

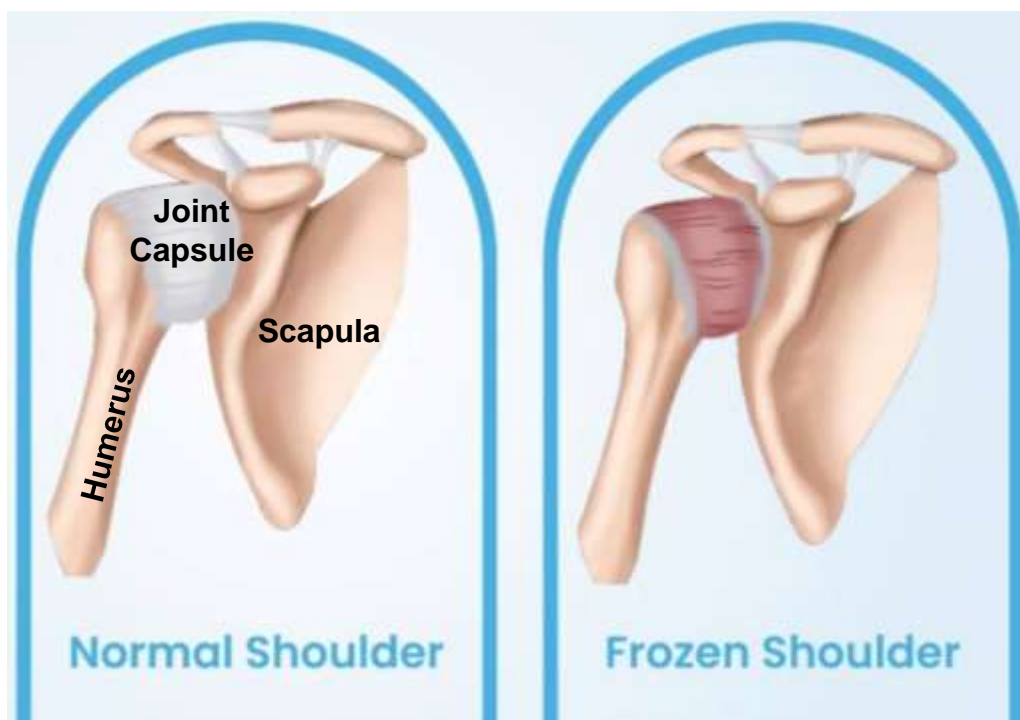
# Frozen Shoulder

## Adhesive Capsulitis

**Frozen shoulder is a common condition characterised by high levels of pain, followed by a progressive stiffening of the shoulder.** This can be debilitating. The stiffness may affect your ability to carry out everyday activities. In severe cases, you may not be able to move your shoulder at all, which is why it is called 'frozen'. It is common to experience a constant aching pain around the shoulder, which can throb into the arm and leads to disrupted sleep.

### What Causes Frozen Shoulder

**We still do not fully understand the causes and mechanisms of frozen shoulder.** The current theory is that the body's immune system triggers a protective response, which causes the shoulder joint capsule to become tight and inflamed (see Figure.1). This phenomenon can also be called 'adhesive capsulitis' ('adhesive' = sticky; 'capsule' = connective tissue and ligaments surrounding a joint; 'itis' = inflammation).



### What Contributes to Frozen Shoulder

Many people develop frozen shoulder without any reason but there are several factors that increase the likelihood of developing the condition including:

- Diabetes – around 30% of cases have diabetes, with similar results between Type 1 and Type 2 (1).
- Hypothyroidism - underactive thyroid (2).

- More common in females than males and tends to affect those aged between 40-60 (3).
- Previous trauma or surgery to the upper limb.
- Having frozen shoulder on one side increases the risks of developing frozen shoulder on the other side in the future with rates between 6-34% (4).
- Treatment for breast cancer (surgery or radiotherapy) (5).
- Dupuytren's contracture (6).
- Parkinson's Disease (7).
- Previous cardiac surgery following heart attack (8).

## How Long Will it Take to Get Better?

Each frozen shoulder is different and it depends on numerous factors including those previously mentioned as well as profession, lifestyle and mental health factors.

Unfortunately, frozen shoulder can take several months ranging to 2-3 years to improve, with 18 months being the average time frame. The condition can be very painful and debilitating but it does improve with time.

## How is Frozen Shoulder Treated?

If your shoulder is no better after six weeks you may need to see your GP

- **Rehabilitation:** A therapist can diagnose frozen shoulder following a detailed history and assessment. They will provide expert advice on the best exercises to perform. They may also try other pain-relieving techniques, including exercise and manual therapy. Supervised exercise classes have been shown to be more effective than just home exercise programs alone or wait and see approaches (9).
- **Corticosteroid Injections:** A steroid works as a strong anti-inflammatory. They are injected into the shoulder joint along with local anaesthetic. Corticosteroid injections are designed to reduce swelling, which can help to reduce the shoulder pain, but not necessarily improve the range of movement. Your range of movement may improve slightly as the pain is reduced.
- **Hydrodilatation** is an effective injection which can be used if the initial steroid injections do not work and you still have a lot of stiffness in your shoulder. Saline (salt water) is injected into the joint with steroid under high pressure to distend the capsule, which then allows more range of movement.
- **Surgery:** Most people recover from a frozen shoulder over time but a small percentage may need an operation to help with their movement and pain. There are 2 main operations that are carried out for a frozen shoulder.
- **Manipulation under anaesthetic (MUA):** The surgeon manually moves the shoulder and releases the capsule tightness whilst you are under an anaesthetic. You will not feel the procedure.
- **Arthroscopic capsular release:** This is 'keyhole' surgery done under general anaesthetic which involves releasing the tight capsule.

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