

Peter D. McCann, MD

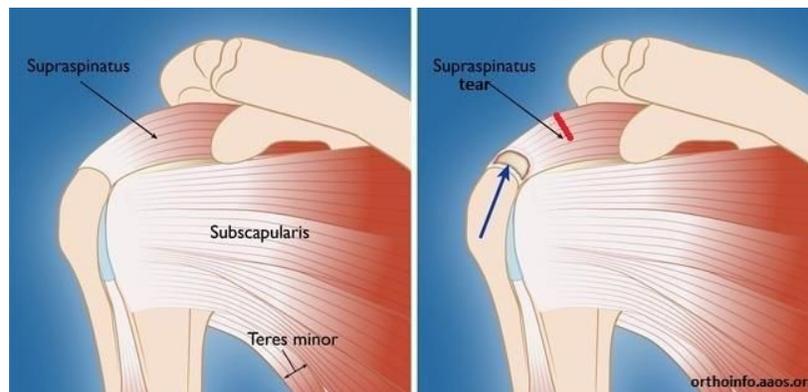
Shoulder and Elbow Surgery

Director of Orthopaedic Surgery, LHGV

Director of Orthopaedic

Strategic Initiatives, LHGV

SHOULDER IMPINGEMENT SYNDROME: Bursitis and Tears of the Rotator Cuff



WHAT IS SHOULDER IMPINGEMENT, BURSITIS, AND THE ROTATOR CUFF?

The rotator cuff is a group of four tendons and muscles in the shoulder that, in conjunction with the deltoid muscle, helps to raise and rotate the arm. *Shoulder impingement* is the formal medical term for injury to the rotator cuff. “*Bursitis*” is the common everyday term for shoulder pain due to inflammation or injury to the rotator cuff.

WHAT IS A ROTATOR CUFF TEAR?

A rotator cuff tear results from an acute injury, i.e. a fall onto the outstretched arm, or, more commonly, repetitive overhead use that, over time, wears down the tendon which then tears off the bone attachment.

Injuries to the rotator cuff, i.e. *Shoulder Impingement Syndrome*, typically have 3 stages: inflammation of an intact normal tendon, scarring and partial tearing of a chronically injured tendon, or a complete tear of the tendon with detachment from the bone insertion.

WHAT ARE THE SYMPTOMS OF A ROTATOR CUFF TEAR?

- Night pain that interrupts sleep
- Pain when lifting objects or reaching overhead
- Pain with overhead sports or recreational activities

HOW IS A ROTATOR CUFF TEAR DIAGNOSED?

Patients with injury to the rotator cuff will complain of pain at night that interrupts sleep, difficulty performing activities of everyday life at shoulder level and above such as donning a coat or reaching for a glass on a high kitchen shelf. Sporting and recreational activities requiring overhead use of the shoulder typically are painful in patients with injury to the rotator cuff.

The findings on physical exam of a rotator cuff tear include weakness in elevation and rotation of the arm, tenderness in the region of the rotator cuff tendon, and pain with active raising of the arm especially at shoulder level. Range of motion of the shoulder is usually normal.

Radiographs of the shoulder in patients with injury to the rotator cuff are typically normal with a well preserved joint space indicating no arthritis and no evidence of a fracture or dislocation. Magnetic Resonance Imaging (MRI) is the gold standard for diagnosing tears of the rotator cuff and is accurate in over 95% of patients. However, in the vast majority of patients, the diagnosis of injury to the rotator cuff can be made on the basis of history, physical examination, and radiographs. An MRI is not required to establish the correct diagnosis and begin a nonoperative treatment plan.

HOW IS A ROTATOR CUFF TEAR TREATED?

The initial treatment of injury to the rotator cuff, whether it be a strain of an intact tendon, partial tear of the tendon, or a full-thickness tear of the tendon includes activity modification to avoid those activities that exacerbate pain, anti-inflammatory medications and Tylenol to decrease pain, rehabilitation exercises to increase flexibility and strength of the shoulder performed independently or under the guidance of a physical therapist, and a subacromial cortisone injection. These measures cure up to 80% of patients, even those with full thickness tears.

Patients who have persistent **pain** that compromises the quality of life despite a minimum of 3-4 months of nonoperative treatment are considered surgical candidates and are treated by arthroscopic removal of inflamed tissue (bursitis) in the shoulder, removal of any spurs rubbing on the tendon, and, finally, repair of the tendon back to the bone from which it tore. Surgery cures approximately 90% of patients. Pain relief after surgery is consistent and predictable, which is why **pain** is the major indication for operative treatment. Return of strength is less predictable and dependent on the size of the tear and the amount of associated atrophy of the muscle.

Finally, it is important to note that many people who have no pain in the shoulder and no limitations in their activities have tears of the rotator cuff of which they are completely unaware. Such asymptomatic people require no treatment.