

Doc Talk - Boulder in the Shoulder

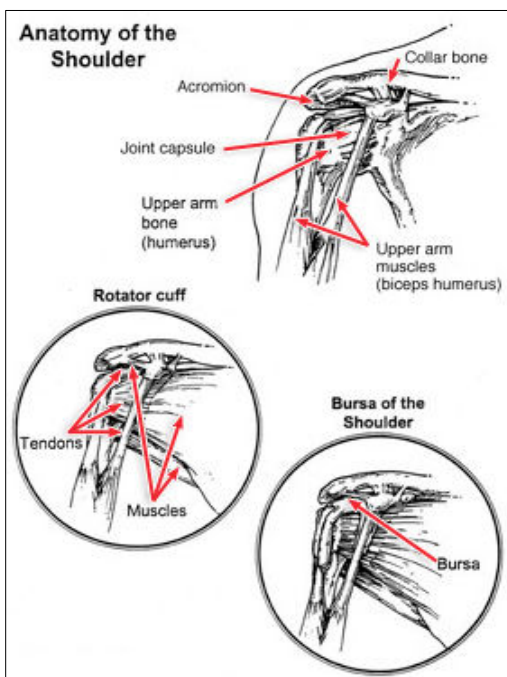
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In this short article I'll review the single most common cause of a visit to the orthopaedic surgeon for shoulder pain: **impingement syndrome**.

According to the American Academy of orthopaedic Surgeons in 2006, approximately 7.5 million people went to the doctor's office for a shoulder problem, including shoulder and upper arm sprains and strains. More than 4.1 million of these visits were for rotator cuff problems. The most common cause of rotator cuff problems is impingement syndrome.

The rotator cuff is made of four tendons. Tendons connect muscle to bone and cause joints to move in the direction the muscle is aligned relative to the joint. "Rotator" refers to the fact that the four tendons of the rotator cuff rotate the ball and socket shoulder joint in different directions. "Cuff" refers to the fact that the four tendons completely surround the ball of the shoulder joint like the cuff of your sleeve surrounds your wrist.

Impingement syndrome occurs when the rotator cuff tendons and bursa get pinched between the acromion and the upper humerus (the ball of the shoulder joint). This occurs when you raise your arm away from the side of your body or reach backward.



The bursa is a small fluid filled sack which rests between the rotator cuff tendon and bone. It is designed to reduce friction. As the pinching continues the bursa is programmed to enlarge and produce more fluid.

This concept works well other places in our bodies where the bursa has room to expand (back of the elbow, front of the knee). In the shoulder however the bursa has no room to swell and becomes part of the problem. My Dad would have described this as trying to put 10 pounds of stuff in a 5 pound bag.

The result is a vicious cycle where friction causes more swelling which causes more friction; it feels kind of like having a boulder in your shoulder.

Impingement causes pain in the outer shoulder. Most of my patients with impingement are amazed at how their shoulder pain increases when they lie down in bed. Pain is often worse at night possibly because the weight of the arm is no longer applying a downward traction.

Eventually the rotator cuff tendon can actually fail from a combination of mechanical wear (friction) and poor blood supply. We call this a rotator cuff tear. Rotator cuff tears do not heal because the fluid from the joint constantly leaks through the tear preventing the tendon from growing back to bone. Rotator cuff tears typically cause pain in the outer shoulder and weakness when attempting to lift your arm away from your body.

Treatment for impingement involves placing a cortisone-type injection into the bursa to decrease swelling and pain and physical therapy and home exercises to stretch the shoulder tissues and improve range of motion. If pain persists surgery is an option. Surgery involves removing the bursa and bone spurs which are causing pressure on the tendon. Rotator cuff tears can often (but not always) be repaired surgically using an arthroscopic or minimally invasive technique.

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