

GOAL POST

Rotator Cuff Tendonitis: PART 1

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Over a number of practices, a swimmer starts to notice increasing pain in his shoulder. It starts as a nagging pull that is present during 10-15 freestyle strokes. Over the course of three weeks and a number of practices his shoulder becomes quite painful. He starts to lose power in his stroke and he continues to post slower times during these swims.

A 16-year-old fastball outfielder has been experiencing increasing pain in her throwing shoulder that is worst when she starts to warm up and after a significant amount of throwing – especially during all the cut-off drills the team has been practicing over the last three weeks as part of their preparation for the Provincial Championship tournament. She is starting to have trouble reaching the infielders with her throw because her arm feels sore and weak.

Both of these athletes are experiencing symptoms that are common with rotator cuff tendonitis: pain and weakness that leads to poor athletic performance.

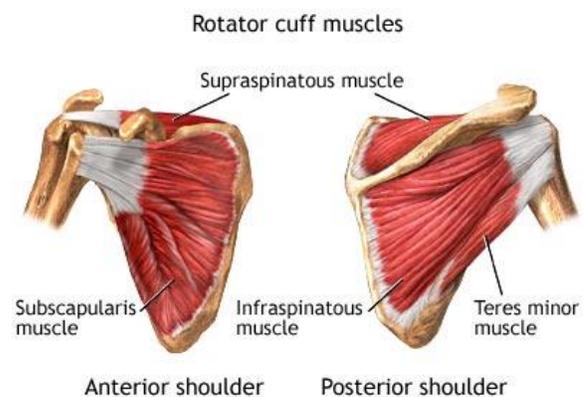
The Anatomy of the Rotator Cuff

The shoulder is a complex “ball and socket” joint with a very shallow socket (like a golf ball on a tee) deepened slightly by a ring of cartilage called a labrum. This design permits for the large range of motion at the shoulder, which makes it possible to throw a ball or perform a slapshot. However, excessive movement comes at a price. A shallow socket makes the joint naturally unstable.

This is where the rotator cuff (not cup!) muscles come in. The rotator cuff is a group of four small muscles that surround and stabilize the shoulder joint:

- Supraspinatus
- Infraspinatus
- Subscapularis
- Teres Minor

Essentially, they work to keep the arm bone (humerus) centred in the shoulder socket during active movement of the arm.



As sports-focused health care professionals, we often see cases of rotator cuff tendonitis. This condition affects the tendons that attach these rotator cuff muscles to bone – an overuse injury that causes pain, inflammation, decreased range of motion, altered function, and reduced participation in sports and activities.

Factors That Cause Rotator Cuff Tendonitis

When the rotator cuff muscles are not working properly to centre the humerus in the socket, because of weakness, tightness or improper mechanics, the stability of the shoulder can be decreased and cause pinching, rubbing and fatigue of the muscles and tendons which leads to injury (tendonitis) with repetitive stressful motions.

Other contributing factors to recurrent rotator cuff problems include shoulder ligament or labrum looseness (or laxity) and improper tracking and poor stability of the shoulder blade; as well as the activity itself and high forces generated through the shoulder (e.g., pitching at

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98mph). Bony abnormalities and/or posture of the shoulder can also cause the rotator cuff to be compressed or “impinged” against the bone above it, which causes more inflammation and pain.

While rotator cuff tears often occur from a specific incident (heavy or awkward lifting, a forceful throw, etc.) due to a high force going through the muscle and tendon beyond what it can withstand, tendonitis develops over time due to repetitive or prolonged activities placing strain on the rotator cuff. Rotator cuff tendonitis typically occurs due to repetitive lifting, pushing, pulling, use of the arm in front of or away from the body (e.g. housework) or overhead activities and are most common in older adults. In athletes, rotator cuff tears are commonly seen in throwing sports (such as cricket or baseball), swimming, racquet sports (such as tennis), weight lifting or paddling sports (such as rowing or kayaking).

Now that you know what rotator cuff tendonitis is, be sure to read **Part 2** of this article to learn more about the risk factors, treatment options, and prevention for this injury.

STAFF PROFILE

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Education

- > Education from Queen’s University.
- > Bachelor of Science in Life Science from Queen’s University.
- > Masters in Physiotherapy from Queen’s University.

Post Graduate

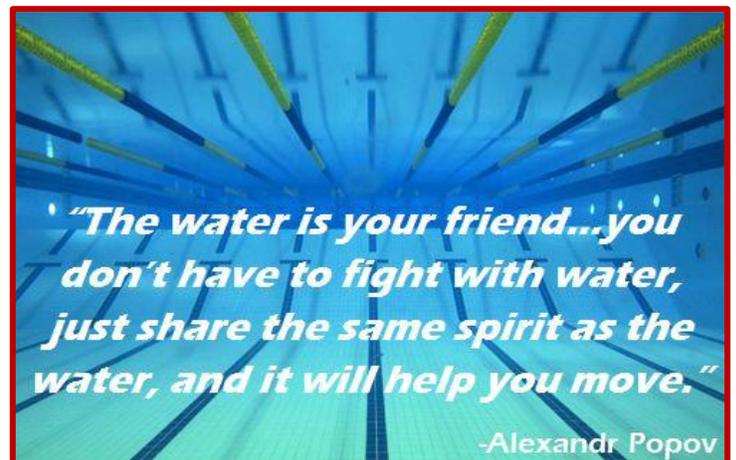
- > Orthopaedic division level three exams.
- > Level 1 acupuncture.
- > Focused education and retraining courses

Focused Interests and Skills

- > Manual Therapy
- > Core Stability Training
- > Rehabilitation following ACL reconstruction

Let’s Get ‘HUMERUS’

If you’re swimming in the lane next to me, the answer is yes, we are racing.



Tips & Tricks

Increasing Training means Increase in Resting

A good method to preventing sports and training related injuries is to ensure that the amount of rest you are getting is appropriate for the amount of training you are doing. When muscles become fatigued after a large amount of training they tend to be less able to protect the bones and tendons leaving them more susceptible to injuries. By sufficiently resting your muscles after training you will greatly reduce your risk of injury.

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