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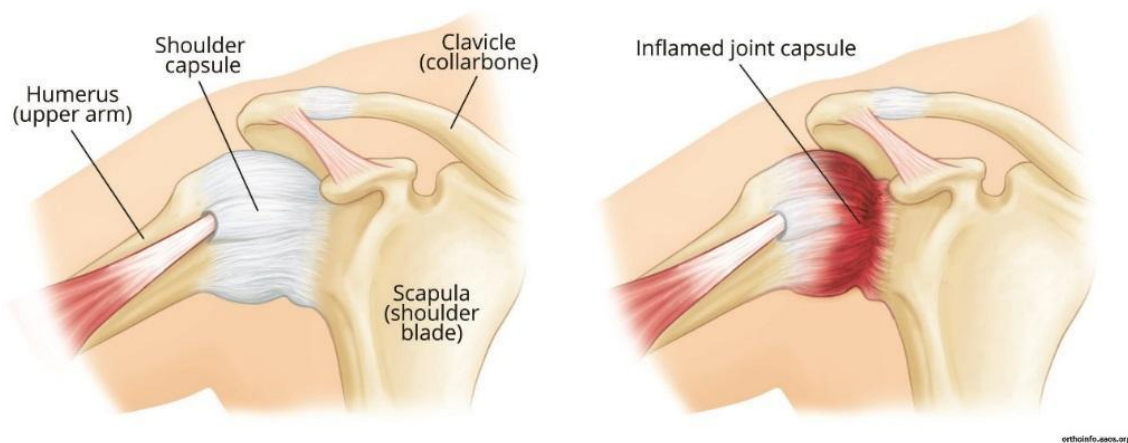
Shoulder and Elbow Surgery

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## **FROZEN SHOULDER (ADHESIVE CAPSULITIS)**



### **WHAT IS FROZEN SHOULDER?**

There are many reasons why a shoulder may become stiff and painful: arthritis, fracture, infection, calcific tendonitis, etc. Frozen shoulder, also known as adhesive capsulitis, is defined as a stiff and painful shoulder without any obvious cause. Frozen shoulder is the diagnosis given when there is no other cause for stiffness and pain in the shoulder and x-rays appear normal.

### **WHAT CAUSES FROZEN SHOULDER?**

We do not know what “causes” frozen shoulder, but we do know the anatomic structure involved: the *shoulder capsule* (ligaments connecting the upper arm to the glenoid, the lateral portion or socket of the shoulder blade). For reasons that we do not understand, this shoulder capsule becomes inflamed. Inflammation then causes capsule tightness and pain, which result in restricted use of the shoulder. This restricted use further increases stiffness of the shoulder, which, in turn, causes more pain, as the vicious cycle continues.

Ninety percent of the time, frozen shoulder typically occurs in women, usually between the ages of 40-60 years, and may be associated with diabetes and thyroid disease, again for reasons that are poorly understood. The condition usually begins without an injury, or following a trivial event that would otherwise cause no injury.

## **WHAT ARE THE SYMPTOMS OF FROZEN SHOULDER?**

The symptoms are pain and stiffness of the shoulder which can cause nighttime pain that interrupts sleep and compromises everyday activities that require full range of motion of the shoulder; i.e. overhead reaching, clipping a bra in the back, donning a coat, etc.

## **HOW IS FROZEN SHOULDER DIAGNOSED?**

Frozen shoulder is best diagnosed with a history and physical examination. Shoulder range of motion is markedly limited in all directions compared to the normal opposite shoulder, strength is normal, and there is no focal tenderness in the shoulder. An X-ray is always normal, by definition. An MRI is also normal, showing neither arthritis nor a full thickness tear in the rotator cuff, but is not required to establish the diagnosis and begin treatment.

## **HOW IS FROZEN SHOULDER TREATED?**

The initial treatment of frozen shoulder includes:

- Activity modification to avoid those activities that exacerbate pain
- Anti-inflammatory medications and Tylenol to decrease pain
- Rehabilitation exercises to increase flexibility of the shoulder performed independently or under the guidance of a physical therapist.

An intra-articular cortisone injection is sometimes helpful.

Stretching exercises are most effective when performed briefly for 1-2 minutes and frequently 3-5 times daily. Twice weekly sessions with a physical therapist alone is not sufficient treatment. Frequent stretching exercises are essential.

90% of patients are cured on this program which may require up to 3-4 months of stretching exercises. Once full range of motion is restored, the pain resolves.

Patients who have persistent pain and stiffness unresponsive to a full non-operative treatment program for a minimum of 3-4 months benefit from manipulation of the shoulder under anesthesia with arthroscopic release of the contracted capsule and removal of inflamed tissues.

