

Frozen Shoulder / Adhesive Capsulitis

A frozen shoulder is characterised by inflammation, adhesions and tightening of the connective tissue surrounding the shoulder joint, causing shoulder pain and a significant loss of shoulder movement.

The shoulder joint is a ball and socket joint. The shoulder blade gives rise to the socket of the shoulder, whilst the ball arises from the top of the humerus (upper arm bone). Surrounding the ball and socket joint is strong connective tissue holding the bones together known as the shoulder joint capsule (figure 1).

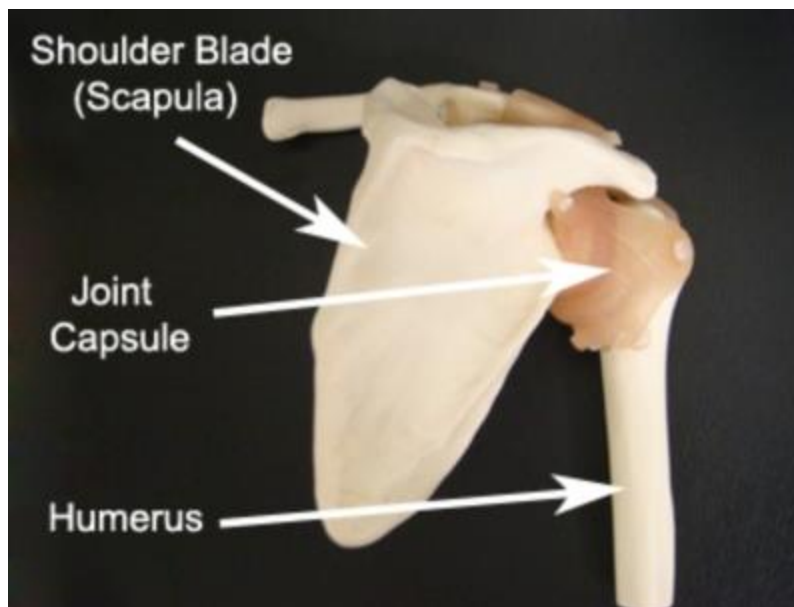


Figure 1 – Anatomy of Shoulder

Frozen shoulders most commonly occur in people over 40 years of age and typically affect women more commonly than men. They can generally be divided into 3 phases, each of which can last a number of months:

1. **Pain** – In this first phase of a frozen shoulder, the shoulder typically becomes painful with most movements and it may also start to stiffen during this phase.
2. **Freezing** – In this second phase, there is a marked loss of movement of the shoulder, coinciding with scarring of the shoulder joint capsule. Patients typically experience difficulty when elevating the arm or taking their hand behind their back. Pain may start to decrease during this phase.
3. **Thawing** – In this final phase, the shoulder spontaneously begins to 'loosen' up and movement to the shoulder is gradually restored.

Causes of a frozen shoulder

Whilst the exact cause of a frozen shoulder is not exactly known, it is thought to occur following injury or damage to the shoulder joint or adjacent soft tissue. It seems that it is more likely to develop if the initial injury is not treated appropriately. This can be due to either inadequate rest from aggravating activities or following excessive immobility (i.e. not moving the shoulder, particularly after injury or surgery). Auto-immune diseases or diabetes can also be predisposing factors.

Signs and symptoms of a frozen shoulder

The symptoms usually develop gradually over time. Typically it starts with a dull ache that may increase to a sharper pain with certain movements or activities. Pain tends to be focused deep in the shoulder, however it may also be in the upper arm, upper back and neck. The pain associated with a frozen shoulder may increase with any movement of the shoulder and with activities placing stress on the shoulder joint. E.g. arm elevation, lifting, carrying, pushing or pulling, lying on the affected side and taking your hand behind your back (e.g. putting on a bra). Patients with a frozen shoulder often experience pain at night or upon waking in the morning. As the condition progresses from the painful phase to the frozen phase, pain may reduce significantly. This is followed by significant stiffness and reduced range of shoulder movement.

Prognosis of a frozen shoulder

Most cases of frozen shoulder tend to settle after a number of months. In severe cases, symptoms may be present for 18 months or longer. Usually the painful stage of a frozen shoulder lasts 2 – 6 months. The frozen phase approximately 4 -12 months, whilst the thawing phase may last an additional 4 – 18 months.

In some cases, patients may experience ongoing and permanent restriction in movement following completion of all three stages. However, most cases of frozen shoulder will have a good outcome.

Other intervention for a frozen shoulder

Despite appropriate physiotherapy management, some patients with this condition do not improve adequately or require other interventions to ensure an optimal outcome. This may include further investigations such as X-rays, ultrasound, CT scan or MRI, pharmaceutical intervention, corticosteroid injection, hydrodilatation, and manipulation under anaesthetic or referral to either a shoulder or a pain specialist.