



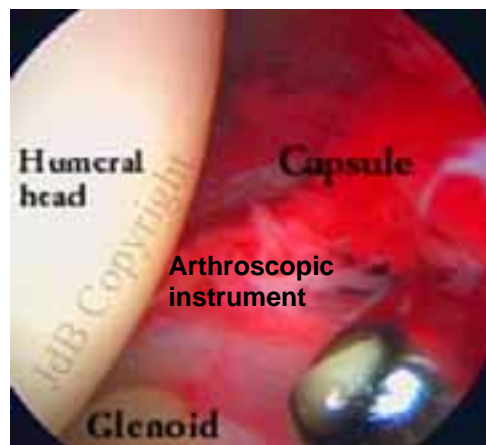
# JOE DE BEER & ASSOCIATE

ORTHOPAEDIC SHOULDER SURGEON • ORTOPEDIËSE SKOUER CHIRURG

J F de Beer, K van Rooyen, F Lam, D Bhatia

## FROZEN SHOULDER

Frozen Shoulder is a condition with no known cause in the majority of cases, with spontaneous onset. It is most common in females (40-50 years) but could affect males and other age groups. It may follow injuries, operations or be associated with medical conditions like diabetes mellitus. It is referred to as “adhesive capsulitis” suggesting that the capsule is inflamed and adhering (clinging) to the joint, causing pain and limitation of motion.



**Fig. 1.** An inside view of a frozen shoulder: note the extremely red and inflamed inner lining (synovium) of the shoulder. Any motion, especially if it is a quick and excessive movement pulls on this tissue and causes an intense experience of pain

## SYMPTOMS

Severe pain and restriction of movement. Night pain can be especially troublesome and with sudden movements intense pain may follow, e.g. reaching out to grab something. Reaching the hand up behind the back is usually a problem due to the restriction. To reach overhead the shoulder blade has to be lifted (see picture below).

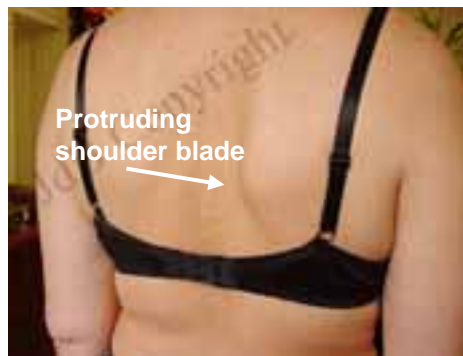
Pain may be felt in the shoulder, spreading up the neck and even down the arm into the hand. In some cases the shoulder blade may protrude at the back, referred to as “pseudo-winging” of the scapula (Fig. 4).



**Fig.2.** The range of motion is always decreased especially the external rotation with the arm by the side – here the limitation of external rotation of the left arm can clearly be seen



**Fig.3.** The stiffness also makes it impossible in some cases to elevate the arm fully. In this case the inability to raise the arm is apparent . The restriction may often be less than shown here



**Fig.4.** Due to the shoulder stiffness the shoulder blade may be pushed into an abnormal position of “winging”

Due to this abnormal position of the shoulder blade (Fig 4.) there is traction on the large nerves in the neck (brachial plexus) and this causes pain in the neck, shoulder and down the arm and at times into the hand. There may even be nerve-like symptoms down the arm and into the hand e.g. numbness and tingling. The position of the shoulder blade may also result in a dragging feeling in the back muscles attaching to the shoulder blade ( the “peri-scapular muscles” or rhomboids as they are called)

### **NATURAL PROGRESSION:**

Most clear up in anything from 6 months to as long as 3years, even without any treatment and the fact that the condition always clears up in time should relieve the anxiety of patients “that it will last forever”.

### **THE FOUR STAGES:**



**Stage 1:** “Inflammation” (0-3 months). The lining of the joint (synovium) is inflamed.  
Moderately severe pain

**Stage 2:** “Freezing Stage” (3-9 months ) Synovitis and scar formation in the underlying capsule.  
Severe pain.

**Stage 3:** “Frozen Stage” (9-15 months). Minimal pain, marked stiffness due to scar formation in capsule.

**Stage 4:** “Thawing Stage” (15-24 months). Little pain, movement increases.

## TREATMENT

**Medication:** A person suffering from frozen shoulder may suffer severe pain and should be aided with pain killers, anti-inflammatories and sleeping tablets if necessary. As this is a self-limiting condition with an “end point” the medication will only be necessary for a limited period

**Cortisone Injection** into the joint may be helpful in stage 1 and 2 (see above). Given early, such an injection may be of great benefit. During the later stages it has no effect. The injection has to be placed accurately into the joint as an injection into any adjacent area around the shoulder will not be effective

**Physiotherapy** consisting of gentle stretching exercises may be done although aggressive stretching should be avoided. The latter is not only very painful but has been shown to prolong the course of the condition

**Surgery** is seldom needed as the condition is self-limiting and always clears up if the patient waits long enough.

The operation favoured by some surgeons is that of arthroscopic capsulotomy where the inflamed capsule is cut with the intention to accelerate the process to full healing. Not all experts agree that this operation helps to relieve the pain of the condition.

**Manipulation under anaesthesia.** The inflamed capsule is torn under anaesthesia, with the intention that it should improve the condition- not universally favoured by surgeons

## Frequently asked questions:

**Q.1. May I use my arm while suffering with a frozen shoulder?**

**A.** Yes, definitely- movement is rather good than bad, although painful. During motion of the shoulder one pulls on the tight, inflamed capsule resulting in pain, but not damage.

**Q.2. Is Frozen Shoulder caused by an injury?**

**A.** Only in certain cases, but most are “out of the blue”, due to no apparent cause.

**Q.3. If a patient develops a frozen shoulder after a shoulder operation does it imply that “something has gone wrong”?**

**A.** No, not necessarily: certain patients are more prone to developing a frozen shoulder than others, e.g. females in the middle age group as well as diabetics.

**Q.4. After recovery, could the Frozen Shoulder come back again?**

**A.** It usually never recurs in the same shoulder and rarely in the other shoulder.

**Q.5. Does Frozen Shoulder always require treatment or even operation?**

**A.** Frozen Shoulder will recover spontaneously although an injection (especially in stage I or stage 2) may speed up recovery.

**Q.6. How long will I take to get better?**

**A.** The total duration of the process is anything from 6 months to 3 years. It is difficult, in a specific person, to predict the duration.

The message is that frozen shoulder is a self-limiting condition not requiring any operation in the majority of cases. In fact an erroneous operation due to a wrong diagnosis may aggravate the pain of frozen shoulder immensely.