

INFORMATION FOR YOU

# Frozen Shoulder

FROZEN SHOULDER



The aim of this information sheet is to give you some understanding of the problem you may have with your shoulder. It has been divided into sections, describing your shoulder, what we know about frozen shoulder and your treatment options.

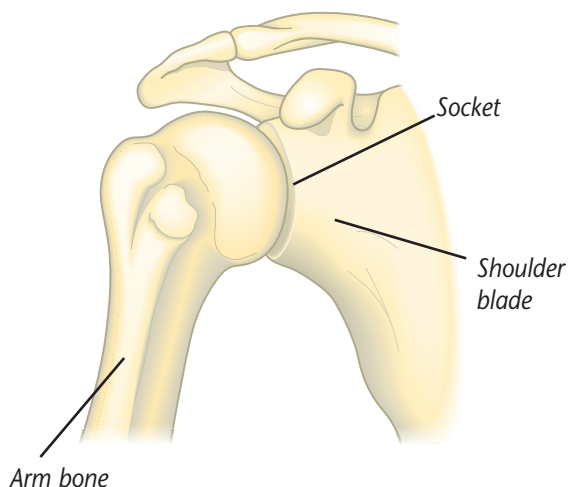
## About your shoulder

The shoulder is designed to have a large amount of movement so that we can use our hands/arms in a wide variety of positions. Some movement occurs between the shoulder blade and chest wall. However most shoulder movements are at the ball and socket joint.

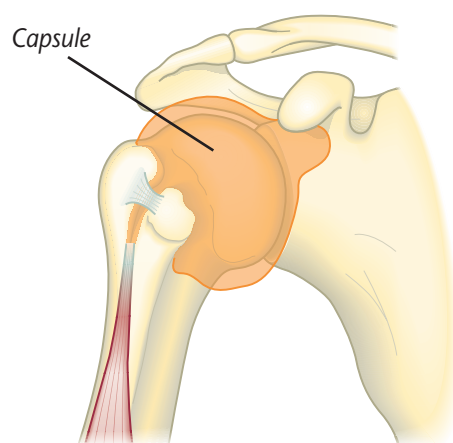
The ball at the top of the arm bone ('humerus') fits into the shallow socket ('glenoid') which is part of your shoulder blade ('scapula'). There is a loose bag or capsule which surrounds the joint. This is supported by ligaments and muscles.

### Right shoulder (viewed from front)

#### Bones



#### Capsule



## What is 'frozen shoulder'?

Typically the joint is stiff and initially painful, often starting without an apparent cause.

The loose bag (capsule) around the shoulder joint becomes inflamed. The bag then appears to tighten or shrink. This tightening combined with the pain restricts the movement.

## How common is it?

It is most common in people between the ages of 40 and 70 years and has been estimated to affect at least one person in 50 every year.

A staggering one million people in the UK will have frozen shoulder in a year.

About 10% of people may develop frozen shoulder in the other shoulder within 5–7 years of the first one. However it tends to resolve more quickly than the first.

Although it is widespread, it is a difficult condition to treat. We hope that this information sheet will help to explain what we know about it so far.

### Why does it occur?

A *primary frozen shoulder* is when the exact cause is not known. It is more common in people with diabetes and with a thyroid gland problem. About 15% of patients link it to a minor injury to the shoulder.

A *secondary frozen shoulder* can develop if the shoulder area is kept still for some time, for example, after a stroke or heart attack. It can also occur after major injury or surgery to the shoulder.

Some experts think the inflammation starts with a problem in the shoulder itself, others feel it is related to factors away from the shoulder (e.g. stiff neck, certain diseases).

Research is continuing to try and answer some of these questions.

### What tests may be done?

The main way we diagnose the problem with your shoulder is from what you tell us and from our examination. Sometimes an X ray will be done to check there are no bone changes in your shoulder joint.

### What is likely to happen?

There are 3 main phases

#### 1) Painful phase (which can last from 2 to 9 months)

The pain often starts gradually and builds up. It may be felt on the outside of the upper arm and can extend down to the elbow and even into the forearm. It can be present at rest and is worse on movements of the arm. Sleep is often affected, as lying on it is painful or impossible. During this time movements of the shoulder begin to be reduced.

#### 2) Stiff phase (which can last from 4 to 12 months)

The ball and socket joint becomes increasingly stiff, particularly on twisting movements such as trying to put your hand behind your back or head. These movements remain tight even when you try to move the shoulder with your other hand or someone tries to move the shoulder for you.

It is the ball and socket joint which is stiff. The shoulder blade is still free to move around the chest wall, and you may become more aware of this movement.

#### 3) Recovery phase (which can last from 5 to 26 months)

The pain and stiffness starts to resolve during this phase, and you can begin to use your arm in a more normal way.

The total duration of the process is from 12 to 42 months, on average lasting 30 months.

It is important to realise that although the pain and stiffness can be very severe, usually the problem does resolve. It will not bother you for ever!

A review of people who had frozen shoulder approximately 7 years earlier shows that only 11% still had mild interference with everyday activities. However, 60% continued to have some stiffness in the shoulder joint when it was measured. So ultimately, it should have little effect on your daily life, although the joint may remain stiffer when tested.

## What are your treatment options?

There is no one agreed treatment option that has been shown to work.

Ultimately the shoulder appears to go through the three phases described and no treatment has altered this pattern. The passage of time is the main treatment!

During the **painful phase** the emphasis is on pain-relief. Therefore pain-killing **tablets** and anti-inflammatory tablets may be prescribed.

You can also try using **heat**, such as a hot water bottle, or cold (ice packs).

**Injections** into the joint may also be offered if the pain continues. **Physiotherapy** at this stage is directed at pain-relief (heat, cold and other pain relieving modalities such as electrotherapy). Forcing the joint to move can make it more painful and is best *not* pursued. You can try using a **TENS** machine (transcutaneous nerve stimulation) which some people find helpful or try alternative therapies such as **acupuncture**.

Once **stiffness is more of a problem** than pain, **physiotherapy** is indicated. You will be shown specific exercises to try and get the ball and socket moving. Some of these are shown at the end of this leaflet. In addition, the therapist may move the joint for you, trying to regain the normal glides and rolling of the joint. These are known as joint mobilisations. Muscle based movement techniques may also be used.

If movement is not changing with these measures, physiotherapy will be discontinued, although it is appropriate to continue with the suggested exercises to try and maintain the movement that you have.

Hopefully, as the recovery phase starts you will find that the movement gradually increases. This, again, can be a useful time to have physiotherapy to help maximise the movement.

## Surgery

If you have significant pain and stiffness the doctors may offer you a 'Manipulation under Anaesthetic' (MUA) plus arthroscopy operation. There is a separate information leaflet on this. It involves a distension procedure which tries to stretch the loose bag (which is now tight) around the shoulder joint. The tight capsule may be released or removed. In addition the joint is stretched in certain directions to try and free the joint up.

This operation is *not* done routinely for frozen shoulder, only for those which are very slow to resolve.



## Exercises

These are some examples of exercises to **stretch** your shoulder. They may be changed for your particular shoulder.

Do exercises regularly 1–2 times a day. You may find them easier to do after a hot shower or bath. Using a hot water bottle is another alternative.

It is normal for you to feel aching or stretching sensations when doing these exercises. However severe and lasting pain (e.g. more than 30 minutes) is not recommended. Reduce the exercises by doing them less often or less forcefully. If the pain is still severe discontinue the exercises and see the physiotherapist or doctor.

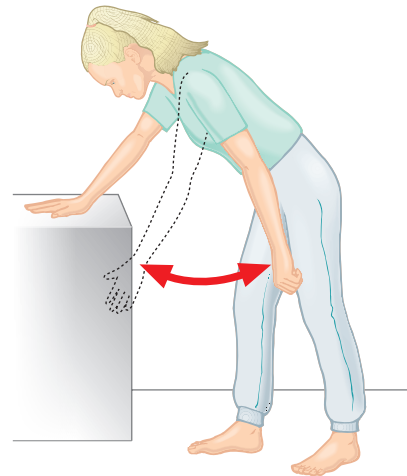
Please note: Raising your arm forwards often improves first. Getting your hand behind your low back appears to be the last movement to return. **Do not do these movements if they are painful rather than stiff.**

### 1. Pendulum

\* exercises shown for right shoulder unless stated.

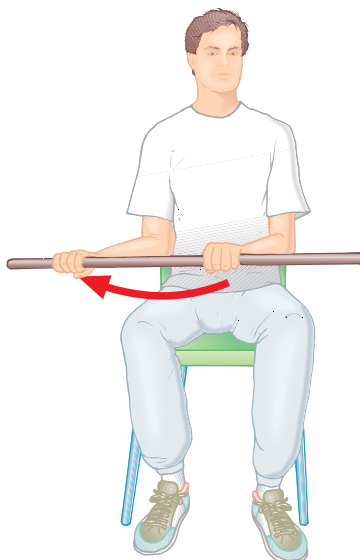
Lean forwards with support  
(shown for left shoulder)

- Let arm hang down
- Swing arm
  - forwards and back
  - side to side
  - around in circles (both ways)
- Repeat 5–10 times each movement



### 2. Twisting outwards

Sitting holding a stick (rolling pin, umbrella)

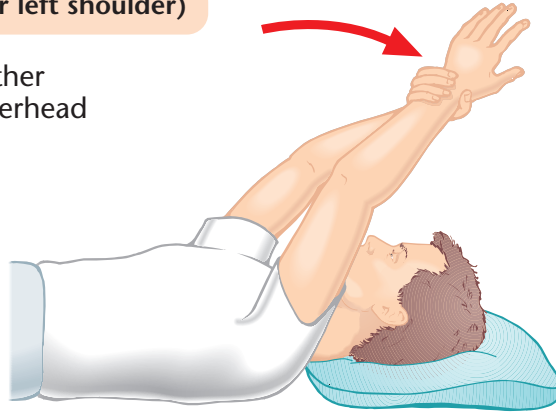


- Keep elbow *into your side throughout*
- Push with unaffected arm so hand of problem side is moving away from the mid-line (can be done lying down)
- Do not let your body twist round to compensate
- Repeat 5–10 times

### 3. Arm overhead

Lying on your back (shown for left shoulder)

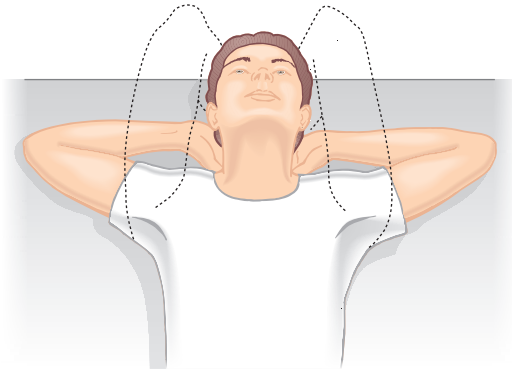
- Support problem arm with other hand at wrist and lift it up overhead
- Do not let your back arch
- Can start with elbows bent
- Repeat 5–10 times



### 4. Twisting outwards/arm overhead

Lying on your back, knees bent and feet flat

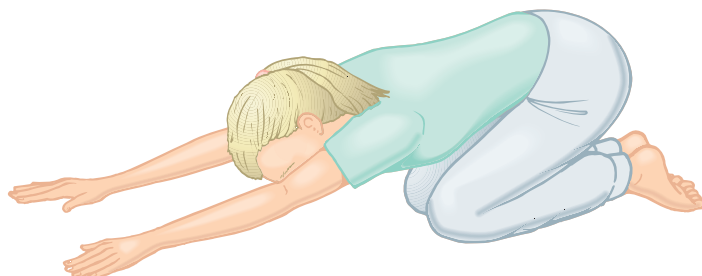
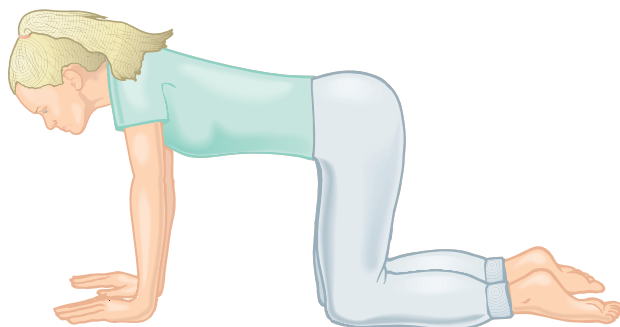
- Place hands behind neck or head, elbows up to ceiling
- Let elbows fall outwards
- Repeat 5–10 times



### 5. Kneeling on all fours

Keep your hands still

- Gently sit back towards your heels
- To progress take your knees further away from your hands
- Repeat 5–10 times



### 6. Sit or stand

- Try and set up a pulley system with the pulley or ring high above you. Pull down with your better arm to help lift the stiff arm up
- Repeat 10 times

NB. Normally it is best to have the fixed pulley point behind you.



### 7. Stretching the back of the shoulder (shown for left shoulder)

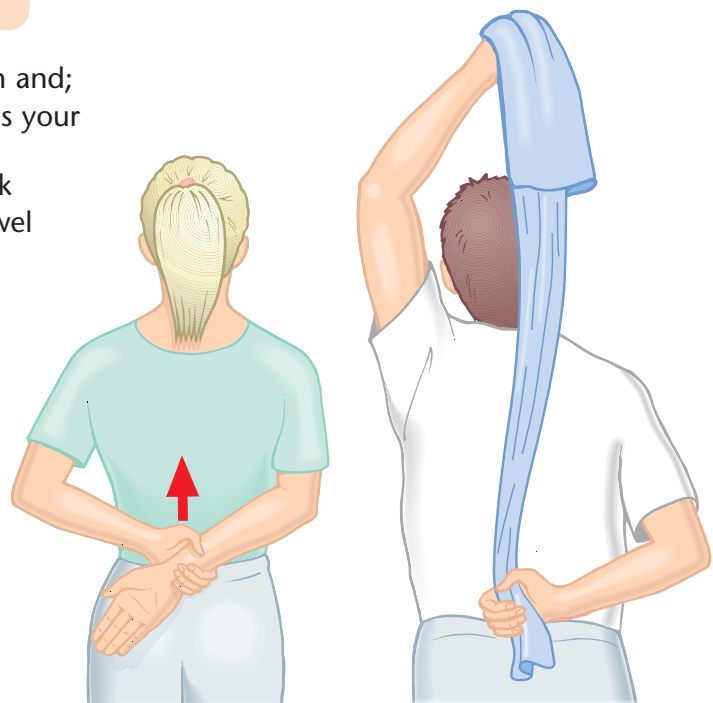


- Take hand of your problem shoulder across body towards opposite shoulder
- Give gentle stretch by pulling with your uninvolved arm at the elbow
- Sometimes you can feel more stretch if you lie on your back to do the movement
- Repeat 5 times, holding for 20 seconds

### 8. Hand behind back

Standing with arms by side

- Grasp wrist of problem arm and;
- gently stretch hand towards your opposite buttock
- slide your arm up your back
- Can progress and use a towel
- Repeat 5 times



Remember this is often the last movement to return – do *not* force if painful, rather than stiff

This leaflet has been written to help you understand more about the problem with your shoulder. ***This leaflet is not a substitute for professional medical advice and should be used in conjunction with verbal information and treatment given at the Nuffield Orthopaedic Centre.***

Comments will be gratefully received. Please send to Jane Moser, Superintendent Physiotherapist, Oxford Shoulder & Elbow Clinic, Nuffield Orthopaedic Centre NHS Trust, Oxford, OX3 7LD or give in at a clinic appointment.

January 2004

[www.oxfordshoulderandelbowclinic.org.uk](http://www.oxfordshoulderandelbowclinic.org.uk)