

# Shoulder Impingement Syndrome

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## Definition

Shoulder impingement syndrome is defined as a painful entrapment of the supraspinatus tendon, subacromial-subdeltoid bursa, and/or the biceps tendon between the humeral head and the coracoacromial arch. Impingement most often occurs in repetitive overhead activities such as swimming, skiing, serving a tennis ball, spiking a volleyball, throwing a ball, or jobs involving overhead reaching.

## Signs and Symptoms

The patient complains of pain around the top of the shoulder over the acromion arch. Touching the area with some pressure usually increases the pain and the discomfort. There are also a number of examination tests which the physician performs that help confirm that impingement exists.

## Diagnosis

Evaluation of impingement syndrome is based upon a thorough history and physical examination. Occasionally, further investigations are necessary (xrays, ultrasound, MRI) to distinguish between the various causes of shoulder pain and help guide appropriate treatment. Despite advanced imaging capabilities, impingement remains a clinical diagnosis.

## Treatments

The first step in treating these conditions is to reduce pain and inflammation with rest, ice and anti-inflammatory medicines such as aspirin, naproxen or ibuprofen. Gentle stretching and strengthening exercises are added gradually and quite often these are incorporated into a formal course of physical therapy. If there is no improvement, the doctor may inject a corticosteroid medicine into the space under the acromion. If there is still no improvement after six to 12 months, the doctor may refer you to an orthopedic surgeon where further surgical intervention may be necessary.

The primary aim of the surgical treatment of shoulder impingement is to make more space available for the tendons of the rotator cuff. Enlarging, or "decompressing" the space between the acromion and the head of the humerus can relieve the symptoms of impingement. Removing a part of the acromion can stop the tendons of the rotator cuff from rubbing on the bone. This type of surgery is called an acromioplasty. Because inflammation in the subacromial bursa contributes to the pain of impingement syndrome, this lubricating sack is often removed. This part of the procedure is called a bursectomy or a debridement. These two procedures together are called a sub-acromial decompression.

In general, the recovery from this surgery is usually quite quick. Physical therapy exercises are started very soon after surgery in order to speed up the rehabilitation process.