CONDITION

# Frozen shoulder

Frozen shoulder causes increasing pain and stiffness because the tissue around the shoulder joint becomes tight

**WHAT IT IS**
Painful tightening of the shoulder joint capsule

**BODY SYSTEM**
Bones, joints and muscles

**MAIN SYMPTOMS**
Shoulder pain, stiffness, reduced movement, sleep disturbance

**WHAT CAUSES IT**
Often unknown; capsule inflammation and scarring

**HOW IT IS DIAGNOSED**
Symptoms and examination; imaging excludes other causes

**MAIN TREATMENT**
Pain relief, guided exercises, injections, sometimes surgery

**CAN IT BE CURED?**
Sometimes - most recover, but stiffness can persist

**IS IT AN EMERGENCY?**
No - urgent features usually suggest another cause

**LONG-TERM OUTLOOK**
Usually improves slowly over one to three years

## Overview

Frozen shoulder is a painful condition that gradually restricts shoulder movement. Clinicians may call it adhesive capsulitis.

The shoulder is a ball-and-socket joint surrounded by a flexible sleeve of tissue called the joint capsule. With frozen shoulder, this capsule becomes inflamed, thickened and tight. Bands of scar-like tissue may develop, leaving less space for the joint to move.

Unlike many other shoulder problems, frozen shoulder limits both active movement, when you move your arm, and passive movement, when someone else moves it while you relax.

The condition often develops without a clear injury. It can also appear after an operation, injury or illness that has kept the arm still. Diabetes and some thyroid conditions increase the risk.

Frozen shoulder can interfere with dressing, driving, work, sleep and reaching overhead or behind your back. Most people improve, but recovery may take one to three years and some stiffness can remain.

## Symptoms

Pain is often the first symptom. It may be felt over the outer shoulder or upper arm and can be dull or aching, with sharper pain during certain movements.

Night pain is common, especially when lying on the affected side or turning over in bed. Stiffness usually becomes more noticeable with time. Everyday difficulties may include:

Symptoms are often described in three overlapping phases:

Not everyone follows these phases exactly, and their length and severity vary.

- Reaching a high shelf
- Putting on a coat or fastening clothing behind your back
- Washing or brushing your hair
- Reaching for a seat belt
- Moving your hand away from your body or turning the arm outward
- During the freezing phase , pain increases and movement gradually becomes more restricted.
- During the frozen phase , stiffness is usually the main problem. Pain may begin to settle, although some movements still hurt.
- During the thawing phase , movement slowly returns, sometimes unevenly.

## Causes and risk factors

In many cases, there is no clear cause. This is called primary frozen shoulder.

Secondary frozen shoulder develops after something limits normal shoulder movement, such as a fracture, shoulder surgery, stroke or another painful shoulder condition. The capsule appears to become inflamed before thickening and contracting, although it is not fully understood why.

Associated factors include:

Having a risk factor does not mean you will develop frozen shoulder, and it can occur without

any known risk factor. It is not caused simply by overusing the arm, poor posture or sleeping in the wrong position.

- Diabetes
- An overactive or underactive thyroid
- A period of shoulder immobilisation
- Recent shoulder or chest surgery
- Conditions that limit arm movement, such as stroke or Parkinson's disease
- Being in middle age

## Diagnosis

There is no single blood test or scan that confirms every case. Diagnosis is usually based on symptoms and a physical examination.

A clinician will ask when the problem began, which activities are difficult and whether you have had injuries, operations or relevant health conditions. They will compare both shoulders and check active and passive movement. Frozen shoulder typically limits movement in several directions, especially turning the arm outward.

An X-ray may be used to exclude arthritis, a fracture or other bone problems. Frozen shoulder itself often does not show on a standard X-ray.

Ultrasound or MRI scans are not always needed. They may be considered if the examination suggests another problem, such as a rotator cuff tear. Blood tests may be appropriate if your symptoms or history suggest diabetes, a thyroid condition, infection or another illness, but they do not directly diagnose frozen shoulder.

## Treatment and management

Treatment aims to control pain, maintain safe movement and support gradual recovery. The approach may change as pain settles and stiffness becomes more prominent.

Pain relief such as paracetamol or anti-inflammatory medicines may help you sleep and remain active. These medicines are not suitable for everyone, so ask a pharmacist or clinician what is safe with your health conditions and other medicines.

Heat or cold packs may provide temporary comfort. Wrap them to protect your skin, and do not use them on areas with reduced sensation.

Movement is important, but forceful stretching can worsen pain, particularly early in the condition. A physiotherapist may teach gentle exercises suited to your symptoms. Stretching and strengthening may become more useful as pain settles.

A corticosteroid injection into the joint can reduce inflammation and provide short-term pain relief, particularly during the painful phase. It does not guarantee faster or complete recovery. Discuss the benefits and risks beforehand, especially if you have diabetes, because steroid injections can temporarily affect blood glucose.

Hydrodilatation may also be offered. Fluid, usually with local anaesthetic and sometimes steroid like prednisone or hydrocortisone , is injected into the joint to stretch the capsule. It helps some people, but results vary.

Most people do not need surgery. If severe symptoms continue despite non-surgical treatment, a shoulder specialist may discuss:

Risks include fracture, tendon injury, infection and ongoing stiffness. Rehabilitation is usually needed afterward to maintain movement.

- Manipulation under anaesthetic , where the shoulder is moved while you are asleep
- Arthroscopic capsular release , keyhole surgery that divides tight areas of the capsule

## Complications

Frozen shoulder can cause prolonged sleep disturbance, difficulty working or managing personal care, and weakness if the arm is not used for a long time.

Some people do not regain their previous range of movement. Mild stiffness may remain after pain settles, although substantial long-term restriction is not the usual outcome.

Treatment can also cause complications. Medicines may have side effects, injections can cause temporary pain or changes in blood glucose, and procedures carry risks such as infection or injury.

Frozen shoulder does not usually cause progressive damage to the joint bones. New swelling, redness, fever, marked weakness or loss of feeling is not typical and needs separate assessment.

## Prevention

Primary frozen shoulder often cannot be prevented because its cause is unknown.

After an injury or operation, starting safe shoulder movement when your healthcare team

recommends it may reduce prolonged stiffness. Timing depends on what was injured or repaired. Moving too soon can interfere with healing, so follow your rehabilitation plan.

Managing diabetes and thyroid conditions is important for overall health but does not guarantee prevention. If shoulder pain starts limiting movement, early assessment may help identify the cause and establish a safe movement plan.

## Living with it and what to expect

Frozen shoulder usually improves slowly. Recovery commonly takes one to three years and can take longer. Pain often improves before full movement returns.

During the painful phase, keep frequently used objects within easy reach, dress the affected arm first and adapt work or household tasks. Avoid activities requiring safe shoulder control, including driving, if stiffness means you cannot perform them properly.

Regular gentle movement is usually better than complete rest or forceful exercise. Your exercise plan may need to change as symptoms change. Mild temporary discomfort can follow exercise, but persistent or severe worsening needs review.

Routine follow-up may be useful if pain is not controlled, sleep remains difficult, movement continues to decline or the condition affects work and self-care. A review can also check for another shoulder problem.

Frozen shoulder rarely returns in the same shoulder after recovery, although the other shoulder can be affected later. Temporary adjustments to work, sport and daily tasks may be needed because improvement is usually measured in months rather than weeks.

## When to get medical help

Arrange a routine appointment if shoulder pain or stiffness lasts more than a few weeks, gradually worsens or makes normal activities difficult. Seek earlier assessment if you have diabetes, a thyroid condition, a recent injury or recent surgery.

Seek urgent medical advice if the shoulder becomes hot, red or markedly swollen, especially with fever or feeling unwell. Sudden weakness, persistent numbness or inability to move the arm after an injury also needs prompt assessment. These features are not typical of frozen shoulder.

Get emergency help for shoulder or arm discomfort with chest pressure, shortness of breath, sweating, nausea, faintness or pain spreading to the jaw or back. These symptoms may be

related to the heart.

A visibly deformed shoulder, an open wound, or loss of circulation or feeling after a major injury also requires emergency care.

## Common questions

How long does frozen shoulder last?

It often lasts one to three years, although it can be shorter or longer. Pain commonly settles before stiffness, and recovery may happen in small steps.

Should I exercise a frozen shoulder?

Gentle, appropriate movement is usually encouraged. Forceful stretching through severe pain may aggravate symptoms, especially early on. A physiotherapist can tailor exercises to the condition's stage.

Is frozen shoulder the same as a rotator cuff tear?

No. Frozen shoulder involves tightening of the joint capsule, while a rotator cuff tear affects tendons around the shoulder. Both can cause pain and difficulty lifting the arm, so an examination may be needed.

Will a steroid injection unfreeze my shoulder?

It may reduce pain and improve movement in the short term, particularly during the painful phase, but it does not guarantee complete recovery.

Can I work with frozen shoulder?

Many people can continue with temporary adjustments. Work involving lifting, overhead activity, driving or repeated arm movement may be more difficult.

Can frozen shoulder come back?

It rarely returns in the same shoulder after recovery. The opposite shoulder can develop it later, but this does not happen to everyone.

## Sources


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