Patient Guide to Frozen Shoulder (Adhesive Capsulitis)

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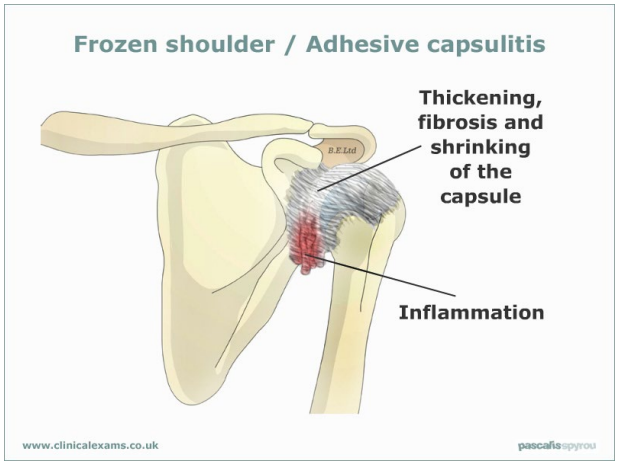
WHAT IS FROZEN SHOULDER?

Frozen shoulder results from the gradual loss of movement in the shoulder (glenohumeral) joint. This joint consists of a ball (the humeral head) and socket (the glenoid). Normally, it is one of the most mobile joints in the body. When the shoulder becomes frozen, the joint has become stuck and its movement is limited.



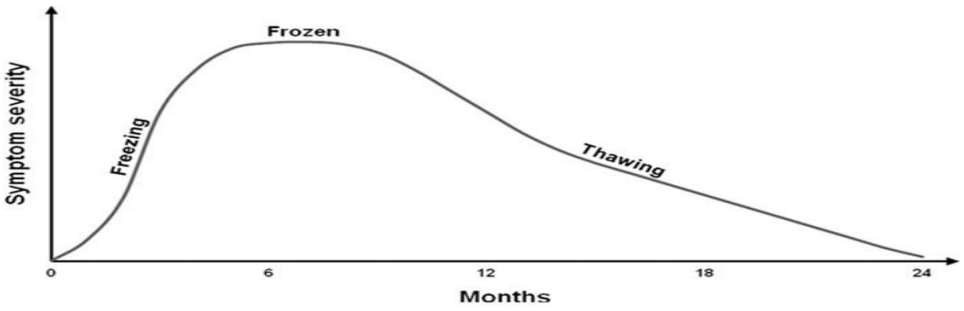
WHAT CAUSES FROZEN SHOULDER?

Although many shoulder diseases involve pain and loss of motion, frozen shoulder is most often caused by inflammation (swelling, pain and irritation) of the tissues surrounding the joint. The actual cause of adhesive capsulitis is unknown: it is idiopathic. It is most common in women in their 40's, 50's and 60's. It is common in those with diabetes or thyroid disorders but can be diagnosed in patients without those conditions. If you haven't been worked up for thyroid disorders or diabetes, we would recommend you see your medical doctor and be evaluated.

The tissue that envelops the joint and holds it together is called the capsule. Normally the capsule has folds that can expand and contract as the arm moves in various positions. In a frozen shoulder, the capsule has become inflamed, and scarring develops. This scar formation is called adhesions. As the capsule's folds become scarred and tightened, shoulder movement becomes restricted and moving the joint becomes painful. This condition is called adhesive (scarring)

capsulitis (inflammation of the capsule). Again, it is not known what causes adhesive capsulitis. Immobilization of the shoulder (after an arm injury, for instance) can lead to frozen shoulder. Inflammation of the muscles and or tendons, as with rotator cuff tendinitis or bursitis, can also cause the shoulder joint to become frozen. It can also develop without injury as well.

Adhesive capsulitis goes through three typical stages over a period of several months to several years. Those stages are called: Freezing, Frozen and Thawing stage. The Freezing and Frozen stages are often the most painful for patients and often are what drives them to come into the office to be seen. These are the stages in which the pain becomes the most severe and the motion becomes decreased. As the shoulder becomes Frozen, the motion is decreased and over time, patients have decreased pain in general but usually report pain at the end point of the range of motion of their shoulder. This Frozen stage can last for many months until the shoulder begins to Thaw. During the Thawing stage, patients report gradual return of their motion and resolution of their pain. By being evaluated by a physician, an early diagnosis of adhesive capsulitis can be obtained and can decrease the time for the symptoms to resolve.



HOW IS FROZEN SHOULDER DIAGNOSED?

The first step is to have a complete history and physical examination by your physician. Your physician may order several tests, such as x-rays, to rule out other potential causes of a painful shoulder or limited shoulder motion (arthritis, calcium deposits, etc).

HOW IS FROZEN SHOULDER TREATED?

The two main goals of treatment are to increase motion and to decrease pain. To increase motion, physical therapy will be prescribed. The physical therapist moves the patient's arm to stretch the capsule and teaches the patient home exercises that may include use of a wand or overhead pulley. He or she may also use ice, heat, ultrasound or electrical stimulation. The therapist will demonstrate a stretching program that you should do at least once or twice a day. These

exercises include the use of a cane, a home pulley system, and an elastic cord to increase motion of the shoulder.

To decrease pain, physicians frequently recommend over the counter medication such as Naprosyn (Aleve), Ibuprofen (Advil/Motrin) and Tylenol (two extra strength Tylenol and either two Aleve OR three Ibuprofen) can be taken AS NEEDED for the pain. An injection of cortisone is also recommended, depending on the severity of your symptoms. If caught early, an injection into the subacromial bursa is provided initially in conjunction with physical therapy. If the symptoms are more severe, an injection under ultrasound guidance will be recommended. This is performed in the office. A local anesthetic is used to first numb the shoulder then the ultrasound is used to inject cortisone directly into the glenohumeral joint. By putting the medication directly into the joint, this will help decrease the inflammation of the capsule and help improve your motion and decrease your pain.

HOW LONG DOES REHABILITATION TAKE?

Supervised physical therapy usually lasts from one to six weeks, with the frequency of visits ranging from one to three times per week. You will be educated on a home exercises program and should engage in home exercises and stretching throughout the healing process. The stretching exercises should be done at home at least once or twice daily, as noted above. In general, frozen shoulder will resolve almost completely with time and consistent compliance with the prescribed treatment program. This process can take up to six to nine months for some patients, although it may take only a few months for others. Internal rotation (moving the hand to the back pocket or up the middle of your back) is usually the motion that takes the longest to regain.

WHEN IS SURGERY INDICATED?

If the above program does not improve the range of motion and decrease the pain, then surgery may be indicated. An MRI scan often is obtained should you not be improving with conservative measures, prior to proceeding with surgery. After the patient has had a general or regional anesthetic, the arthroscope (a small instrument with a camera attached that is placed into the shoulder through a small puncture-type incision) is used to directly cut or release the capsular adhesions. Most patients begin physical therapy within a day or two following surgery. The physical therapy involves the same type of exercises you were educated on preoperatively- range of motion exercises and rotator cuff strengthening exercises. Other operations, such as the removal of spurs, may also be indicated or required at the time of the surgery.