

Shoulder Impingement Syndrome

Athletes, industrial workers and home maintenance buffs often suffer shoulder pain caused by excessive rubbing or squeezing (impingement) of the rotator cuff and shoulder blade.

Shoulder impingement syndrome involves one or a combination of problems, including inflammation of the lubricating sac (bursa) located just over the rotator cuff, a condition called bursitis; degeneration of the rotator cuff tendons, called tendonosis; and calcium deposits in tendons. A torn rotator cuff is a potential outcome of shoulder impingement.

What is it?

Bursitis: Frequent extension of the arm at high speed under high load (i.e., pitching a baseball) can cause bursitis. Non-sports activities such as painting, hanging wallpaper or drapes or washing windows also can cause it. Medical research shows that the older you get, the more likely you are to develop bursitis.

Tendonosis: Tendonosis develops over time and is likely to occur when a person whose muscles are not in good condition starts an overly aggressive training program. In younger athletes, the causes of tendonosis are similar to those of bursitis.

What are the signs and symptoms? People frequently try to ignore the first signs of shoulder problems. There is usually no single episode of the shoulder giving way and, at first, a person may notice only minor pain and a slight loss of strength. Pain is generally located at the anterior and lateral shoulder with increased night pain and difficulty sleeping on the affected side. Loss of range of motion, especially the ability to lift the arm overhead, may be noted. Some people also complain of a catching sensation.

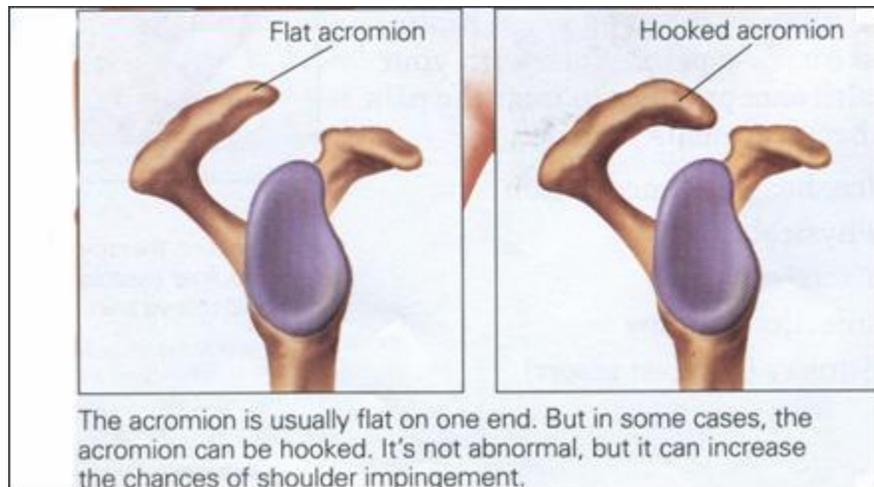
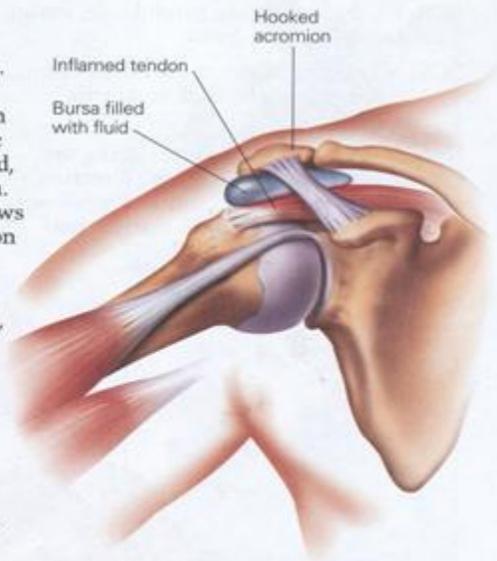
What is initial treatment? A non-surgical program of physical therapy to both stretch the shoulder and strengthen the rotator cuff muscles works well. Occasionally anti-inflammatory medications are prescribed. Activity modifications are usually suggested too. Patients should avoid activities that cause pain. In general, it is good to try and avoid repetitive use above the shoulder and try to work with the arms and elbows close to the body and below shoulder level. Subacromial injections with a powerful anti-inflammatory medication (corticosteroid combined with a local anesthetic) can also be indicated. Surgical intervention is indicated only after a patient has failed to improve with non-surgical treatment. Surgery is done to make more space above the rotator cuff tendons and/or to repair damaged tissue. Up to 85% of patients with impingement syndrome respond to non-operative treatment and do not need surgery. A typical course of non-operative care lasts a minimum of three months.

How Impingement Develops

Impingement can take time to develop. At first, you may feel a minor pain in your shoulder tendons. These tough strands of fibrous tissue connect muscle to bone. As the tendons become irritated, your body sends more blood to the area. This causes inflammation, which narrows the space even more. This inflammation is called **tendinitis**.

If you don't rest your shoulder, you may trigger another problem. The bursa, normally a flat membrane, fills with fluid. This is called **bursitis**. It causes more swelling and compression within the shoulder joint.

Both tendinitis and bursitis decrease the space within your shoulder joint. You may feel a painful pinching when you use your shoulder. And if you don't allow time to heal, impingement pain can increase.



The acromion is usually flat on one end. But in some cases, the acromion can be hooked. It's not abnormal, but it can increase the chances of shoulder impingement.

