



Practice
Plus
Group

Rotator cuff related shoulder pain

Shoulder impingement



Information for guided patient management

Provided by

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Rotator Cuff Related Shoulder Pain - (RCRSP)

Anatomy of the shoulder and how it works

The shoulder is a ball and socket joint. This is similar to the hip joint, however the shoulder is comparatively shallow, to allow for significantly more movement. This means that it relies on soft tissue (such as muscles, tendons and ligaments) to provide support and mobility and allow it to function. The bone making up the top part of the arm (humerus) forms the ball and the shallow socket is formed by the shoulder blade. Above the ball and socket joint is a ligament (coracoacromial ligament), and this forms an arch. The space between the shoulder joint and the arch is called the sub-acromial space. Within the sub-acromial space lies a bursa (a fluid lining which helps to reduce friction on tendons) and the tendon of the supraspinatus muscle (which is one of the four rotator cuff muscles).

What is RCRSP?

RCRSP describes shoulder pain and reduced arm function, usually when you try to reach overhead. It is a term that includes a range of conditions: rotator cuff tendinopathy, sub-acromial bursitis and degenerative or partial rotator cuff tears. This condition used to be called sub-acromial pain syndrome or impingement syndrome.

What are the types of rotator cuff injuries?

The rotator cuff is a group of 4 muscles that surround your shoulder and can often be a source of pain in RCRSP. There are different types of rotator cuff injuries:

1. Acute rotator cuff tear (due to a specific injury). Rotator cuff tendons can tear as a result of an injury to the shoulder after a fall or accident.
2. Degenerative rotator cuff tear (not due to a specific injury). Rotator cuff tendons can tear due to aging over time, without an injury. This happens naturally and is more common as people age.
3. Rotator cuff tendinopathy. The tendons can be a source of pain without having a tear. This is when a tendon becomes sensitive, often in response quick changes in activity.

How common is it and why does it happen?

This type of shoulder pain is one of the most common causes of shoulder pain and accounts for 44-65% of shoulder problems. Rotator cuff-related shoulder pain is generally considered to be an overuse injury often following an increase in how much work your shoulder is doing.

Age - RCRSP can occur at any time in your life, but is more common between the age of 40-64 years.

Load tolerance - Depending on what you usually do, you will have a level of activity that your shoulder is happy with (a load tolerance level). Excessive loading or varied and rapid increases in load can increase sensitivity in your shoulder, without causing physical injury or damage.

Weakness of shoulder muscles - Reduced strength in the muscles of your shoulder (including your rotator cuff) can make you more likely to develop pain when you do physical tasks.

Comorbidities (other health problems) - There is a link between diabetes, hypertension, raised cholesterol and RCRSP. Often symptoms can last longer in the presence of these conditions, particularly if they are poorly managed.

Occupation - Excessive overhead activity at work, such as when painting and decorating can increase the risk of RCRSP.

Physical activity - Being generally less active has been associated with RCRSP. Poor fitness and low levels of physical activity can affect your body's ability to cope with pain or daily physical tasks.

Lifestyle factors - Smoking increases the risk of developing over 50 serious health conditions including cancer, heart disease and stroke. It also seems to make RCRSP shoulder more likely. If you would like help to give up smoking, please discuss with your physiotherapist.

Emotional wellbeing (beliefs, anxiety and stress) - Your beliefs about your pain play an important role in helping you recover. For example, avoiding moving the shoulder because you think you might do more damage can actually make pain worse. Being reassured and having a positive, optimistic outlook can make a real difference to recovery.

It is normal when living with pain to notice changes in your mood. Your pain is a physical experience that can be affected by how you are feeling. Low mood, anxiety, stress and pain can often happen together. This makes it more difficult to manage your pain on a day-to-day basis.

What are the symptoms?

Pain on the outer aspect of the upper arm is a common symptom

Pain can follow a classic 'painful arc' pattern, where pain is primarily caused when the arm has been moved to shoulder level Pain can also be triggered normal activities:-

- Overhead or reaching movements
- Bringing your arm behind your back (washing and dressing)
- Lying on the affected side at night can be difficult

Symptoms may not always come on immediately with the movement and instead can cause the shoulder to ache later.

Conservative management of shoulder impingement

The majority of cases will respond to non-operative management, through identifying and changing the contributing factors, analgesia and physiotherapy. Only a small proportion require surgery and this is considered only once other conservative measures have failed.

- **Pain relief** – RCRP is self-limiting and can benefit from simple analgesia or anti-inflammatories (such as paracetamol or ibuprofen). Please speak to your GP or pharmacy for appropriate guidance on medication that is right for you.
- **Physiotherapy** – physiotherapy is an active process in which the therapist and patient work together to form an appropriate management plan. The aim of physiotherapy is to help identify any contributing factors and to reduce the load and stress on the inflamed structures (i.e the tendon or bursa) to aid healing.

Management strategies include:-

- **Education** – Understanding the condition is an important factor to be able to break the pain cycle and manage it effectively.
 - There may be certain day to day activities which aggravate the symptoms and the therapist can help you identify these. If the tendon or bursa continues to be aggravated on a day to day basis, it can create a barrier for the symptoms to respond to management.
- **Strength and conditioning of the muscles** – The aim of this is to improve the way in which the muscles work together and allow the shoulder to work the way it is designed to.
 - An exercise programme is developed based on what the therapist has found during the physical assessment. Exercise programmes focus on restoring range of movement, stretching, improving strength in specific muscle groups or to target posture.
 - Although there may be some discomfort, exercises should not be painful. The exercise may need to be adjusted slightly with the guidance of your therapist.
 - Management programmes can vary significantly and if one programme has not helped, the therapist will look to alter this to make it more effective.
- **Corticosteroid injections** – The aim of steroid injections is to reduce inflammation. This tends to be considered if simple analgesia and physiotherapy management has not been effective. It is important to continue with your physiotherapy management programme when advised after your injection. This is to optimise shoulder mechanics which may have caused the inflammation in the first place and achieve pain relief in the longer term.
- **How long will it take to get better?**

Healing is different for everyone and will depend on the severity of your symptoms. However, you should expect to notice improvements in pain and function after 12 weeks of following your rehabilitation programme. People with other health conditions, such as diabetes, might experience slower improvements.

Surgery

- Surgical management has not been found to be more clinically effective than conservative treatment and will only apply to a small percentage of cases.
- Its purpose is to widen the subacromial space by shaving any bone protrusions/spurs, which may be contributing to the pain.
- This is considered only when the patient has not responded to conservative management and does not provide any guarantee that the shoulder will be pain free.
- It is important to think about and discuss the benefits, risks, implications, and alternative options of any treatment (including having no treatment) before deciding which is most appropriate for you. You are encouraged to do this with any healthcare professional you see, including your physiotherapist

Example exercises

Severely Irritable – Stage 1:

1. Table top slides
2. Isometric external rotation

Stand with your upper arm close to your side, elbow at right angle and the back of your hand against a wall.
Push the back of your hand gently against the wall.
Hold up to 5 seconds

Moderately irritable – Stage 2:

1. Wall slides with towel
2. Wall press-ups

Stand facing a wall with your arms straight and hands on the wall.
Do push-ups against the wall keeping your body in a straight line.
Repeat times.

Exercise band row

Stand tall holding an exercise band with straight arms.
The band is attached in front of you and the slack is taken off the band.
Pull your elbows backwards and your shoulder blades in and down.
In a controlled manner let your arms straighten back to the starting position.

Mildly irritable – Stage 3:

1. Supported external rotation with no weight progress to a weight.
2. External rotation with band in lunge-kneel position.

