



PHYSIOTHERAPIST BOOKLET

FROZEN SHOULDER

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The UK FROST Trial

Rangan, et al. (2020)

What was the UK FROST Trial?

The UK FROST trial was a National Institute for Health and Care Research (NIHR) Health Technology Assessment (HTA) Programme (project ID: 13/26/01) funded multi-centre, randomised controlled trial (RCT) study, comparing three common NHS treatments for patients (over the age of 18) with a frozen shoulder.

What were the treatments?

Early structured physiotherapy & a steroid injection: Participants received 12 sessions of structured physiotherapy over 12 weeks. Treatment included an intra-articular steroid injection, manual mobilisation techniques and a home exercise programme. It also included patient education, advice on pain management and activity modification.

Manipulation under anaesthesia (MUA) & a steroid injection: The shoulder is manipulated to stretch and tear the tight capsule under a general anaesthetic. A steroid injection is also given. Participants were placed on the surgical waiting list and underwent routine pre-operative screening; surgery was usually performed within 18 weeks as a day case.

Arthroscopic capsular release (ACR) with MUA: Keyhole surgery under general anaesthetic. Tight capsule is opened through cutting/removing thickened parts using radiofrequency ablation. Participants were placed on the surgical waiting list and underwent routine pre-operative screening; surgery was usually performed within 18 weeks as a day case.

What was measured?

The study measured how effective the treatments were, patients function, quality of life, pain, recovery and any complications (e.g. infection following surgery).

What were the results?

Early structured physiotherapy & a steroid injection

- ✓ Improvement in patient-reported outcomes for pain and function
- ✓ Earlier access in the NHS, less waiting times
- ✗ More likely to require further treatment

Manipulation under anaesthesia & a steroid injection

- ✓ Improvement in patient-reported outcomes for pain and function
- ✓ More cost-effective option
- ✗ Longer NHS waiting times

Arthroscopic capsular release with MUA

- ✓ Improvement in patient-reported outcomes for pain and function
- ✓ Less likely to require further treatment
- ✗ Higher risks and costs

For more information



Frozen shoulder: which treatment should you choose?



The Lancet publication



Structured physiotherapy

Following the successful completion of the UK FROST trial, these instructions have been developed as a recommended structured physiotherapy programme. This was found to be effective at managing frozen shoulder, as well as being less invasive and easily accessible before surgical options are considered. The instructions combine established good practice, best evidence and expert consensus.

Steroid injections

Recommend, offer and provide an intra-articular steroid injection at the first opportunity unless it is contraindicated (e.g., poorly controlled diabetes, three or more injections targeting the affected shoulder in the past year) or not indicated (e.g. the shoulder is stiff but painless and non-irritable). The steroid injection should be given by the most appropriate person.

Local protocols should govern details such as the steroid and dose, whether local anaesthetic is used, the route of the injection and whether imaging guidance is used.

Structured physiotherapy

Following the UK FROST trial, up to **12 sessions** of physiotherapy is recommended. If the patient does not improve significantly within these sessions or they fail to progress over a period of **12 weeks**, onward referral may be appropriate.

Frozen shoulder can be categorised into two phases: **pain predominant** or **stiffness predominant** (see Page 6). Identifying the correct stage is an essential element for delivering appropriate physiotherapy management. The patient will likely progress through phases during the treatment.



Advice and education

Following the UK FROST trial, a standardised "**Patient Booklet**" has been developed which you can provide to your patient. The booklet explains frozen shoulder, provides advice on pain management and treatment approaches.



Home exercises

The "**Patient Booklet**" also includes home exercise suggestions. You can highlight which of the home exercises you want your patient to perform and advise on frequency and repetitions. You can also add notes and instructions.

You can update the exercises, your notes and instructions in the patient's booklet throughout their course of treatment, as appropriate.

Within the booklet, your patient will have the opportunity to record if they have completed their exercises and how they have found them.

Main phases of a frozen shoulder

There are two main phases, but these overlap a lot.

Pain predominant phase

Most people notice pain before stiffness. Pain and stiffness gradually increase but the pain is the predominant problem.

This pain is often described as a constant dull ache. At worst, there can be pain at rest and spread right down the arm. Some people describe a sharp pain on sudden movements, but say this does not last long.

The pain is often worst at night. Lying on the affected side can be painful or even impossible. Many people say this disturbs their sleep.

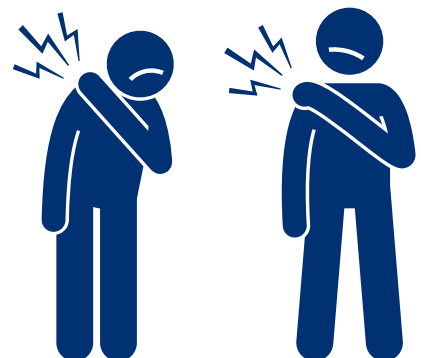
At this stage, the priority of treatment is to assist with pain management and performing gentle range of motion exercises within pain levels.

Stiffness predominant phase

Over time, the constant pain starts to improve and the shoulder becomes more stiff. This is most noticeable with rotational movements such as reaching behind the back or behind the head.

Once the pain eases people usually find it easier to manage, especially at night. People will still report pain when they over reach but is much more manageable. At this stage, people can tolerate more stretching exercises and work on increasing their range of motion.

The stiffness eases and more or less resolves over time.



Treatment recommendations





The exercises marked with **P** are recommended during the "pain predominant" phase, the exercises marked with **S** are recommended during the "stiffness predominant" phase.

Advice and education	S P
Manual shoulder mobilisation	S P
Home exercises (instruction and review)	S P
Hydrotherapy	S P
Posture correction	S P
Spinal/scapulothoracic manual therapy	S P
Supervised exercises (function-based)	S P
Supervised exercises (active/self-assisted)	S P
Superficial heat	P
Relaxation techniques	P
Acupuncture, TENS or trigger-point therapy	P
Soft-tissue techniques	S
Supervised exercises (strengthening)	S
Supervised exercises (sustained stretching)	S

The below exercises are not recommended in either the pain or stiffness predominant phase due to a lack of supporting evidence.

-  **Brace**
-  **Craniosacral therapy**
-  **Deep friction**
-  **Laser**
-  **Inferential**
-  **Shockwave therapy**
-  **Bowen therapy**
-  **Graded motor imagery**
-  **Mirror therapy**
-  **SWD**
-  **Ultrasound**

Contact Information

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Thank you for taking your time to review the Patient & Physiotherapy booklets. We would be grateful if you could please spend 5-10 mins to complete this short feedback form to help finalise the booklets.



Or go to the below link:

<https://redcap.link/UKFROSTBooklets>

If you would like any more information from the team regarding these booklets, please contact us via the below details:

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