!* PLUS includes exercises that can be used in this capacity. We highly recommend you ask your physiotherapist to help choose exercises appropriate to your individual circumstance and stage of post-surgery rehab.

### Benefits of rehab

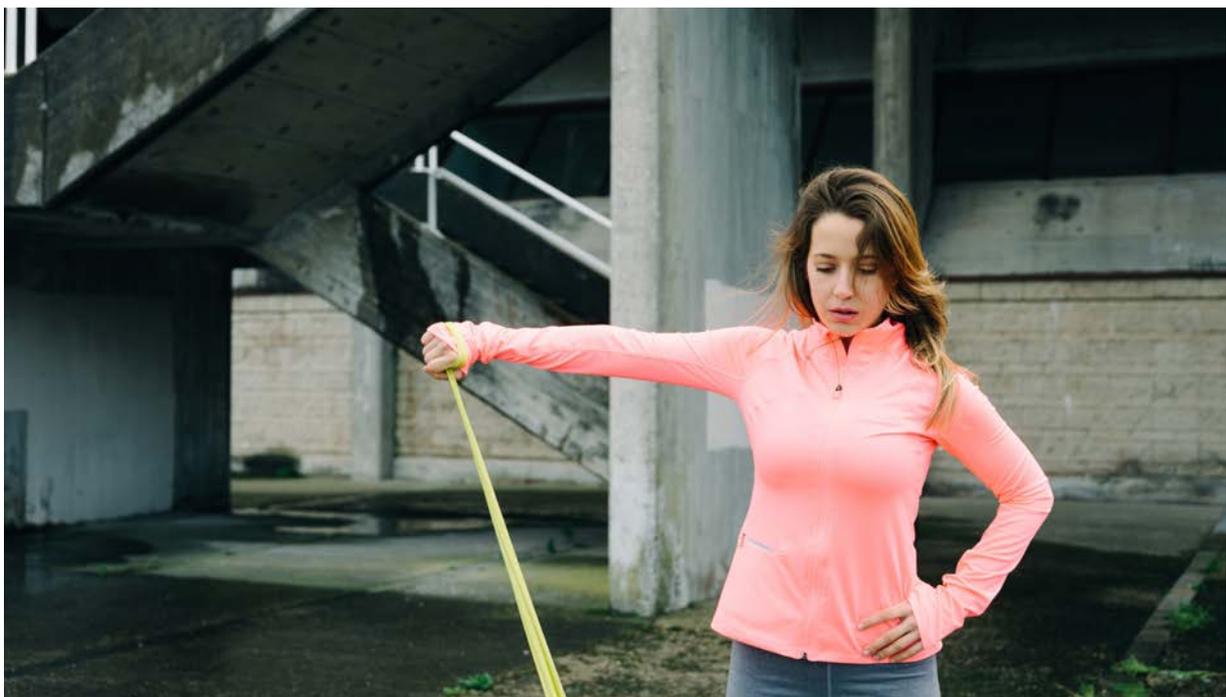
- restores normal movement in your joint
- builds up strength in the joint and surrounding muscles
- helps to ease pain and swelling
- lets you get back to your normal activities
- helps with circulation, particularly right after surgery, so you don't have problems with blood clots.

### Rehabilitation once you get home

You should aim to exercise and/or be physically active for 20–30 minutes, two or three times every day, or as much as your doctor/healthcare professional suggests. Walking may help. Start with 5 minutes and work up to 20–30 minutes, several times a day. Whether you work with a therapist or on your own, stay active for your overall health.

### Pre-operative rehabilitation

Pre-operative rehabilitation is exercise-based intervention prescribed before undergoing surgery. It is also known as prehabilitation or prehab. Prehab may help you to recover more quickly from the surgery, have a positive effect on pain pre and post-surgery, and improve post-operative function. This could potentially result in a faster return to work. It is often used before hip and knee joint replacements and can be performed independently or under physiotherapy supervision. A pre-operative exercise program should consist of both strength/resistance training and cardiovascular (cardio) components. The *Get Moving!* PLUS series includes exercises that can be used in a prehab context, although, if you require more challenging exercises then check out the *Get Moving!* exercise library.



## Tips on how to perform mobility exercises

### Pain

1. When rehabilitating from a recent surgery (total hip or knee replacement, anterior cruciate ligament replacement, shoulder reconstruction, other joint/tissue replacement or arthroscopy), injury or you have arthritis (non-inflammatory and inflammatory), pain and discomfort in or around a joint is common, especially during movement and exercise. You can still exercise! You can expect to feel pain, however, when moving through an exercise, slow down or stop at the point of initial pain or discomfort, unless told otherwise. The pain will likely reduce with the number of repetitions performed and/or when you move out of a certain position adopted to perform an exercise. Pain will also reduce over time as you heal.
2. You don't need to be afraid of the pain, especially since you should expect it. Experiencing pain is never pleasant but, in most cases, you don't need to worry that you are doing further damage to your said condition. Pain is normal in this context, however, it should really only last about 24–48 hours post exercise. If you experience severe pain that lasts longer than 48 hours and your condition changes and/or worsens, eg. fever and inflammation, then seek medical attention.
3. If an angle, oscillation or arc/range of movement causes extreme pain or discomfort, regress the movement, reduce the range or change the angle slightly.
4. Use a visual analogue scale (VAS) to measure and monitor your pain. By rating your pain on a scale from 1 (nothing at all) to 10 (extreme pain), you can monitor your pain experience so that it doesn't reach above a 7 or 8 when exercising, or otherwise advised by your healthcare professional. See the Strength exercises section below for further details.

### Speed and other performance tips

1. Try avoiding moving too quickly with your in and out movements. Gently and with control, move in and out of a movement or a stretch so it feels good for you.
2. Keep a normal steady breath throughout the exercises. Try not to hold your breath excessively throughout the exercises.

### How the exercise should feel and exercise parameters

#### Stretches

1. The objective is to increase range of motion by targeting the soft tissue surrounding the affected joint.
2. A stretch shouldn't hurt or be painful *per se*, however, a little discomfort is ok. You need to stress the joint and surrounding tissues a little to ensure you illicit an adaptive response.
3. *Hold a stretch for 15–30sec and perform 3–5 times*, or otherwise prescribed. When you first start out, you may find you can only hold a stretch for 5 seconds before you need to release it. That's ok. Slowly and progressively build the time you can stay in one position. Likewise for the range of a stretch, that is, slowly and progressively move further into the stretch when it's comfortable for you to do so.
4. Stretches can be performed frequently. Every day is safe or as needed. In fact, you may be told to stretch many times per day, every day of the week depending on your situation.

#### Strength exercises

1. The objective is to increase muscular strength and coordination.
2. Strength exercises (isometric and isotonic exercises, body weight and weighted) must be challenging to illicit muscle adaptation. However, timing is key. Strength needs to be built progressively and in this context, when your joint (and related tissues) are ready. Your physiotherapist, or other healthcare professional, will give you the green light when it's ok to start lifting heavier weights.
3. When you engage in strength training, you may find your muscles feeling fatigued and may struggle a little to finish your reps/sets. You may even find your breathing and heart rate increases, and/or you may experience discomfort or slight pain. These are good signs that the weight you are using is challenging, that is, challenging enough to achieve the benefits of strength training.
4. Using a Visual Analogue Scale (VAS) can be helpful to monitor discomfort/pain felt when exercising. Very briefly, a VAS score of 1–2 will feel very easy, no pain or discomfort. On the other hand, a VAS score of 9 or 10 may be extreme pain where you cannot go on or perform the movement – it's too much that you have to stop. Generally, you want to keep your VAS score around 6-8. You want to feel discomfort or a little pain, as if the exercise is 'doing' something; as if you're working the muscles.

5. When performing a strength exercise, eg. squat or hamstring curl, try performing *2–3 sets of 10–15 reps or as otherwise prescribed*. Initially, you may find you can only perform one set or only 5 repetitions and that's ok. Slowly and progressively build the number of sets and reps.
6. For exercises where the position is held still while under tension, try performing *2–3 sets of 5sec holds, then 10sec, 20sec, 30sec* and so on as you progressively increase time held and/or increase the set range, or as prescribed.
7. Depending on context, strength exercises should be performed at least 2–3 days per week. Unlike stretches or mobility exercises, it's important to have at least one full day rest between strength sessions.

## Mobility/range of motion

1. The objective is to increase joint range of movement by targeting the joint itself.
2. Similar to stretching exercises, mobility exercises shouldn't cause excessive pain but can be uncomfortable, and that's ok. You need to stress the joint and surrounding tissues a little to ensure you illicit an adaptive response.
3. Try performing *2–3 sets of 10–15 reps or as otherwise prescribed*.
4. As compared to strength training, rest is less important with mobility exercises and so can be performed every day, multiple times if needed.

## Balance exercises

1. The objective is to improve movement, control and proprioception, which is awareness of the position and movement of the body.
2. Like strength exercises, balance exercises need to be challenging to illicit adaption.
3. You don't need to always perform specific balance exercises to gain benefits. Depending on your situation, standing from a seated position, walking up and down stairs, squatting or lunges all require balance ability
4. You can hold certain positions for time or perform *2–3 sets of 10–15 reps or as otherwise prescribed*. To make any exercise challenging, close your eyes. Your healthcare professional may give you other ideas to help make balance exercises harder.
5. It's ok if your joint, eg. ankle joint, wobbles a little when performing a balance exercise (or any other exercise). That's a good sign your ankle is working hard to stabilise you. If, however, your whole body wobbles and you feel like you're going to fall, ensure you have something stable to hold on to and/or reduce the complexity of the task.
6. For safety reasons, ensure there is a stable prop, bench or wall nearby to use for support.
7. Rest is less important and so, like mobility/range of motion exercises, balance exercises can be performed every day if needed.

## Important

1. Your doctor/surgeon or physiotherapist may not want you rotating or moving a recently reconstruction joint in a certain direction or degree and with force/resistance. If you are unsure about what mobility exercises to do and how to perform them safely, please do not attempt the included exercises and ask for professional guidance first.
2. The guidelines provided here are conservative so they can be generalised for a variety of conditions/contexts. Please clarify with your physiotherapist or exercise physiologist about time, sets and repetition (rep) parameters for any and/or exercises in the Get Moving! PLUS exercise library.

### TERMINOLOGY

- Supine: position whereby you are lying on your spine ie. face up
- Prone: position whereby you are lying on your stomach ie. face down
- Isometric: strength exercises where your muscles contract while you hold a still position
- Isotonic: strength exercises where your muscles are contracting – shortening and lengthening
- Repetitions (reps): a rep is the number of times you perform a specific exercise
- Sets: a set is the number of cycles of reps that you complete, eg. you may complete 10 reps of bicep curls (on each arm) and repeat that rep range 3 times (sets).

## Upper extremity

### Joint: Shoulder

These exercises are focused on shoulder arthritis, to help improve mobility and strength. Everyone's symptoms and impairments will and can be unique, and there may be other exercises that are more appropriate.

Some exercises can be used for early to mid-stage shoulder rehab or for those with severe shoulder arthritis, pain and/or reduced muscle tone and strength. Talk to your physiotherapist or exercise physiologist for guidance of which exercises may be best suited to you or for more challenging and advanced options.

#### General exercise parameters

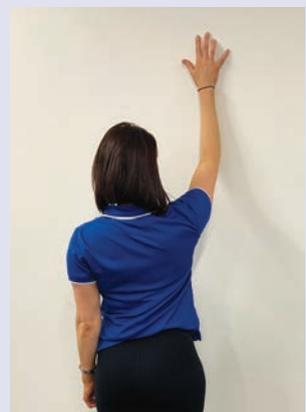
As these are general guidelines, please consult with your allied healthcare professional for individual prescription.

- When performing a mobility exercise, try performing *2–3 sets of 10–15 reps or as otherwise prescribed*. Initially, you may find you can only perform one set or only 5 repetitions and that's ok. Slowly and progressively build the number of sets and reps.
- For exercises where the position is held still, (a stretch or strength exercise) try performing 2–3 sets of 5sec holds, then 10sec, 20sec, 30sec and so on as you progressively increase time held and/or increase the set range, or as prescribed.
- When moving in and out of joint range, do so with control and with equal speed. Build up to perform *2–3 sets of 10–15 reps or as otherwise prescribed*.
- Keep a normal steady breath throughout the exercises. Try not to hold your breath excessively while exercising.

Your doctor/surgeon or physiotherapist may not want you rotating or moving a recently reconstructed joint in a certain direction or degree and with force/resistance. If you're unsure about what mobility exercises to do and how to perform them safely, please don't attempt the included exercises and ask for professional guidance first.

## Wall walks

1. Stand next to a wall with target arm closest to wall
2. Use fingers to 'crawl' up the wall or door frame as far as possible
3. Slide arm back down and repeat



## Pendulum



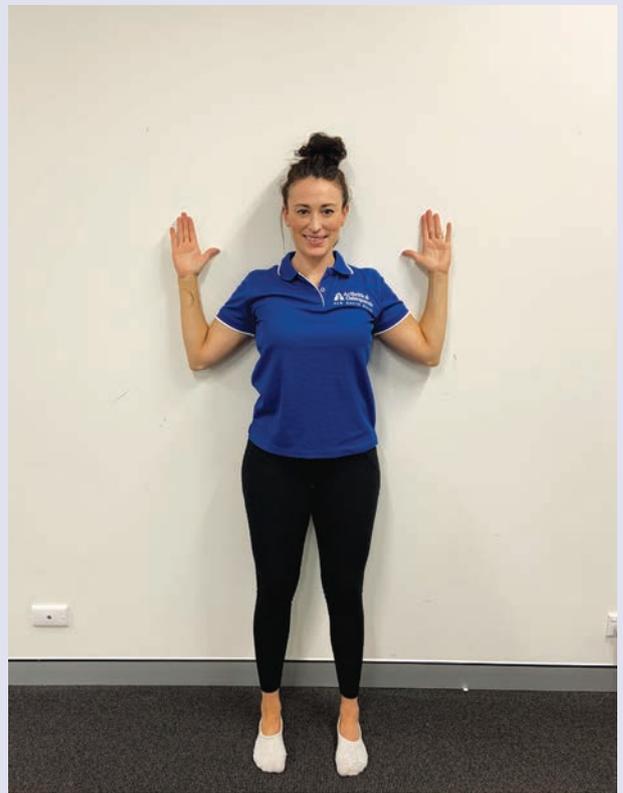
1. Bend over at the waist, letting the affected arm hang perpendicular to the ground.
2. Using the weight of the arm and gravity, sway your body back and forth to generate small circles at the target shoulder.
3. Use this technique to move your arm in clockwise and counter-clockwise circles, forwards and backwards, and side to side.
4. Optional to add weights.



## Wall angels



1. Stand with your back against the wall
2. Bend knees slightly.
3. Try to flatten low back on wall to avoid excessive arching.
4. With palms facing forward, raise your arms by your side, elbows bent
5. Your elbows and back of hands are against the wall.
6. Slide your arms up the wall until you feel some tension.
7. Slowly lower arms by bending elbows, keeping them touching/close to the wall.



## Foam roller wall slide

1. Stand facing the wall.
2. Pinky finger facing the wall.
3. Lean forearms on roller and roll up and down the wall.
4. As you roll up and down, try pushing the wall away with your elbows. This helps to engage the Serratus Anterior muscle and strengthen shoulder movements.



# Shoulder mobility

## LYING SUPINE EXTENSION WITH DOWEL, OR WEIGHTED



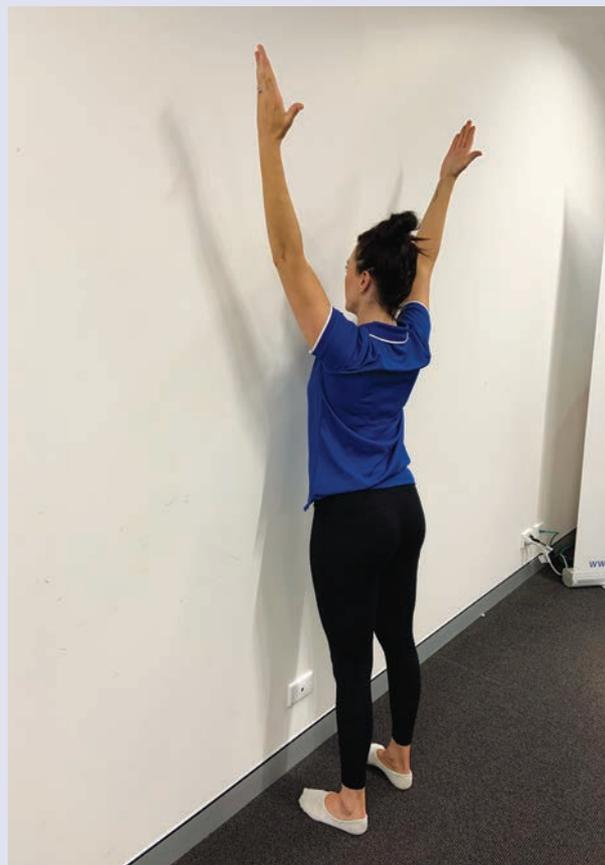
1. Lie supine on a bench or the floor.
2. Hold a dowel/rod/taut towel in your hands at shoulder width apart; rest on stomach or thighs.
3. Lift your arms straight above you. Keeping them straight, in a controlled movement, take them over your head as far as you can. Return and repeat.
4. You can progress this exercise by holding a weight, eg. barbell, dumbbell or kettlebell.

## Shoulder mobility



### V WALL SLIDE WITH LIFT OFF

1. Stand facing the wall.
2. Set yourself up with your elbows touching the wall and forearms resting on the wall vertically.
3. Slide the pinky side of your hand up the wall to make a 'V' at the top.
4. Let your shoulder blades move up and around your ribcage by pushing your armpit up and forward toward the wall.
5. Lift off at the end and hold for 1–5 seconds.
6. Reach your fingers as high as you can toward the ceiling as you lift off.

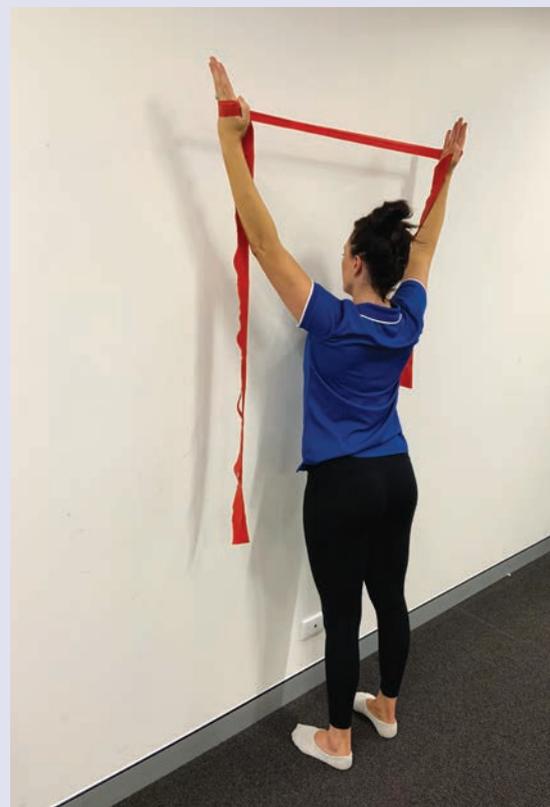


# Shoulder mobility/strength



## V WALL SLIDE WITH BAND

1. Repeat V Wall slide above (page 11) using a band.
2. Wrap the band around your hands.
3. Create resistance with the band and slide your hands up the wall without your hands pulling in or thumbs rotating inward.



# Prone scapular

## IYTWO FORMATION: I

1. Lie in prone position, head slightly lifted and neutral (looking down in front of you), arms and legs fully extended.
2. Lift arms slightly off the floor to make an 'I' with your body/arms. Palms facing inward.
3. Gently pull your shoulder blades together and down (retract).

**Focus on lifting through/with your shoulders and not the lower back although some low back extension (arching) is acceptable. Hold position for 5-10 seconds then relax and return to your starting position. Perform 2-4 repetitions.**



# Prone scapular

## IYTWO FORMATION: Y

1. Lie in prone position, head slightly lifted and neutral (looking down in front of you), arms and legs fully extended.
2. Lift arms slightly off the floor to make an 'Y' formation. Palms facing inward.
3. Gently pull your shoulder blades together and down (retract).

**Focus on lifting through/with your shoulders and not the lower back although some low back extension (arching) is acceptable. Hold position for 5–10 seconds then relax and return to your starting position. Perform 2–4 repetitions.**



# Prone scapular

## IYTWO FORMATION: T

1. Lie in prone position, head slightly lifted and neutral (looking down in front of you), arms and legs fully extended.
2. Lift arms slightly off the floor to make an 'T' formation. Palms facing inward.
3. Gently pull your shoulder blades together and down (retract).

**Focus on lifting through/with your shoulders and not the lower back although some low back extension (arching) is acceptable. Hold position for 5–10 seconds then relax and return to your starting position. Perform 2–4 repetitions.**



# Prone scapular

## IYTWO FORMATION: W

1. Lie in prone position, head slightly lifted and neutral (looking down in front of you), arms and legs fully extended.
2. Lift arms slightly off the floor, bending your elbows and dropping them to a 45-degree angle to the sides of your moving to a 'W' formation. Palms facing inward.
3. Gently pull your shoulder blades together and down (retract).

**Focus on lifting through/with your shoulders and not the lower back although some low back extension (arching) is acceptable. Hold position for 5–10 seconds then relax and return to your starting position. Perform 2–4 repetitions.**



# Prone scapular

## IYTWO FORMATION: O

1. Lie in prone position, head slightly lifted and neutral (looking down in front of you), arms and legs fully extended.
2. Elevate your shoulders while rotation both arms as if reaching behind to scratch your back. Overlap your hands in the small of your back into an 'O' formation.

**Focus on lifting through/with your shoulders and not the lower back although some low back extension (arching) is acceptable. Hold position for 5–10 seconds then relax and return to your starting position. Perform 2–4 repetitions.**



## Isometric exercises



*Isometric flexion*



*Isometric extension*

### FLEXION/EXTENSION

1. Arms by your side
2. Lift your arm/s directly in front of or behind you to a comfortable height/position.
3. Hold for 1–5 seconds against gravity.
4. Return to side and repeat.

OR

1. Lift arm/s to a comfortable height.
2. Create muscle tension by pushing against an immovable object at this position.
3. Hold for 1–5 seconds and release
4. Return to side and repeat.

# Isometric exercises

## INTERNAL/EXTERNAL ROTATION

1. Arms by your sides.
2. Bend elbow to 90 degrees.
3. Keep upper arm still against your body.
4. Create muscle tension by pushing your lower arm against an immovable object at this position.
5. Hold for 1–5 seconds.
6. Release and repeat.



*External rotation*



*Internal rotation*

## Isotonic exercises

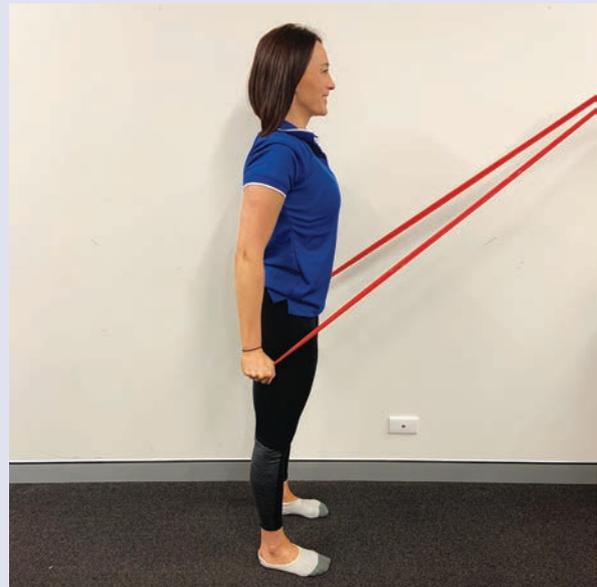
### RESISTANCE BAND EXTENSION: ROW

#### SEATED OR STANDING TALL

1. Loop band around secure object
2. Hold band in either hand
3. Pull band towards waistline while pulling shoulders together
4. Release arm position slowly. Repeat



### RESISTANCE BAND EXTENSION: STRAIGHT ARM



# Isotonic exercises

## RESISTANCE BAND FLEXION: STRAIGHT ARM

1. Loop band around secure object.
2. Hold band in either hand.
3. With straight arms by your side, lift and pull the band forwards.
4. You can also use handheld weights instead, eg. dumbbells, and perform the same flexion movement.



## Isotonic exercises

### RESISTANCE BAND: ABDUCTION/ADDUCTION

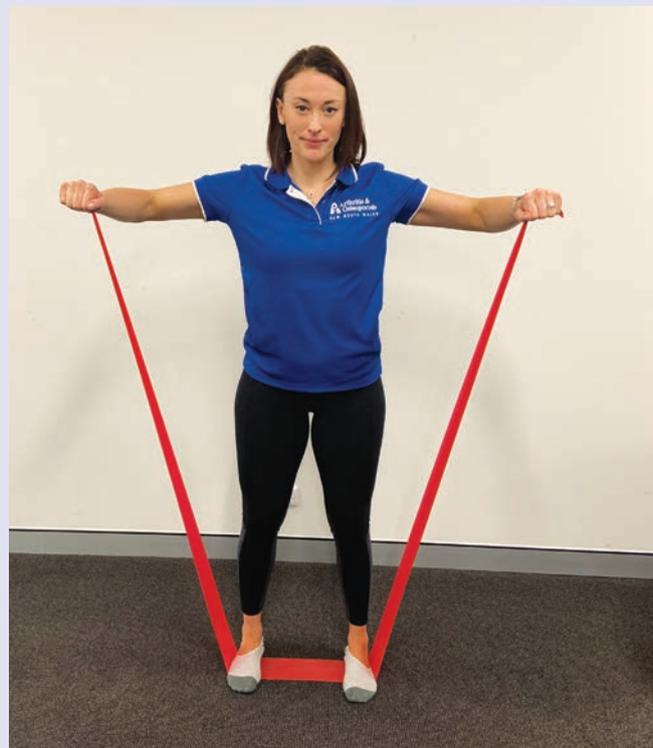


#### ABDUCTION

1. Have band secured under your feet or to a sturdy object.
2. With single arm or double arms at the same time, bend at the elbow 90 degrees.
3. Keeping elbows bent, raise your arm/s away from your body, bringing your upper arms approximately parallel to the floor
4. Lower and repeat.

#### ADDUCTION

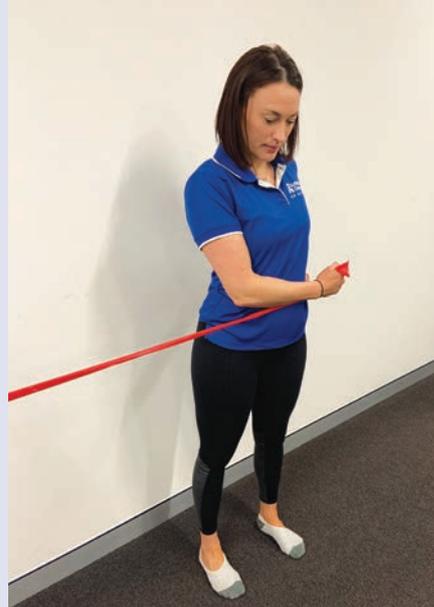
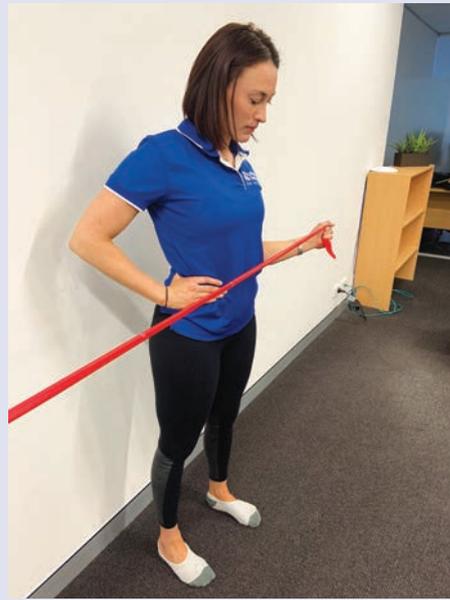
1. Have the band secured to a sturdy object in a position that will create resistance against your arm as you bring it towards your body
2. With single arm, bend at the elbow 90 degrees.
3. Keeping elbow bent, bring your arm towards your body.
4. Return and repeat.



## Isotonic exercises

### RESISTANCE BAND: INTERNAL/EXTERNAL ROTATION

1. Secure band to sturdy object, at waist height.
2. Arm by your side, bend elbow at 90 degrees.
3. While holding the band, keep elbow bent and arm by your side, move lower arm towards your belly button or out away from your body.
4. Move/adjust position to ensure band tension is placed correctly on movement.
5. Return and repeat.



# Posterior Rotator Cuff

## SLEEPER STRETCH

1. Lie on your affected side with your shoulder stacked underneath you.
2. Rest your bottom arm out in front of you.
3. Bend your arm at the elbow to 90 degrees so your fingers are pointed toward the ceiling.
4. Use your other hand to push your forearm down toward the floor.
5. Press as far down as you comfortably can.



# Posterior Rotator Cuff

## ACROSS BODY STRETCH

1. Standing or seated, bring one arm across your chest.
2. Your other arm bends at the elbow to cradle the arm above.
3. Your bent arm draws the straight arm towards the body until desired shoulder stretch/tension is felt (side/back of shoulder or straight arm).



## Pectoralis Major

### DOORWAY STRETCH

1. Stand in an open doorway.
2. Raise one or both arms up to the side, bent at a 90 degree angle with the palms forward.
3. Rest your palm/s on the door frame.
4. Slowly step forward with one foot.
5. Feel the stretch in your shoulders and chest.



# Tricep Brachii stretch

1. Stand in an open doorway.
2. Raise one or both arms up to the side, bent at a 90 degree angle with the palms forward.
3. Rest your palm/s on the door frame.
4. Slowly step forward with one foot.
5. Feel the stretch in your shoulders and chest.



# Bicep Brachii stretch

1. With straight arms by your side, make a 'thumbs down' sign with your hands.
2. Keep this thumbs down position and raise your arms as high as you can behind your back.
3. You should feel a stretch along the front side of your upper arm.

