

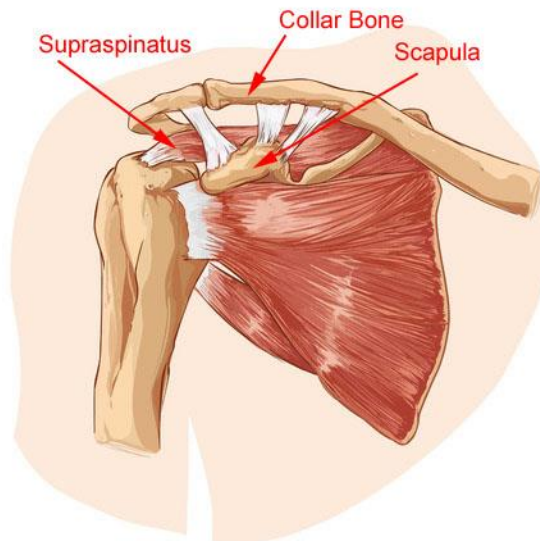
## Shoulder Pain – Rotator Cuff

February 2017 - Tricia Hayton, Registered Physiotherapist and Dr. Chris Woollam MD (Dip Sport Med)

Shoulder pain is the second most common complaint that physiotherapists treat, only out-ranked by low back pain. The complaints vary from pain with activity, to the inability to raise an arm to restlessness when sleeping on the affected side. Although a thorough assessment is needed to rule out other diagnosis, frequently the cause is injury to the rotator cuff tendons. But what is the rotator cuff and why is it so frequently damaged?

**What is Rotator Cuff and how did I get it?** The rotator cuff is a group of four muscles that sit on or under the shoulder blade (scapula). Unlike their name suggest, the main job of the rotator cuff is to provide stability to the shoulder by holding the ball at the top of the arm securely in the shallow socket of the scapula.

The most common muscle injured is the supraspinatus. It sits on the top third of the scapula (shoulder blade), above the bony ridge. As the tendon travels to the top of the arm bone, it passes through a tunnel created by collar bone's joint with the scapula (AC joint). With movement above the level of the shoulder, the tendon can get pinched and frayed leading to inflammation, pain, and weakness. Repetitive motion above the head increases the injury. Professions such as construction workers, painters and factory workers have an increased risk of supraspinatus tendon damage. Likewise, some sports can increase your risk. These sports have repetitive high loads above the shoulder such as volleyball and swimming.



Occasionally, the supraspinatus is damage by a fall on an outstretched hand. This often results in a partial or complete tear of the supraspinatus tendon caused by the powerful upwards thrust of the arm bone. If you fall, and lose the ability to lift your arm, it is critical to see your doctor quickly to determine the proper diagnosis.

**Why me?** The question remains, why do some workers and athletes get sore shoulders and others do not? Although there are many factors such as genetics or nutrition that play a roll, poor mechanics often determine the injury's severity.

**The challenge?** The good news is, mechanics of the shoulder can often be corrected. Lifting the arm above shoulder height requires proper movement of the upper back, scapula, AC joint and the true shoulder joint (where the arm meets the shoulder blade). If any of these factors are not working optimally, then there is an increased risk of tendon injury. Pain produced causes weakness which further changes the mechanics, which in turn further increases the risk of injury. It is easy to fall into a cycle that can be difficult to break.

**What treatments are available?** The first step in treatment is to provide an initial assessment, either by a physiotherapist or physician. Depending on the severity of the injury it may be prudent to order X-ray and diagnostic ultrasound to get a better view of the damage.

Depending on the severity of the injury, determined at the initial assessment, we would look at one or more of the following treatments.

1. In its simplest form we would look to repair the mechanics through mobilizations, stretching and proper exercise prescription breaking the cycle and allowing healing to begin. For long term relief, it is essential to address the movement quality of the shoulder as this is often the cause of the disability. Simple treatment of pain and inflammation will make it feel better, but the relief is often short term.
2. As a second step, medical control of the symptoms through non-steroidal anti-inflammatories or cortisone injection coupled with proper therapy can help restore function and get you back to the activities you love.
3. More significant tears or, indeed, complete tears may require more advanced management such as PRP injections or surgical repair. Surgery may involve repair of the tendon tear and/or a decompression of the space through which the tendon passes.

Ongoing pain in a shoulder should be assessed and managed by a professional. When symptoms are ignored, there can be permanent scarring and changes to the tendon making treatment less successful. Generally, if pain is present for more than a week, or if you start to lose any movement of the shoulder, seek medical advice.

At Physio Sport Med we have the physician and therapist expertise to provide a solid assessment and treatment plan to address your Rotator Cuff injury.