

Shoulder Impingement



Feeling squeezed? The space between the upper arm bone (humerus) and bony roof of the shoulder (acromion) is where the rotator cuff and bursa exist. If this space narrows or becomes irritated, it can become very painful. Here's what you should know.

"In general, shoulder impingement syndrome causes low-grade, persistent pain aggravated by overhead activity and is often worse at night. It may also cause weakness in the shoulder or arm."

Shoulder impingement syndrome is a condition that happens when the rotator cuff tendons are compressed and irritated by nearby bony structures during certain movements. The rotator cuff muscles help us move our arms and keep our shoulders stable in their sockets. Their tendons connect from the muscles, travel underneath the bony ridge of the shoulder blade, and attach onto the upper arm.

Pain is caused when the rotator cuff tendons become squeezed between the upper arm bone (humerus) and the overlying bony part of the scapula (the acromion). This issue is one of mechanical irritation, often caused by overuse of the shoulder joint.

In overhead athletes, like swimmers and baseball players, the rotator cuff can become fatigued from excessive use, preventing the shoulder from staying in its correct position in the center of the shoulder socket and allowing it to move upward toward the acromion. The rotator cuff tendons may also be swollen and inflamed, which further reduces the space between them and the acromion.

This results in more pain, as well as damage to the tendons, which can cause weakness and tearing. In these cases, the problem is not the acromion itself but rather the overuse of the shoulder and rotator cuff. However, if the problem is not corrected, the rotator cuff can tear, which may start as a partial-thickness tear, and progress to a full-thickness tear over time.

Symptoms

In general, shoulder impingement syndrome causes low-grade, persistent pain aggravated by overhead

activity and is often worse at night. It may also cause weakness in the shoulder or arm. Patients with shoulder impingement syndrome often experience a "squeezing" pain

- » On the outside of the upper arm
- » When the arm is extending above the head
- » When the arm is lifting, lowering from a raised position, or reaching out
- » When reaching behind (e.g. reaching for wallet)

Causes

Shoulder impingement syndrome is caused when the rotator cuff tendons continually rub between the arm bone (humerus) and the acromion. This leads to a vicious cycle of swelling and further narrowing of the space, causing more pain and irritation.

Anyone can get shoulder impingement, even people who work desk jobs. However, athletes who often perform overhead motions, such as swimmers and baseball players, are uniquely susceptible to impingement, as their rotator cuffs are regularly put under stress.

Diagnosis

The most effective way to get the right diagnosis is with a careful history, a thorough physical exam, x-rays, and sometimes an MRI.

The diagnostic term "impingement syndrome" had a very specific meaning when first used more than fifty years ago. Now, we have a better understanding of the shoulder and use the term "impingement syndrome" to describe patients who have pain when they raise their arms.

When a patient presents with this diagnosis, Dr. Romeo carefully examines the shoulder and reviews the x-rays and MRI results to better define the real cause of the pain and limited function. If questions remain, selective injections of local anesthetic into the space between the scapula and rotator cuff can help confirm the impingement syndrome.

Nonsurgical treatment options

Nonsurgical treatment options for shoulder impingement syndrome include:

- » Ice
- » Rest
- » Anti-inflammatory medications
- » Steroid injections
- » Physical therapy

Most cases of shoulder impingement syndrome can be successfully treated without surgery. In addition to rest, physical therapy, and anti-inflammatory medications, doctors will sometimes use corticosteroid injections and regenerative medicine to help patients recover. In most cases, these treatments are used for three to four months before surgery is considered.

If therapeutic exercises, medications, and injections fail to resolve the problem, then Dr. Romeo will perform a surgical procedure to widen the space above and around the rotator cuff, as well as debride (surgically remove) the inflamed tissues. In most cases, this procedure is combined with another surgery to treat a subsequent injury, such as a rotator cuff or biceps tendon tear.

How surgery is performed

Subacromial decompression surgery, also called acromioplasty, is performed arthroscopically (via keyhole surgery). Subacromial decompression surgery relieves pressure by making more space for the tendons of the rotator cuff.



"Subacromial decompression surgery relieves pressure by making more space for the tendons of the rotator cuff."

During surgery, a tiny camera is used to guide the insertion of a small tube and surgical instruments through a small cut. The inflamed bursa (a fluid-filled sac that allows tendons to slide easily over bones) located above the rotator cuff tendon is removed and some of the undersurface of the acromion is shaved off. This gives room for full range of motion without the rotator cuff tendons catching on the bone or rubbing against it.

Some patients develop a bony spur or growth on the undersurface of the acromion, causing a spike to pinch down on the rotator cuff. This is also removed as part of the procedure. In severe cases, your surgeon may need to schedule more complex surgery to repair damage or a tear of the rotator cuff or other tendons.

Recovery time

After surgery, you will be sent home with a sling to wear for a few days. Reduce swelling and discomfort by applying ice packs to the shoulder several times a day. Dr. Romeo will give you specific instructions for post-op pain management. After a few days, physical therapy begins. Physical therapy includes range-of-motion exercises and light strengthening exercises (below shoulder level) for the first few weeks.

You will typically be able to return to your everyday activities within four to six weeks if you follow your doctor's advice to avoid motions that put stress on the joint and tendons. This includes any activities that involve throwing or lifting above shoulder level. Swimmers will need to stay out of the pool during this time.

After six weeks, a moderate strengthening program will be implemented, including exercises above shoulder level. Shoulder impingement syndrome treated with an acromioplasty surgery usually takes about three to six months to heal completely. Advanced cases can require up to a year for full recovery.

Results

Most patients are able to return to normal activities in about three to six months, while some patients may take one year to fully recover.

FAQs

Is shoulder impingement syndrome sometimes confused with other conditions?

Yes, shoulder impingement syndrome is frequently misdiagnosed. Many conditions—such as calcific tendonitis, biceps tendonitis, arthritis, early frozen shoulder, and overuse of the shoulder—can mimic impingement syndrome.

Want to learn more? Find relevant videos, animations, and research material related to this procedure at romeoorthopaedics.com. →



For more information about shoulder impingement syndrome and treatment options, please request an appointment with experienced Chicago orthopaedic surgeon Dr. Anthony Romeo. He is also experienced and skilled at taking care of patients who have had surgery for impingement syndrome but did not achieve the outcome that they expected.

Please visit our website to find out how to schedule your appointment.