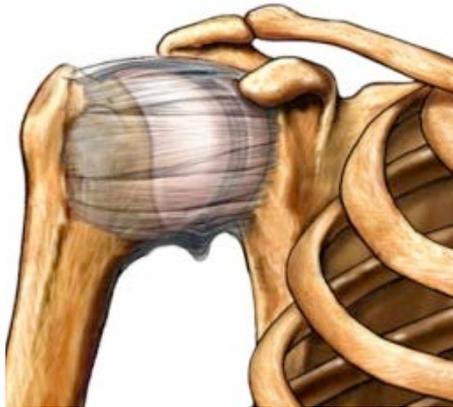


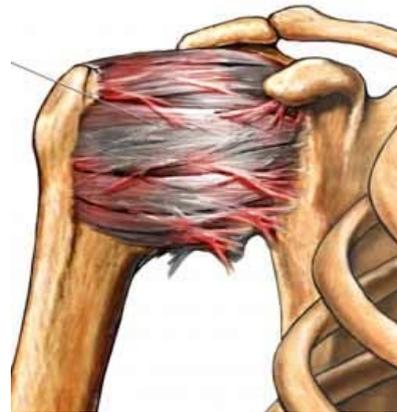


## ADHESIVE CAPSULITIS

Adhesive capsulitis, or “frozen shoulder” is a condition in which the normally loose and mobile capsule of the shoulder joint becomes inflamed, thickened and stiff. In the majority of patients, this condition is idiopathic, (which is Latin for “beats me why it happened”). What we do know, is that women, people with diabetes, thyroid problems, Dupuytren’s disease and some other conditions are more likely to get affected. In some cases, a *reactive* adhesive capsulitis can occur after a shoulder injury or surgery.



Normal shoulder capsule



Adhesive capsulitis

*How is adhesive capsulitis diagnosed?*

This condition is diagnosed by hearing your story and examining you. Typically x-rays of the shoulder are unremarkable. MRI scanning may show changes in the capsule or muscles of the shoulder, but is not necessary for making the diagnosis.

*How does adhesive capsulitis affect me?*

Adhesive capsulitis is a “self-limiting” condition, meaning that usually, it will eventually go away by itself. It slowly progresses through four stages until it eventually resolves. There is significant variation in the rate at which people go through the stages of adhesive capsulitis. It is essentially impossible to predict how quickly or slowly each patient will progress.

This can take 1-3 years. After resolution, some persisting loss of motion is common, although persistent pain is rare. Your other shoulder can be affected in 20-30% of cases, although not usually at the same time.

*The stages of adhesive capsulitis*

Stage	I: Preadhesive (Summer)	II: Freezing (Autumn)	III: Frozen (Winter)	IV: Thawing (Spring)
Timeline	10-36 weeks	3-9 months	9-15 months	15-42 months
Effects	Pain with movement, often worse at night Some loss of shoulder motion	Persistent rest and night pain Significant loss of movement	Minimal pain except at ends of motion Very limited movement of shoulder	Minimal pain with shoulder movement Gradual improvement in range of motion



### *How is adhesive capsulitis treated?*

In the early stages of the disease, the aim is to control pain and maintain motion. To do this, we recommend:

- Anti-inflammatory medication
- Steroid and anaesthetic injection (best in the early stages of the disease)
- Gentle stretching exercises, but not aggressive physiotherapy or manipulation

Early on in the course of adhesive capsulitis, a steroid injection into the joint can be helpful to break the cycle of pain and inflammation. If the first injection is not successful, a second about 4 weeks later often is. Occasionally, we will consider doing 3 in total, but this is usually not necessary.

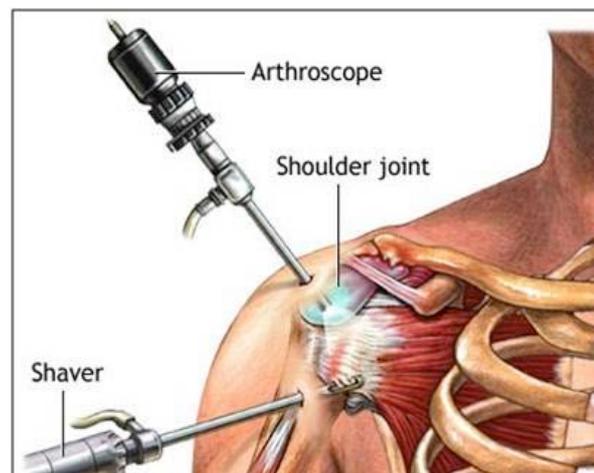
In the later stages of the condition, when the shoulder is stiff, the aim is to regain motion. Research has shown that aggressive physiotherapy is not helpful in regaining motion. Our recommendation is to continue gentle stretching exercises, within your comfort range, with slow, sustained stretching. Once your shoulder is not irritable, a gentle strengthening regime can be instituted.

### *Surgical treatment*

About 10% of patients with adhesive capsulitis eventually require surgery.

Surgery is useful for patients who have gotten “stuck” and not improved with non-operative treatment within 6 months. Traditionally, manipulation under anaesthesia has been used to break down the scarring within the shoulder capsule. This has been effective in 70-90% of patients, but does carry some potential risks, including nerve injury, dislocating the shoulder or breaking the humerus.

Our preferred operative treatment is arthroscopic release. This is performed under a general anaesthetic through 2-3 small puncture holes. A camera and instruments are placed into the shoulder, and the thickened capsule is divided and scarring released. After the surgery, you will stay in hospital overnight, with anaesthetic keeping the shoulder comfortable to help you get the arm moving again. Once back home, you will carry on a stretching program to keep the scar tissue from reforming.





*What are the risks of surgery?*

All surgical procedures have some element of risk attached. The likelihood of a life-threatening surgical complication, or damage to major blood vessels or nerves is very rare and unusual. The procedure does require a general anaesthetic, with the associated risks and concerns.

The most common and important risks of arthroscopic frozen shoulder surgery that have been reported are:

*Recurrent stiffness: 5-10%*

The shoulder will occasionally become stiff again after surgery. This is most commonly in patients with diabetes, whose adhesive capsulitis is more aggressive and much harder to successfully treat. Rarely the shoulder can require a repeat arthroscopic release surgery.

*Nerve damage or bleeding: less than 0.5%*

The axillary nerve runs close to the bottom of the joint and, if damaged causes weakness of the deltoid muscle and difficulty in raising the arm.

*Infection: less than 0.5%*

This is usually superficial in the wounds and is easily treated with antibiotics. Rarely the infection can be deep inside the joint and this requires surgery to wash the joint out.

*Instability: less than 0.1%*

This is a rare complication, where releasing the scarred capsule makes the shoulder unstable, ie more prone to having a dislocation. It is a recognized problem, but rare.