The Stiff Shoulder

There are two main causes of a truly stiff Shoulder; either a Frozen Shoulder or Glenohumeral (Shoulder) Joint Osteoarthritis. They can present in a similar fashion in terms of symptom onset, progression, pain experienced and movement available. It can be difficult to clinically differentiate between the two and other medical conditions can masquerade as either a Frozen Shoulder or an Osteoarthritic Shoulder.

What is a Frozen Shoulder?

The medical terminology common used to describe a Frozen Shoulder is that of Adhesive Capsulitis, although there is debate currently around whether this term is accurate or reflects our current understanding of the condition. The shoulder joint is encased in tough but flexible tissue known as a joint capsule; when someone experiences a Frozen Shoulder, areas of scar tissue form within the joint capsule leading to swelling, thickening and tightening.

This process is characterised by an onset of pain, usually without clear trauma or a mechanism of injury and progresses gradually where by people often report quite intense pain. As the joint capsule tightens, there is a loss of available movement at the shoulder leading to the sensation of stiffness.

It was previously taught and considered that a Frozen Shoulder has three distinct clinical stages however, there was difficulty identifying these stages and they seemingly did not help guide clinical management of the problem. Current thinking regarding Frozen Shoulder is that it should be considered in two stages; Stage One whereby the primarily complaint is one of pain and the secondary complaint stiffness; Stage Two whereby the primarily complaint is one of stiffness and the secondary complaint pain.

Our understanding of what causes a Frozen Shoulder hasn’t progressed conclusively since the 1930s! There have been many theories such as exposure to certain bacteria, impaired glucose regulation or the body being in a pro-inflammatory state due to lifestyle factors and stressors however, no one theory has been shown to be more conclusive than another. Whilst we don’t know the cause, we do know that certain people or certain characteristics seem to be associated with the development of a Frozen Shoulder and can be considered risk factors. These include:

- Female gender
- Middle-age (40-60 years)
- Rheumatoid Arthritis
- Diabetes
- Thyroidal Disorders
- Previous Shoulder trauma or surgery
- Dupuytren’s Contracture

The impact that Frozen Shoulder has on an individual can be debilitating with the progression of both pain and stiffness leading to difficulty sleeping, difficulty performing domestic activities of daily living such as reaching or driving and difficult performing personal activities of daily living such as hair washing or putting on a bra.
The Natural History of Frozen Shoulder

Frozen Shoulder is often considered a self-limiting condition, this means that it will get better on its own accord, over time, without intervention. For some people this holds true however, for most people this is not the case. This clinical observation is supported in the research whereby at an average of seven year follow up, 50% of people continue to have mild pain and 60% still report a moderate restriction in range of movement. Unfortunately, within healthcare the message that Frozen Shoulder is self-limiting is still communicated to people with the problem and they often left to suffer without intervention.

The aim of any intervention provided is to ease the pain and stiffness associated with Frozen Shoulder and in turn minimise the extent and length of the associated disability. Even with intervention, recovery from a Frozen Shoulder is unfortunately still a slow process and not one that occurs overnight.

Management of Frozen Shoulder within the Shoulder Service

The management of Frozen Shoulder depends on the stage of the problem as outlined above.

**Stage One: Pain > Stiffness**

The aim of intervention within this stage is to reduce the pain, maintain the amount of movement available and attempt to improve the movement available.

Within this stage, it is possible that poor application of Physiotherapy ‘hands on’ techniques such as joint mobilisations, manipulation or massage can in fact increase the pain of the individual. It is therefore important that the provision of such techniques is only used in a skilled manner and with continued assessment of response to ensure that the problem isn’t being exacerbated.

There is stronger evidence supporting the use of a corticosteroid injection within this stage to reduce the pain associated with the problem, in preference to traditional Physiotherapeutic techniques. The role of this injection is to reduce the pain and facilitate an exercise-based approach to rehabilitation.

For the injection to be most effective, it is important that an accurate diagnosis is obtained early on prior to the development of significant stiffness.

**Stage Two: Stiffness > Pain**

The aim of intervention within this stage is to restore full range of movement in the Shoulder now that the pain has settled.

It is within this stage that Physiotherapy really comes to the fore; through the use of joint mobilisations, manipulation, massage and exercise therapy, movement is restored to the Shoulder.

If there has been consideration to the quality of movement, muscular conditioning around the shoulder as well as general whole-body conditioning within the first stage of Frozen Shoulder then this can be built upon in this stage to help the individual progress towards their goals.

Despite best efforts, appropriate intervention and a reasonable period of conservative management, some individuals struggle to regain movement in the second stage of Frozen Shoulder. It is for these individuals that haven’t responded to conservative management and are still experiencing debilitating and persistent symptoms that a surgical opinion is often sort. The aim of surgery is to release the
thickened tissue within the joint capsule to assist in regaining range of movement prior to re-commencing Physiotherapy.

What Can I do to Help Myself?

Due to the length of recovery of a Frozen Shoulder, participation of the individual is vital.

It is important that the individual adheres to any exercise programme provided and that they continue to use their arm as much as possible as their pain allows; avoiding movement can lead to an exacerbation of the stiffness.

Appropriate use of analgesia can be useful in the first stage.