



# Frozen Shoulder

Healthshare Information for Guided Patient Management

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## What is a frozen shoulder?

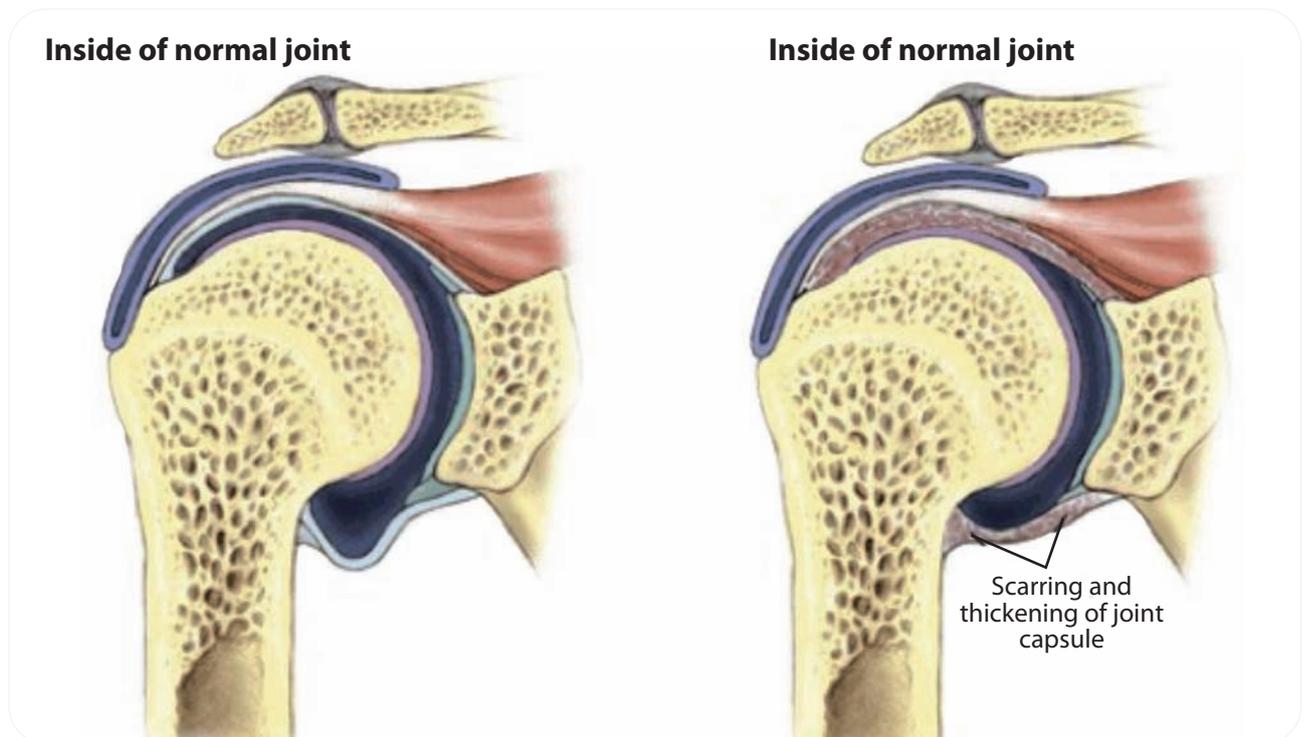
The shoulder joint (also known as the glenohumeral joint) is made up of two bones. One looks like a ball (known as the humeral head) and the other is a socket (glenoid fossa). Normally, the shoulder joint has the greatest range of movement of any region in the body, such as when we place our hands behind our backs to tuck in our shirts, or when we elevate our arms to place objects on high shelves.

People with frozen shoulders can rarely do these movements. Normally to allow the incredible movement we have at the shoulder, the shoulder capsule, which is tough tissue that holds the two bones together is actually quite lax. In a frozen shoulder the capsule contracts and significantly restricts normal movement. In addition, the nerves in the shoulder become very painful. This combination of events causes the two main clinical features associated with a frozen shoulder; restricted movement and (often very severe) pain.

The condition typically goes through three phases;

1. Painful stage (also known as the freezing stage)
2. Stiff phase (known as the frozen stage)
3. Resolution phase (known as the thawing phase)

There is often overlap between the stages.



Please be assured, that although the pain associated with a frozen shoulder may be very severe, and the loss of movement very frustrating, the condition isn't dangerous, and treatments exist that can help.



In Japan, frozen shoulders are known as the ‘fifty-year-old’ shoulder, as this is the most common age it occurs. Primary (or idiopathic) frozen shoulder is the term given when there is no reason to explain why the condition started. When a frozen shoulder starts after a specific event, such as; surgery, trauma, another shoulder problem, or in people who have other conditions, such as diabetes, it is called secondary frozen shoulder. Both types (primary and secondary) are treated in the same way.

Although scientists and clinicians have been researching frozen shoulders for over 100 years, we still don’t know why it happens. We do know it affects about 1% of the population, it is slightly more common in women, the non-dominant shoulder (i.e. the opposite side to the one you would throw a ball or write with), and also, it is more common in people with diabetes.

### How long does it last?

On average, frozen shoulders last for 30 months (or 2 1/2 years). For some people it’s much quicker, and for others, longer. Over time, for most people, the pain settles and the movement returns. Studies that have followed people with frozen shoulder for a long time have reported that for 40% to 60% of people diagnosed with a frozen shoulder (around 5 out of every 10 people) continue to experience ongoing pain and stiffness for up to 7 years and in some cases even up to 20 years.



### How is it diagnosed?

There is no blood test or scan that can diagnose frozen shoulder and the diagnosis is made clinically. It is made by excluding other causes of shoulder pain and an examination of how the shoulder moves.

Most commonly, restriction in the movement known as shoulder external rotation, which involves keeping your elbow by your side and moving your hand away from the body, helps confirm the diagnosis. This test as with other shoulder movements needs to be assessed in a number of ways (active and passive) and your clinician will explain this.

A shoulder x-ray (radiograph) is important to help establish a diagnosis of frozen shoulder. Shoulder x-rays are typically normal in a frozen shoulder, and are required to determine if the shoulder stiffness you are experiencing is not occurring for another reason (that may require a different treatment). An x-ray is also required before certain treatments (such as injections) should be considered. Occasionally (but not commonly) other forms of imaging may be required.

### What are my treatment options?

It is important to know the different treatment options available to you. Once diagnosed, some people with a frozen shoulder are happy for nature to take its course and manage it themselves.



One of the most effective treatments in the painful stage are injections. The injections are usually performed under anatomical landmark or ultrasound guidance, to ensure the accuracy of the location of the injection. Different medicines may be used. Steroids (also known as glucocorticoids or corticosteroids) are commonly used together with analgesics (medicines which reduce pain) to control pain in the early stages of the condition.

Another sort of injection known as a hydrodistension are also used. 'Hydro' means water, and sterile salty water (also known as sodium chloride) which natural occurs in our bodies is used to 'distend' or stretch the shoulder capsule from the inside. Before taking any medicine or undergoing any procedure, such as injections, it is essential to be aware of the benefits and risks, and to make sure they are safe for you. Prior to considering this option, you will be carefully screened by your clinician. If you choose to undergo injection therapy it is essential that this is followed up with additional treatment; which typically involves; exercises, and sometimes, soft tissue and joint treatments.

For those who should not have injections, or prefer not to consider this option, exercise, soft tissue and joint treatments may be tried without injections, but current research suggests injection therapy is more effective. There are two surgical options, but these are generally considered when non-surgical treatments haven't been effective. One reason for this is that there is very limited research evidence to support the surgical procedures.

It is important to be aware that currently no surgical or non-surgical treatment, or combination of treatments, can guarantee success or complete recovery. Because of this researchers and clinicians are investigating new ways to treat frozen shoulders.



### What can I do to help?

You need to keep your shoulder moving as much as you are able. Slow and gentle movements at first and progress when possible. Sometimes specific strengthening exercises can help.

If you are seeing a clinician you will be shown appropriate exercises (and you may receive additional treatment) for the stage of your condition. If you are trying to manage the condition yourself, you can try gentle ball rolling/wall sliding exercises (see last page). These exercises may also be performed using a polishing cloth.

Most importantly, as in nearly every health condition, the less time you sit and the more exercise you do (including walking) the less pain you will experience and the better you will feel. The last page details other exercises you can try to improve your shoulder movement and reduce pain.

Some people find placing a warm hot water bottle or microwavable heat pack on their shoulder for 10 minutes prior to the exercise makes them more effective. Others find placing an ice pack wrapped inside a damp tea towel and applied on the shoulder for 10 minutes can reduce the pain of a frozen shoulder, or related to exercises, can also help.



Hot and cold treatments should only be used if you have normal sensation (your clinician can test this) and must not be continued if they increase any symptoms. Some people find the combination of hot and cold helpful. If helpful, these treatments can be used 2 to 3 times a day.

Many people experience shoulder pain at night-time. One way that is often effective to reduce night pain, is to sleep on the pain free side and support the painful arm on 1 or 2 pillows. Your clinician can discuss other ideas with you.

## Exercises

Initially only perform these exercises within a range that you can tolerate. Usually that's up to the first increase in pain, or if you have no pain or only minimal pain, stop at the first point of stretch. As you are able try and hold the position of first stretch for 20 to 30 seconds. Initially, you can try each of these exercises, for a minute, twice each day, and as able, progress to a total of 20 minutes of exercise each day. Stop and consult if your pain increases.

### Seated shoulder movement exercises

Sit next to a table or bench and use a polishing cloth under your forearm with your thumb facing up towards the ceiling. Slowly slide both forearms forwards and backwards. Hold this stretch at least 20 seconds and repeat them 5 times. 3-4 times a day.



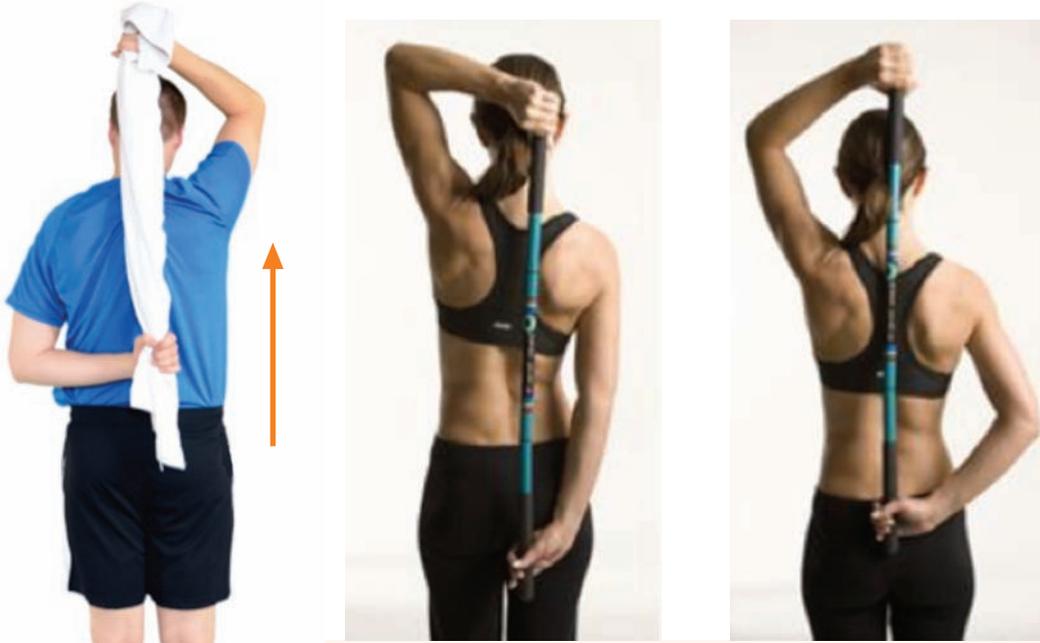
### Ball rolling exercises

You can use a 65-75cm 'Physio Ball', or a smaller foam ball, or even a polishing cloth to help maintain and attempt to increase your shoulder movement. With your thumb always facing up or towards you, roll the ball slowly and gently forwards and backwards along a table or bench or on your bed. You can progress by rolling up a (folded) ironing board placed on a chair, which can then be followed by rolling up a wall. You can also do these exercises standing at 45 degrees to the wall. Repeat 10 times. 3 - 4 times a day.



### Hand behind back with scarf or stick

Restoring the movement where you place your hand behind your back is often the slowest movement to return. You can try holding one end of a scarf in one hand and gently pulling your hand behind your back with the other hand (A). Some find using a walking stick (B) or small broom handle easier. Hold the stretch for 20 seconds and repeat 5 times. 3-4 times a day. Your clinician can suggest other treatments and progress your exercises as you are able.



### Shoulder rotations with stick

Moving your hands outwards (external rotation) is one of the common movements lost with frozen shoulder. Restoring this movement is important to return to your normal activities of daily living. Hold the stick in your hands while keeping the elbow close to your body and at right angles. Slowly move your arm outwards until you feel a comfortable stretch. Hold the position for 20 seconds and repeat 5 times. 3-4 times a day.



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