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Frozen Shoulder

Frozen shoulder (in medical terms, adhesive capsulitis of the shoulder) is a condition where your shoulder becomes painful and stiff for no particular reason. Shoulder movements become reduced, sometimes completely 'frozen'. It usually only affects one shoulder.

It is thought to be due to scar-like tissue forming in the shoulder capsule. Without treatment, symptoms usually go away but this can take a long time: up to three years in some cases. Various treatments may ease the pain and improve the movement of your shoulder.

What is frozen shoulder?

Frozen shoulder is the medical term for a painful and stiff shoulder with no obvious cause.

It only affects about 3% of adults at some stage in their lives. It usually affects people in late middle age - between 40 and 60 - and is more common in women. People with diabetes are slightly more likely to get frozen shoulder.

Either shoulder can be affected but most commonly it is the non-dominant shoulder - that is, the left shoulder in a right-handed person. In about 1 in 5 cases the condition also develops in the other shoulder at some stage.

In frozen shoulder it is only the shoulder (and even then, usually only one shoulder) that is affected. It does not cause pain at any other joints. If other parts of your body are affected, like your knee joint or hands, it is not frozen shoulder and you need to contact a doctor to get the correct diagnosis.

Frozen shoulder symptoms

The typical symptoms are pain, stiffness and limitation in the range of movement of one (not both) of your shoulders. Frozen shoulder symptoms typically have three phases:

Phase one - the 'freezing', painful phase

This typically lasts 2-9 months. The first symptom is usually pain. Stiffness and limitation in movement then also gradually build up. The pain is typically worse at night and when you lie on your affected arm.

Phase two - the 'frozen', stiff (or adhesive) phase

This typically lasts 4-12 months. Pain gradually eases but stiffness and limitation in range of motion remain and can become worse. All movements of your shoulder are affected. However, the movement most severely affected is usually rotation of the arm outwards: a bit like the movement you would do if you were holding a tray of food on the palm of your hand, holding it out to the side. The muscles around the shoulder may get smaller as they are not used.

Phase three - the 'thawing', recovery phase

This typically lasts between one and three years. The pain and stiffness gradually go and movement gradually returns to normal, or near normal.

Frozen shoulder symptoms often interfere with everyday tasks such as driving, dressing, or sleeping. Even scratching your back, or putting your hand in a rear pocket, may become impossible. Work may be affected in some cases.

There is wide variation in the severity and length of symptoms. Untreated, on average the symptoms last 2-3 years in total before going. In some cases, it is much less than this. In a minority of cases, symptoms last for several years.

What causes frozen shoulder?

No one quite knows the cause of frozen shoulder. It is thought that scar tissue develops inside the shoulder, in the capsule that lines the shoulder joint. The scar tissue may cause the capsule to thicken, contract and limit the movement of the shoulder. The reason why the scar tissue forms is not known. In many cases there seems to be a reduction in the amount of lubricating fluid (synovial fluid) in the affected shoulder joint.

A frozen shoulder occasionally follows a shoulder injury. However, this is not usual and most cases occur for no apparent reason.

How is a frozen shoulder diagnosed?

The diagnosis of frozen shoulder is usually made by a doctor's examination. You may also have an X-ray or an MRI scan of your shoulder joint.

The hallmark of frozen shoulder is that an X-ray should be normal.

What else could frozen shoulder be?

It is vital to diagnose frozen shoulder correctly from the start, as the treatment options are different for different shoulder conditions. Other conditions that mimic frozen shoulder are:

- Rotator cuff injury: in this condition it is only sore when you do the movements (what doctors call active movement) but not when the doctor moves your arm for you (called passive movements). For people with frozen shoulder both active and passive movements are painful.
- Osteoarthritis of the shoulder.
- Tendonitis of the biceps tendon.
- Inflammation of the bursa under the collarbone around the shoulder (called subacromial bursitis).
- Rheumatoid arthritis of the shoulder.

Frozen shoulder treatment

Even if you have no treatment at all, there is a very high chance your shoulder will get back to normal. Just give it time. If you are desperate for something to try though, here are some options:

Ordinary painkillers

Paracetamol may be advised first to try to control the pain.

Anti-inflammatory painkillers

Examples of anti-inflammatory painkillers include ibuprofen, diclofenac and naproxen. These medicines work by helping to ease pain and also by reducing any inflammation in your shoulder. Side-effects sometimes occur with anti-inflammatory painkillers: they can affect the kidneys and stomach. A short course of anti-inflammatories is usually recommended: perhaps a week or two. Prolonged use, even of something that can be bought over the counter like ibuprofen, can be very harmful to your kidneys and stomach.

Shoulder exercises

These are commonly advised. The aim is to keep the shoulder from 'stiffening up' and to move your shoulder as much as possible. For most benefit, it is important to do stretching exercises regularly as instructed by a doctor or physiotherapist. Shoulder exercises are unlikely to do any harm.

Physiotherapy

Many people are referred to a physical therapist who can give expert advice on the best exercises to use. Also, they may try other pain-relieving techniques such as warm or cold temperature packs and transcutaneous electrical nerve stimulation (TENS) machines.

A steroid injection

A steroid injection into, or near to, the shoulder joint can bring good relief of symptoms for several weeks in some cases. Steroids reduce inflammation. It is not a cure, as frozen shoulder symptoms tend to return gradually. However, many people welcome the relief that a steroid injection can bring. Steroid injections can cause harm - for example, by damaging the tendons inside the shoulder, introducing infection or causing bleeding.

Surgery for frozen shoulder

An operation is sometimes considered if other treatments do not help. Techniques that are used by orthopaedic surgeons include:

- Manipulation. This is a procedure where the shoulder is moved around by the surgeon while you are under anaesthetic. It can loosen up the adhesions but can risk damaging other parts of your shoulder.
- Arthroscopic capsular release. This is a relatively small operation done as 'keyhole' surgery. It is often done as a day-case procedure. In this procedure, the tight capsule of the joint is released with a special probe.

Surgery can help but can also risk damaging your shoulder. It is best avoided in frozen shoulder unless all other options have been tried and your shoulder is still very painful. Some studies have shown that you make the quickest and fullest recovery with just shoulder exercises alone.

Note: it is really important to avoid immobilising your shoulder - for example, with a sling or even a plaster cast. This will actually make recovery more difficult and will take longer to improve.

What is the outlook?

Frozen shoulder symptoms can continue for 18 months to 3 years or more. However, the vast majority of people with a frozen shoulder do recover to normal levels of function and movement by two years, even without any treatment.

It is very uncommon to have frozen shoulder more than once in the same shoulder.

Further reading & references

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