THE BIG FREEZE

TAKING THE CHILL OUT OF A FROZEN SHOULDER

Sydney orthopaedic surgeon Dr Jonathan Herald answers your most asked questions on frozen shoulder – a frustrating and common complication of diabetes

WHAT IS FROZEN SHOULDER?

- Frozen shoulder – also called adhesive capsulitis – is a severely painful and disabling shoulder condition that disrupts sleep and causes pain that ranges from mild to breathtaking.
- It can also cause stiffness and your range of motion may be impacted, making it difficult to do everyday tasks such as putting on a bra, getting into a coat or reaching overhead or across your chest.
- For people with diabetes it can create difficulties with injecting insulin into the arm. Over time, the ability to move your shoulder is significantly reduced, so much so that it literally becomes "frozen".

What are the medical "phases" of frozen shoulder?

There are generally three phases of frozen shoulder.

First is the painful or "freezing" stage, which lasts six weeks to nine months.

Then there is the "frozen" stage, where the pain improves but there is still stiffness. This often lasts for about four to six months.

Finally, the "thawing" stage lasts up to two years, as range of movement improves. Almost all people will recover from frozen shoulder.

How is my frozen shoulder linked to diabetes?

The shoulder joint is a ball and socket joint – with the joint covered by a capsule of ligaments.

When frozen shoulder develops, the ligaments become inflamed and tight, making movement problematic.

The exact reason why it is so common in people with diabetes is not definitive, but it's thought that collagen (which holds the bones together) becomes sticky if sugar molecules attach, causing stiffness and adhesions or scarring, a process known as glycosylation.

While vision problems, nerve damage, diabetic foot, amputations and cardiovascular issues are very well documented problems for patients with diabetes, many people are not as aware that frozen shoulder is also a very common diabetes complication.

In fact, quite often it may be a warning sign of the disease.

If I already have diabetes, what is the chance of developing frozen shoulder?

The incidence of frozen shoulder is about 11-30 per cent in patients with diabetes compared with 2-10 per cent in people without diabetes, according to the *Journal of Clinical Orthopaedics and Trauma*. In patients with type 1 diabetes the rate increases to 59 per cent of patients who develop frozen shoulder, with about 73 per cent of this group developing it in both shoulders, according to a 2017 report in the *Archives of Physical Medicine and Rehabilitation*.

The good news, however, is that frozen shoulder, while debilitating, always eventually thaws, most often without surgical treatment. ➤

Frozen shoulder eventually thaws for most people

WHAT NON-SURGICAL TREATMENTS ARE AVAILABLE TO REDUCE PAIN AND SWELLING?

Certainly, as a first line of treatment, ice, heat, physiotherapy and over-the-counter pain relief such as Panadol or aspirin can help.

Sometimes, cortisone is a good idea, using ultrasound to ensure the medication gets deep into the shoulder joint. However, cortisone is not always ideal for people with diabetes due to the fact it can raise blood sugar levels, so this needs to be discussed with your diabetes educator or GP.

Brisement (hydrodilatation) is a procedure performed under radiological guidance to inject a large volume of fluid into the shoulder joint and distend the joint, stretching the capsule and providing pain relief and slightly improved motion. This seems to work in about 70 per cent of people in my practice.

After administering a local anaesthesia the radiologist introduces a mix of saline and steroids to stretch out the joint. This is followed up with extensive physical therapy to break down the adhesions or scarring that have occurred on the shoulder joint.

Some patients choose to get this done in the initial stages because the pain is so severe or stops them sleeping, which can then exacerbate depression or make them unable to do their job.

What about surgical treatments?

A minor surgical procedure that can be done as an outpatient is what's known as shoulder joint capsule release, or arthroscopic capsular release.

While the majority of people will have pain relieved by non-surgical treatments, after six months, if pain is severe, surgery can be considered.

This procedure is considered a very low risk surgery.

Outside of the standard and unlikely risk of an adverse event from general anaesthetic or blood clots (patients are monitored for these), the most common side effect is recurrent stiffness, which is usually prevented with physiotherapy.

You can generally return to work within a week or two and drive in about the same time frame.

While surgical options are often not considered by patients who "grin and bear" a milder case of frozen shoulder, it can be a godsend for those severely affected.

One study in the *Journal of Family Practice* found 94 per cent of patients experienced immediate pain relief after their surgery, the results often lasting up to 10 years.

Pain can make simple tasks such as shoelace tying a struggle. Selected TerryWhite Chemmart locations can help you better understand your symptoms when you book in for a free consultation for pain management.

What other factors increase my risk and can I prevent frozen shoulder?

Outside of diabetes, at-risk groups from frozen shoulder include:

- People who are immobilised.
- People who have had a stroke, cardiac disease or Parkinson's disease.
- People who have had heart or neck surgery.
- People who have had previous rotator cuff injury and surgery.
- Having one frozen shoulder also increases the likelihood it will occur in the other shoulder.
- Bilateral frozen shoulder can occur at the same time or after the first shoulder.

Unfortunately, you can't prevent your risk of frozen shoulder, but you can stop it from getting worse.

And you can also thaw it faster, doing what I call "active assisted exercises" (diagrams pictured, opposite) using everyday objects around the house such as a broom, coathanger and tea towel. ■

Dr Jonathan Herald is a shoulder, knee, elbow and WorkCover injury specialist in Westmead, Campbelltown and Strathfield.

WORDS JANE WORTHINGTON **PHOTOGRAPHY** GETTY IMAGES **ILLUSTRATIONS** STEPHEN SHORT

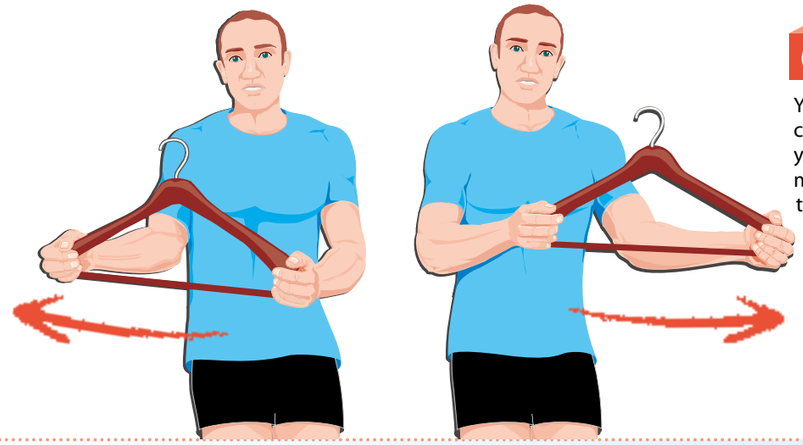
How to 'thaw' a frozen shoulder

BROOMSTICK

With the top of the broomstick handle touching the middle of the palm of your hand (on the side of the affected shoulder) simply push the frozen shoulder upwards, using the good arm to guide the bad arm. This way you are still exercising your affected limb, but not in a way that hurts.

COATHANGER

You simply hold the coathanger between your two palms and move it from side to side, using the good arm to push the bad arm.



TEA TOWEL

Place a tea towel behind your back, grabbing the bottom of the towel with your bad arm. Using your good arm pull the bad arm upwards. This creates movement in your bad shoulder without using the muscles in the bad shoulder.