

# FROZEN SHOULDER

## DESCRIPTION

Frozen shoulder (adhesive capsulitis) is a disorder characterised by pain and loss of motion or stiffness in the shoulder. It affects about 2% of the general population. It is more common in women between the ages of 40 to 70 years old. The causes of frozen shoulder are not fully understood. The process involves thickening and contracture of the capsule surrounding the shoulder joint. A doctor can diagnose frozen shoulder based on the history of the patient's symptoms and physical examination. X-rays or MRI (magnetic resonance imaging) studies are sometimes used to rule out other causes of shoulder stiffness and pain, such as rotator cuff tear.

## RISK FACTORS/PREVENTION

Frozen shoulder occurs much more commonly in individuals with diabetes, affecting 10% to 20% of these individuals. Other medical problems associated with increased risk of frozen shoulder include: hypothyroidism, hyperthyroidism, Parkinson's disease, and cardiac disease or surgery. Frozen shoulder can develop after a shoulder is injured or immobilised for a period of time. Attempts to prevent frozen shoulder include early motion of the shoulder after it has been injured.

## SYMPTOMS

Pain due to frozen shoulder is usually dull or aching. It can be worsened with attempted motion. The pain is usually located over the outer shoulder area and sometimes the upper arm. The predominant feature of this disorder is restricted motion or stiffness in the shoulder. Patients suffering from this condition cannot move the shoulder normally. Motion is also limited when someone else attempts to move the shoulder for the patient. Some physicians have described the normal course of a frozen shoulder as having three stages:

- Stage one: In the "freezing" stage, which may last from 6 weeks to 9 months, the patient develops a slow onset of pain. As the pain worsens, the shoulder loses motion.
- Stage two: The "frozen" stage is marked by a slow improvement in pain but the stiffness remains. This stage generally lasts 4 to 9 months.
- Stage three: The "thawing" stage is during which the shoulder motion slowly returns toward normal. This stage generally lasts 5 to 26 months.

## TREATMENT OPTIONS

Frozen shoulder will generally get better on its own. However, this takes some time, occasionally up to 2 to 3 years. If you have a stiff and painful shoulder, see your physician to make sure no other injuries are present.

Treatment is aimed at pain control and restoration of motion. The first goal is pain control. This can be achieved with anti-inflammatory medications or injections, such as corticosteroids. To restore motion, physical therapy is usually started. This may be under the direct supervision of a physiotherapist or via a home programme. Physiotherapy includes stretching or range of motion exercises for the shoulder. Sometimes heat is used to help decrease pain. Examples of some of the exercises that might be recommended can be seen in figures 1, 2 and 3.



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### FIGURE 1. OVERHEAD STRETCH

Lie on your back with your arms at your sides. Lift one arm straight up and over your head. Grab your elbow with your other arm and exert gentle pressure to stretch the arm as far as you can.



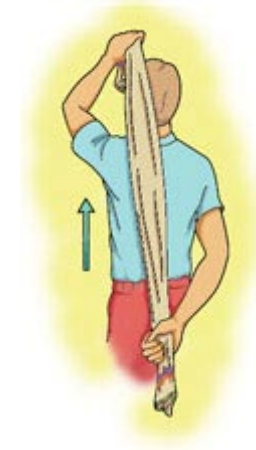
### FIGURE 2. CROSS-BODY REACH

Stand and lift one arm straight out to the one side. Keeping the arm at the same height, bring it to the front and across your body. As it passes the front of your body, grab the elbow with your other arm and exert gentle pressure to stretch the shoulder.



### FIGURE 3. TOWEL STRETCH

Drape a towel over the opposite shoulder, and grab it with your hand behind your back. Gently pull the towel upward with your other hand. You should feel stretch in your shoulder and upper arm.



Another more common treatment option is "Hydrodilatation". This involves injecting saline into the shoulder to break down the adhesions/scar. This is supplemented by cortisone and local anaesthetic. More than 90% of patients improve with these relatively simple treatments. Usually, the pain resolves and motion improves. However in some cases, even after several years, the motion does not return completely and a small amount of stiffness remains. In the long run, this small loss of motion does not seem to cause functional limitations.

#### TREATMENT OPTIONS: SURGICAL

Surgical intervention is considered when there is no improvement in pain or shoulder motion after an appropriate course of physiotherapy and anti-inflammatory medication. If surgery is considered, the patient should be aware that most people will get better if given sufficient time. Surgery always has risks involved. These risks will be discussed with your surgeon prior to surgery.

Surgical intervention is aimed at stretching or releasing the contracted joint capsule of the shoulder. The most common methods include manipulation under anaesthesia and shoulder arthroscopy:

- Manipulation under anaesthesia involves putting the patient to sleep and "manipulating" or forcing the shoulder to move. This process causes the capsule to stretch or tear.
- With shoulder arthroscopy, the surgeon makes several small incisions around the shoulder. A small camera and instruments are inserted through the incisions. They are used to cut through the tight portions of the joint capsule.

Often, manipulation and arthroscopy are used together in combination to obtain maximum results. Most patients have very good results with these procedures. After surgery, physiotherapy is important to maintain the motion that was achieved with surgery. Recovery time varies. Some patients require 6 weeks to 3 months off work depending on their occupation and speed of recovery.