

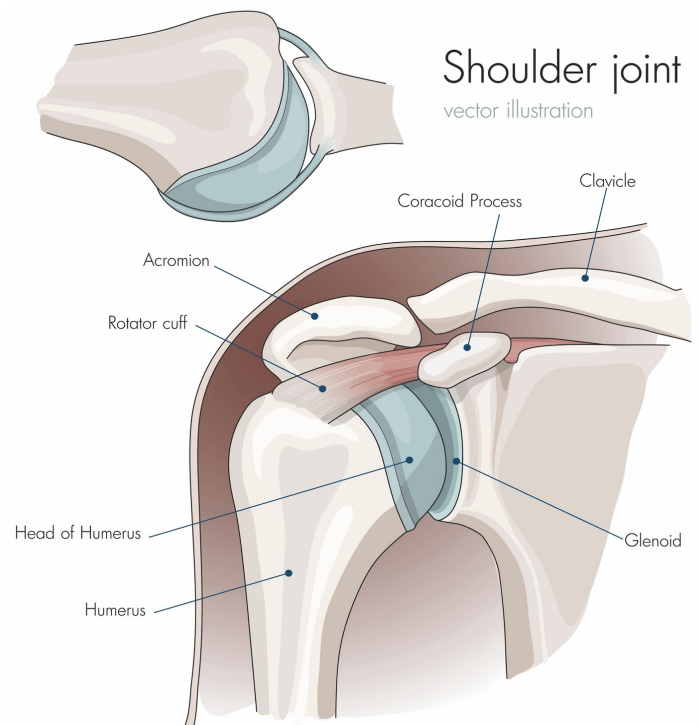
Shoulder Impingement Syndrome

One of the most common areas of complaints, injuries, and conditions that physiotherapists hear about from their patients is the shoulder. Your shoulder is made up of so many unique structures that it makes it the perfect target for injuries and conditions. More than 40% of these complaints are thought to originate from a condition known as shoulder impingement.¹

Before we can begin learning about what shoulder impingement actually is, we first need to establish some background information on the anatomy of the shoulder.

Anatomy

The group of four muscles and tendons that assist you in raising, lowering, and rotating your arm are known as the rotator cuff.¹ The rotator cuff forms a covering around the head of the upper arm bone and attaches it to the shoulder blade.² This is the structure that keeps your arm in its socket. The rotator cuff is found in a small space, the subacromial space, and sits in between your acromion (extension of the shoulder blade) and your humerus (upper arm bone).¹ Also found in that space between your acromion and rotator cuff is the subacromial bursa which is essentially a fluid-filled sac. The bursa allows the rotator cuff to glide smoothly when you move your shoulder.²

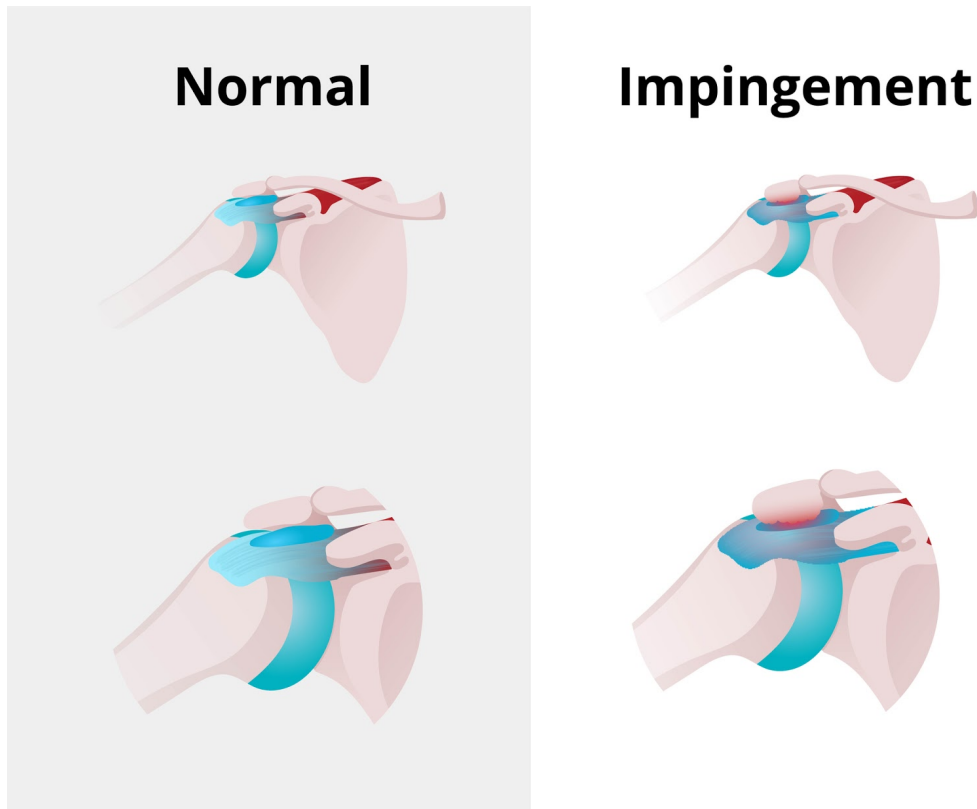


Now that we understand the necessary anatomy, we can move on to what a shoulder impingement is and why it occurs.

What is a shoulder impingement?

Essentially, a shoulder impingement is the continuous compression of the rotator cuff tendon.³ This compression occurs when your acromion rubs against, impinges on, or pinches your rotator cuff which leads to pain, irritation, and inflammation.¹ When you raise your shoulder, the space

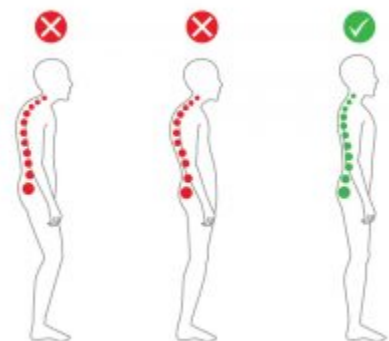
between the rotator cuff and the acromion narrows, which in turn increases pressure and the risk of impingement.^{1,2} Once the rotator cuff becomes irritated it begins to swell which helps to, once again, reduce the size of the subacromial space and leads to even more rubbing.



So what causes this condition?

The most common causes of shoulder impingement syndrome are:

- Overuse; individuals that are involved in sports, activities, and/or occupations that require repetitive overhead arm movements.
- Injury to the shoulder such as a shoulder dislocation.
- Poor posture; hunching or slumping of the shoulders can lead to the subacromial space becoming even narrower.⁴
- Bone spurs; another factor that helps to shrink the size of the subacromial space.⁴



- Curved or hooked acromion; people who have an irregular acromion usually have a narrower subacromial space than those with a flat acromion.⁴

Who is most at risk?

Risk factors for this condition include:

- Being an athlete, specifically one that is involved in swimming, tennis, baseball, or softball due to the constant overhead arm movements.^{5,6}
- Having an occupation that requires heavy lifting and many overhead arm movements like construction work, moving boxes, and painting.^{5,6}
- Having had a previous shoulder injury
- Age; this condition is seen most often in those over the age of 50.^{5,6}



What does a shoulder impingement feel like?

The most notable symptoms of this condition include:

- Minor but consistent pain^{1,2}
- Pain that extends from the front of your shoulder to the side of your arm^{1,2}
- Pain with lifting and reaching movements
- Tenderness in the front of the shoulder¹
- Pain at night^{1,3}
- Shoulder and arm weakness^{1,3}
- Pain when lying on your affected side^{1,3}



What is the diagnosis process like?

Your doctor will start the diagnosis process by discussing your symptoms and medical history with you. They will then perform a physical exam of your shoulder to assess your range of motion, strength, and pain. Your doctor will also make sure to look for any other issues with

your shoulder joint since the symptoms for shoulder impingement are very similar to other common shoulder conditions like bursitis and rotator cuff tears. These other conditions can occur in combination with shoulder impingement or by themselves.

There is also the possibility that your doctor will send you for some imaging tests to help ensure that shoulder impingement is the correct diagnosis for you.

- X-rays help to rule out arthritis and can sometimes show rotator cuff injuries¹
- MRIs and ultrasounds can show rotator cuff tears and bursa inflammation¹

I have shoulder impingement syndrome, now what?

The good news is that there are many treatment options available for shoulder impingement syndrome!

However, the most common and effective treatment for shoulder impingement syndrome is physiotherapy!

Physiotherapy treatment will most likely include:

- Patient education³
 - Your Physiotherapist will educate you about your condition
 - Work with you to identify any external factors that are contributing to your pain
 - Recommend changes to your home and work lifestyle and if you are an athlete, your athletic activities
- Pain management³
- Range of motion exercises
- Manual therapy
- Muscle strengthening exercises
 - Once range of motion is restored, your physiotherapist will get to work on helping you improve any muscle weaknesses you may have through a personalized exercise program
- Functional training³
 - Helps to safely transition you back into your more demanding activities



- Your physiotherapist will teach you how to use and move your body in a correct and safe way.

Surgical treatment is only considered if the treatments outlined above failed to work. The surgery that is used to help treat this condition is **subacromial decompression or arthroscopic shoulder decompression**.¹ This treatment involves removing part of the acromion to help create more space for your rotator cuff. A benefit of this surgery is that other problems can also be fixed during this surgery like arthritis, rotator cuff tears, and inflammation of the biceps tendon.¹

Basic exercises

1. Shoulder/scapula circles

Stand upright and prepare to start the shoulder roll exercise. Shrug your shoulders up towards your ears, now slowly roll them backwards and downwards whilst trying to squeeze your shoulder blades together. Relax and return back to the starting position and repeat 2-4 times.



2. Cross arm stretch

Giving a gentle stretch with your other hand at the elbow. Try to keep your shoulder down. The stretch should be felt at the back of the shoulder and upper arm. Repeat 3–5 times, holding for 20 seconds. Do not do if it is painful in the front of the shoulder.



3. Shoulder internal rotation

Hold your rolled up towel or stick above and behind your head with the unaffected arm. With your affected arm, reach behind your back and grasp the towel. Using the arm above your head, pull the towel upward until you feel a stretch on the front and outside of your affected shoulder. Hold 15 to 30 seconds. Relax and move the towel back down to the starting position. Repeat 2 to 4 times.



4. External shoulder rotation lying down

Lie on your good side and bend your weaker elbow to 90 degrees. Keeping your elbow at your side, rotate your forearm upwards. Hold this position before slowly returning your hand toward your body. Ensure you do not roll backwards during the movement. Complete 2 sets of 6 reps.



What Next?!

If you think you have shoulder impingement syndrome or have been diagnosed by a doctor, you should see a physiotherapist. Together we can come up with a treatment plan that works best for you! Email us at informphysio12@gmail.com for more information!

Disclaimer

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