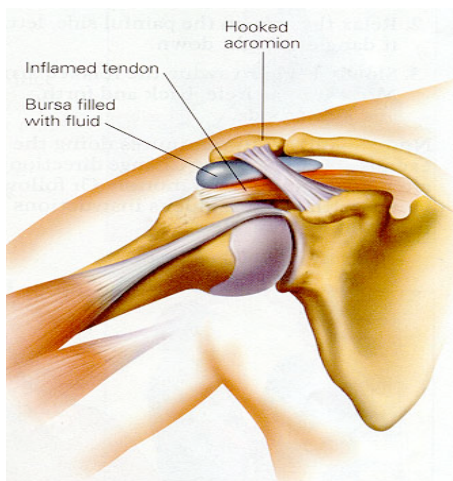


Impingement syndrome

Impingement occurs when there is increased pressure on the rotator cuff, commonly caused by a bone spur, tendonitis of the rotator cuff muscles, or bursitis (inflammation of a fluid filled sac in the shoulder joint). When any of these things occur, it irritates the rotator cuff tendon at its attachment in the front of the shoulder. The tendon sits between the acromion (the front edge of the shoulder blade) and the humerus. The space between these two bones is called the subacromial space. When the arm is raised overhead, behind the back or across the chest it decreases the amount of space between these two bones and “impinges” the rotator cuff tendon.



There are two types of impingement, primary and secondary. Primary impingement occurs due to an anatomical impediment of the joint (i.e. bone spur, acromion abnormality) space for the muscular tissue in the subacromial space. Secondary impingement occurs due to improper co-contractions of the dynamic stabilizers in the shoulder, the rotator cuff muscles. The shoulder joint sacrifices stability for mobility. In order to move the shoulder in all directions, a complex coordination of muscle contractions takes place to ensure proper movement without abutting one bone against another or decreasing the space between the bones and the

musculature. If one of the muscles involved in this important co-contraction process is inflamed or strained, or the joint itself has insufficient stability, the biomechanics become impeded, and, therefore impingement of the rotator cuff muscles takes place. All of the impingements above increase the pressure to the rotator cuff.

Symptoms:

Typically pain occurs in the front of the shoulder and may radiate slightly into the side of the arm. Pain is felt primarily with movements such as reaching, sleeping on the involved side, or sometimes lifting objects.

Treatment:

Treatment should start by getting an opinion from an orthopedic physician. Treatments vary depending on the type of impingement. If the impingement is classified as primary, intervention from an orthopedic surgeon is typically involved. For secondary impingement, conservative treatment typically consists of physical therapy. Physical therapy treatment may use different approaches and techniques to decrease inflammation, such as



modalities, soft tissue, and joint mobilizations. In addition, the therapist will evaluate your activities and biomechanics to possibly solve the cause behind, and solution to, the stresses in the tendon. Ultimately, physical therapy will attempt to increase biomechanical space of the acromion space through prescribed activity, postural modification, and manual techniques. This line of treatment may coincide with a corticosteroid injection by your physician to control the inflammation, but not as a cure to the problem.

If you would like more information about this issue, or need a physician referral in your area, please call us at 310-860-9720.