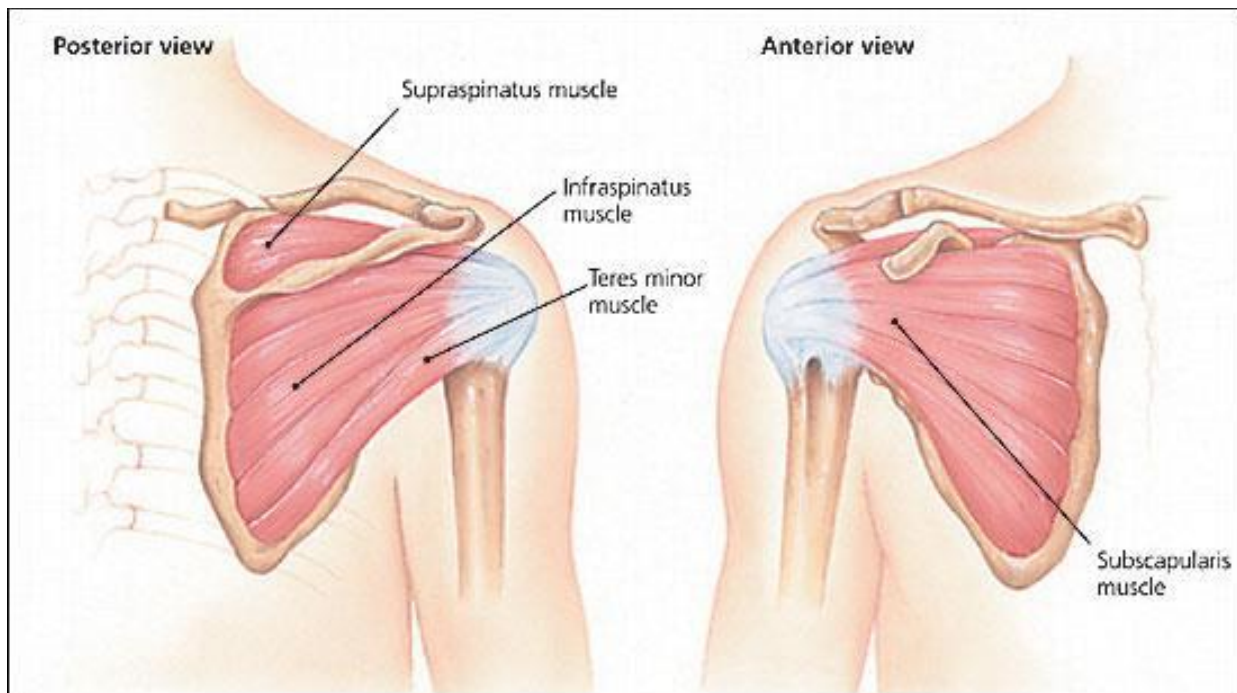


Rotator Cuff-Related Shoulder Pain (RCRSP)

The rotator cuff is a series of 4 muscles which surround the shoulder blade (scapula) and attach to the top of the arm bone (humerus) via muscle tendons (see Figure.1).

Supraspinatus, infraspinatus and teres minor are located on the back of the scapula, and subscapularis is located on the front. As the name suggests, they enable rotation of the shoulder. They are also responsible for providing dynamic stability and efficient movement of the main joint of the shoulder (glenohumeral joint).



What is Rotator Cuff-Related Shoulder Pain?

RCRSP is a very common form of shoulder pain. Typically the pain is located at the top of the shoulder and into the upper arm. The pain affects movement, strength and normal function of the shoulder. Pain is typically experienced whilst raising your arm in the air or rotating the shoulder. You may have full shoulder movement but it can feel weak and painful. It can also affect your ability to sleep as it is painful to roll onto the shoulder.

RCRSP can occur in a number of ways including changes in activity (most common), as a result of trauma, or it can come on gradually over time.

The term RCRSP is used to describe a collection of conditions that can cause this type of pain including; subacromial (impingement) pain syndrome, rotator cuff tendinopathy, rotator cuff tears, and subacromial bursitis. RCRSP does not include frozen shoulder, which causes major stiffness and restriction of movement in the shoulder. However, you can develop stiffness later in the shoulder if you have had RCRSP for several months.

RCRSP does respond well to structured exercise programs involving strengthening the rotator cuff and surrounding muscles.

What Else Plays a Role in RCRSP?

The following factors all contribute to the health of the rotator cuff tendons and their ability to tolerate the forces required for daily arm function.

- Diabetes.
- Hypothyroidism (under active thyroid).
- Smoking.
- Obesity.
- Physical inactivity.
- High levels of fatty and processed foods in the diet.
- Sudden change in activity levels.

How Can I Improve my Shoulder Pain

The management of RCRSP is based on restoring your shoulder muscles ability to tolerate the forces required for daily activities. This may be achieved by the following:

- Activity modification.
- Ice/heat.
- Graded strength and conditioning exercise program (*see below for examples*).
- Pain medication (paracetamol/ibuprofen or consult your GP for stronger pain relief).
- Addressing lifestyle factors such as stress, sleep, physical inactivity, diet, smoking cessation.

When Will my Shoulder Pain Get Better?

Each individual's shoulder pain is different and full recovery can depend on a number of factors that have been previously mentioned. Most people will see some improvement in their shoulder pain and function following 6-12 weeks of adhering to a progressive exercise program.

What are the Next Steps if my Pain Persists Despite Conservative Management?

Corticosteroid Injection

On some occasions people may benefit from a corticosteroid injection to help to reduce the pain. They are usually considered if there is minimal improvement by 3months and the pain impacts on sleep. The corticosteroid is injected with local anaesthetic underneath the roof


of the shoulder blade called the 'sub-acromial space'. Corticosteroids are strong anti-inflammatories and reducing inflammation can help reduce pain. However, the steroid can also reduce rotator cuff tendon health, which can contribute to potential future episodes of shoulder pain.

Surgery

If the onset of shoulder pain is traumatic (after an injury) and there is a sudden loss of shoulder function, imaging and surgery may be considered in the early stages. In non-traumatic shoulder pain, surgery is only recommended for those with significant pain and loss of function, despite adherence to conservative treatment over at least 6 months.

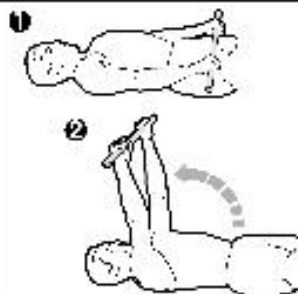


RCSR REHAB PROGRAM EXAMPLE



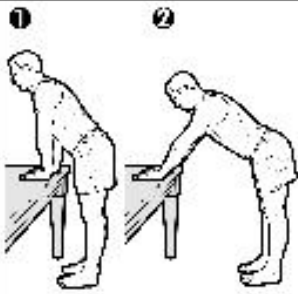
ACTIVE-ASSISTED SHOULDER ABDUCTION
Standing while holding a pole (e.g. cane / broom handle) in both hands with your arms at sides, slowly raise your affected arm out to the side. Raise your arm until you feel a stretch, assisting the movement with your unaffected arm. Hold for 5 seconds then slowly lower and repeat.

SETS & REPS: 3 x 15 FREQUENCY: 2-3 x day



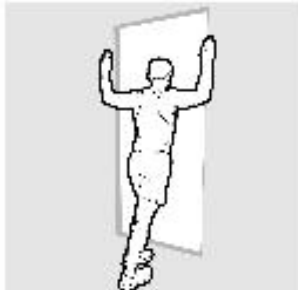
ACTIVE-ASSISTED SHOULDER FLEXION
Lying on your back holding a pole in both hands (1), slowly raise the pole up until your arms are vertical (2). Lead the movement with your unaffected arm. Slowly lower and repeat.

SETS & REPS: 3 x 15-20 FREQUENCY: 2-3 x day




ACTIVE-ASSISTED SHOULDER FLEXION
Stand with your hands on a table (1). Slowly walk your body back, bending at your waist, to flex your shoulder (2). Slowly return to the start position and repeat.

SETS & REPS: 10-15 reps FREQUENCY: 3 x day



BILATERAL PECTORAL STRETCH
With your shoulders and elbows bent to 90° and forearms against a door frame, slowly lean forwards until you feel a stretch in your chest. Hold.

SETS & REPS: 30sec hold FREQUENCY: 2-3 x day



DUMB-BELL SHOULDER FLEXION
Hold a dumb-bell or weight on your shoulder (palm upwards) (1). Lift weight up towards the ceiling, straightening your elbow (2). Slowly bend your elbow, lowering to start position. Repeat.

SETS & REPS: 3-5 x 6-12 FREQUENCY: 3-4 x week



RCSRSP REHAB PROGRAM EXAMPLE



SCAPTION: RESISTED

Stand on a length of resistance band and hold the other end at your side with your thumb facing up. Raise your arm, 30-40° forward from the plane of your body, while depressing your shoulder blade and gently pulling it in towards your spine. Ensure you do not shrug your shoulder during the movement. Slowly lower and repeat.

SETS & REPS: 3-5 x 6-12

FREQUENCY: 3-4 x per week

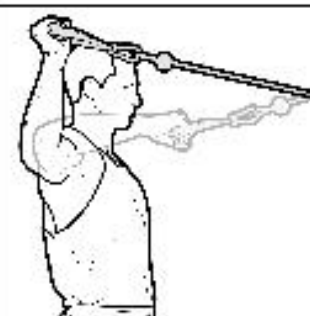


SCAPTION: WEIGHTED

Hold a light dumb-bell at your side with your thumb facing up. Raise your arm 30-40° forward from the plane of your body, while depressing your shoulder blade and gently pulling it in towards your spine. Ensure you do not shrug your shoulder during the movement. Slowly lower and repeat.

SETS & REPS: 3-5 x 6-12

FREQUENCY: 3-4x per week



CABLE EXTERNAL ROTATION (IN ABDUCTION)

Hold the cable with your arm at shoulder-height, your elbow bent to 90° and your forearm parallel to the floor. Keeping your shoulder blade in a 'neutral' position, rotate your forearm backwards as far as you can. Slowly return to the start position and repeat.

SETS & REPS: 3-5 x 6-12

FREQUENCY: 3-4 x week