FROZEN SHOULDER

What is a frozen shoulder?

Frozen shoulder, also known as **adhesive capsulitis**, is a disorder characterized by pain and **loss of motion** in the shoulder. The shoulder is supported by ligaments and a joint capsule. When frozen shoulder occurs, the ligaments and capsule develop an inflammatory process, causing scar tissue and adhesions to form, resulting in significant pain and a marked loss of range of motion in all planes.

Who is at risk for developing a frozen shoulder?

Women between the ages of 40 and 60 are most likely to develop frozen shoulder. Approximately 70% of frozen shoulder patients are women. People with diabetes are also at a higher risk as 10%-20% of this population can develop a frozen shoulder. Other risk factors associated with frozen shoulders include hypothyroidism, hyperthyroidism, cardiac disease, rheumatologic conditions, or surgery. Frozen shoulder can develop after a shoulder has been immobilized for a period of time, after minor injuries, or occur spontaneously. It basically represents an exaggerated form of shoulder inflammation resulting in variable degrees of shoulder stiffness.

What are the symptoms of a frozen shoulder?

A gradual onset of pain along the outer part of the shoulder is commonly seen. The pain results in a loss of motion as the inflamed shoulder causes the patient to splint the shoulder by not moving it, thereby setting the stage for scar tissue to develop and bind the shoulder joint even tighter.

Generally, frozen shoulder follows a course of three stages:

Stage 1: "The freezing stage". This is characterized by the onset of initial pain and a gradual loss of motion. This stage can last up to four months.

Stage 2:"The frozen stage". In this stage the patient's pain gradually improves, but the loss of motion is still present. This stage can last up to four months.

Stage 3: "The thawing stage". This is the final stage of frozen shoulder which is characterized by a gradual return of range of motion and recovery of the function of the arm. This stage can also last up to four months.

It is not unusual for a frozen shoulder to take **12 months** to run its course. In some cases it may take less time, and in some it may take longer.

How is the diagnosis made?

The diagnosis of frozen shoulder is normally made **clinically** by an orthopedic specialist. Generally motion is lost in all planes. The symptoms can be confused with tendonitis, bursitis, rotator cuff tears or arthritis, but most times is not associated with an injury event. Sometimes patients will be seen in the office and initially have a classic presentation of shoulder bursitis and then evolve over six weeks to a full blown adhesive capsulitis. When your doctor notices a decrease in shoulder motion, particularly rotation, the diagnosis is established. Significant losses of motion, particularly loss of outward rotation are seen in shoulder arthritis and unrecognized posterior shoulder dislocations…both entities are seen far less frequently.

Additionally it is extremely unusual to see patients who present with simultaneous bilateral (both shoulders) frozen shoulder. The exceptions are occasionally in diabetic patients or in males over 65 years of age who have an inflammatory condition called polymyalgia rheumatica. We do see patients however who will at some time remote to the initial frozen shoulder develop a stiff shoulder on the opposite extremity.

How is frozen shoulder treated?

Frozen shoulder will generally get better on its own. However, this may require one year for complete resolution. Oral anti-inflammatory medications may be helpful in reducing early pain. If they are not effective, a cortisone injection into the shoulder joint may be considered for pain relief. A physical therapy program should be initiated with the goals of reducing pain and improving range of motion. It is common for patients with frozen shoulder to need **6 months of physical therapy** before the disorder is resolved.

Surgical intervention may be considered **only** if the conservative measures described above fail to eliminate the patient's pain and motion deficits. Surgical intervention is aimed at stretching or releasing the contracted ligaments and joint capsule of the shoulder. The most common form of surgery includes manipulation under anesthesia and/or arthroscopic release of the joint capsule. Manipulation under anesthesia involves putting the patient to sleep and manually forcing the shoulder through ranges of motion to stretch out the contracted joint capsule. With arthroscopy, the surgeon would make several small incisions through the skin and into the shoulder joint to cut through the contracted tissues to restore motion.

Often, manipulation and arthroscopy are used together to try to obtain an optimal result. After surgery, intense physical therapy is initiated immediately to try to maintain the newly restored range of motion before post-operative scar tissue has a chance to set in and stiffen the shoulder again. Most patients will require 6 weeks to 3 months of post-operative physical therapy. Fortunately, it is very unusual for a frozen shoulder to recur.