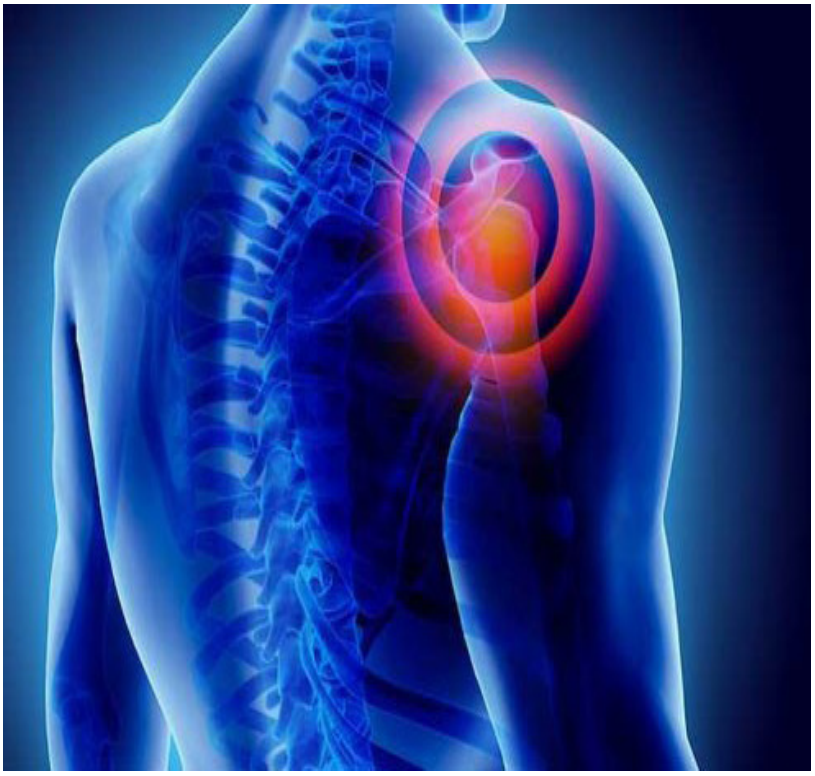
FROZEN SHOULDER



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WHAT IS FROZEN SHOULDER?

Frozen shoulder (adhesive capsulitis) is a disorder characterized by pain and loss of motion or stiffness in the shoulder. It affects about two percent of the general population. It is more common in women between the ages of 40 years to 70 years old. The causes of frozen shoulder are not fully understood. The process involves thickening and contracture of the capsule surrounding the shoulder joint. The diagnosis of frozen shoulder is based on a history of the patient's symptoms and their physical examination. Dr. Norberg will often order x-ray of the shoulder to rule out arthritis, which also causes stiffness and pain in the shoulder. MRI (magnetic resonance imaging) is rarely used to confirm the diagnosis, but may be ordered if rotator cuff tear is suspected.

RISK FACTORS/PREVENTION:

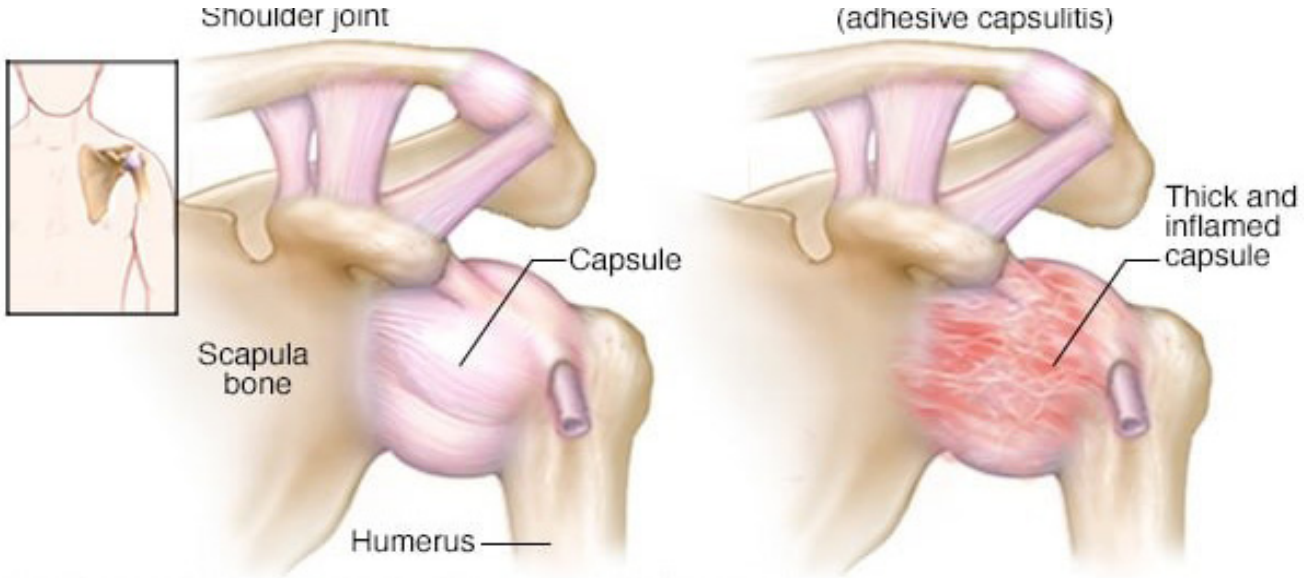
It is estimated that 5% of the general population will get frozen shoulder. It occurs more commonly in individuals:

- Diabetetic
- Women, perimenopause
- Hypothyroidism/Hyperthyroidism
- Parkinson's disease
- Cardiac disease
- Chest surgery
- After a shoulder injury (1)

FROZEN SHOULDER SIGNS/SYMPTOMS

FROZEN SHOULDER SYMPTOMS

Pain due to frozen shoulder is usually dull or aching, but can be sharp and worsened with attempted motion. The pain is usually located over the outer shoulder area and sometimes the upper arm. The hallmark of the disorder is restricted motion of stiffness in the shoulder. Both active motion (when the patient moves their own shoulder) and passive motion (when someone else moves the shoulder for the patient) are restricted.

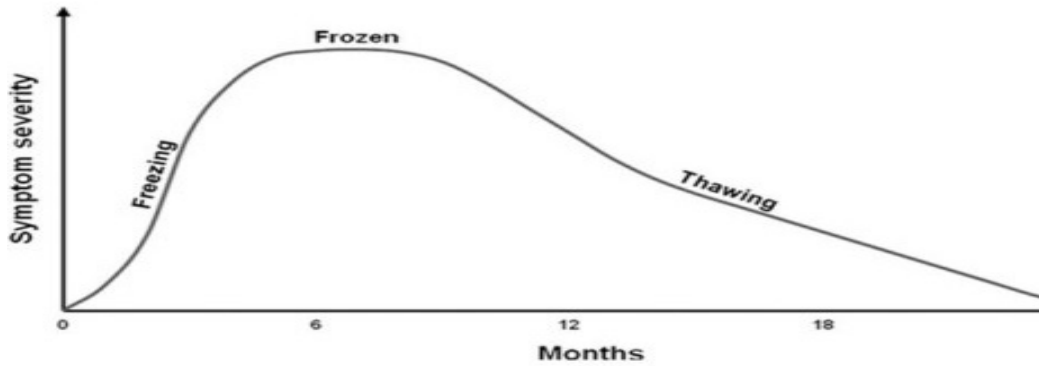


FROZEN SHOULDER COURSE

Some physicians have described the normal course of a frozen shoulder as having three stages:

- Stage one: "Freezing" stage: patient develops a slow onset of pain. As the pain worsens, the shoulder loses motion. This stage may last from six weeks to nine months.
- Stage two: "Frozen" stage: patient will have gradual improvement in their pain, but the stiffness remains. This stage generally lasts four to nine months.
- Stage three: "Thawing" stage shoulder mmotion slowly returns toward normal. This stage generally lasts 5-26 months.

A typical frozen shoulder will run its course over 18-24 months. Most people will have little or no permanent loss of motion, however patients with diabetes generally have a longer course and pooer outcome.



TREATMENT OPTIONS

Treatment is aimed at pain control and restoration of motion. The first goal is pain control. This can be achieved with anti-inflammatory medications. Ibuprofen or Aleve are examples of over-the-counter anti-inflammatory medications, which can be taken by mouth. Often, Dr. Norberg will offer a corticosteroid injection. This procedure is done under ultrasound and can be done in the office. This shoulder injection can reduce the amount of pain, especially if the patient is having difficulty sleeping. Narcotic medications are best avoided.

To restore motion, physical therapy is often ordered. Two to four visits with a physical therapist are generally recommended to institute an independent home exercise (stretching) program. Therapy includes stretching exercises for the shoulder. Sometimes heat is used to help decrease pain. Long-term or ongoing therapy visits are usually not helpful. Continued independent exercises for range of motion helps to decrease symptoms and improve function.

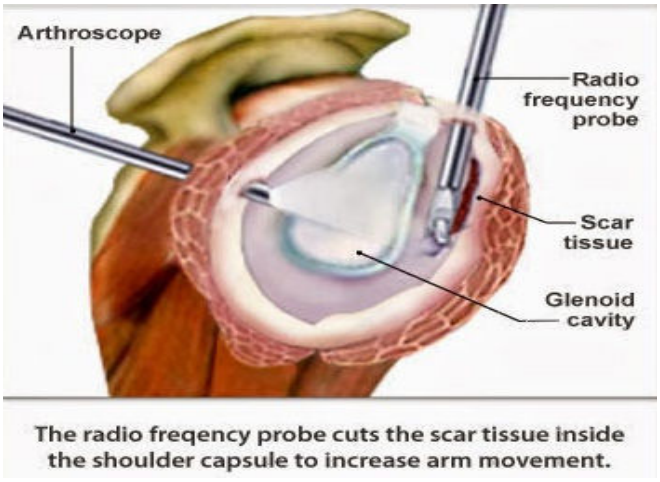
Acetaminophen can also be helpful in managing pain and can be used in combination with anti-inflammatories (see pain relief).

HYDROPLASTY

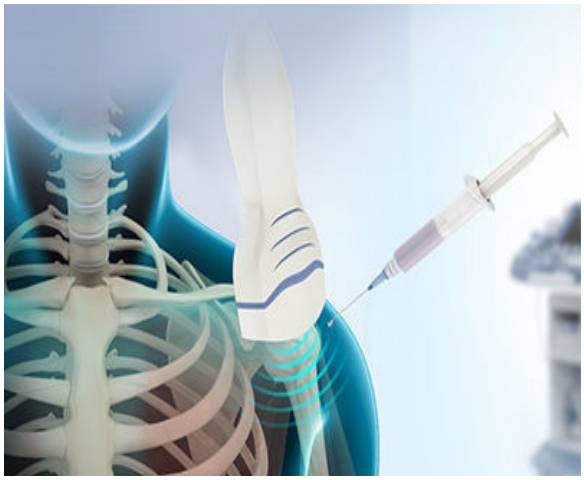
Another option for treatment is hydroplasty procedure. A hydroplasty consists of a corticosteroid and anesthetic (numbing) injection, followed by a saline injection into the shoulder joint. The amount of saline used for the injection is much greater than the typical volume in the shoulder joint. The purpose of the injection is to stretch out the joint capsule, and in some cases "pop" or rupture the joint capsule.

The procedure is performed by Dr. Norberg at our Edina office on a Monday. Following the injection, range-of-motion exercises are started immediately with a physical therapist. The hydroplasty injection must be scheduled on a Monday. The patient will then attend physical therapy every day (Monday through Friday) that week and the following week. The physical therapist will then adjust the therapy frequency depending on the patient's progress. A hydroplasty is done to increase motion and decrease pain early on, and potentially avoid the long 18-24 month course the disease takes naturally.

There is limited published data studying the effectiveness of hydroplasty procedure, so we do not have statistics on patient outcomes at this time. However, some of our physical therapists and physicians at Twin Cities Orthopedics have reported many successful patient outcomes. This treatment option is less invasive than surgery, so we typically recommend trying this prior to proceeding with surgery, or in patients who would like to attempt to shorten the course of their frozen shoulder (1).



The radio freqency probe cuts the scar tissue inside the shoulder capsule to increase arm movement.



ARTHROSCOPIC CAPSULAR RELEASE

Surgery is rarely required for frozen shoulder, because most patients will do well with time and therapy alone. In the rare cases in which surgery is indicated, the procedure is an arthroscopy or "scope" with careful release or cutting of the capsule. After the capsule is released, the shoulder is then stretched out or "manipulated" while the patient is under anesthesia. The patient will then go to physical therapy several times a week for the first few weeks after surgery.

Manipulation under Anesthesia had been a standard of treatment, but has much higher risks of joint damage, cuff tears and fractures.

CAPSULAR STRETCHES

When you stretch, you are going to feel some discomfort. Stretch to a position that is toleratble to hold for 5 seconds. Repeat 5 times. Do this 3-5 times a day. There should be no pain when you are done stretching.

PAIN RELIEF:

- You may take NSAIDs, such as Advil (ibuprofen) or Aleve (naproxen). Do not take these medications if on blood thinners (warfarin, lovenox), have history of reflux disease, or have another contraindication.
- You may take Acetaminophen (Tylenol). Do not exceed 4,000 mg in 24 hours. You may take Tylenol in combination with anti-inflammatories.
- Narcotics are not recommended for the treatment of frozen shoulder and should be avoided.
- Ice may be helpful to help decrease pain, swelling and inflammation. Many patient utilize ice after performing their daily stretches.
- Heat can also be helpful. Heat is often used in the form of a warm shower/placing a heating pad on the shoulder prior to performing daily stretches.
- As previously mentioned, a cortisone injection may be considered. The injection may help with pain, but will not restore range of motion. A combination of ice and heat may be used.

FREQUENTLY ASKED QUESTIONS:

How long does frozen shoulder last?

A typical frozen shoulder will run its course over 18-24 months. However, patients with diabetes generally have a longer course, in some cases twice as long as a patient without diabetes.

Are there any long-term complications after having frozen shoulder?

Fortunately, most patients with frozen shoulder are able to regain nearly normal motion and full function with time.

Can I get frozen shoulder again?

Typically, getting frozen shoulder again is quite uncommon. There is some reseach that may demonstarte people who have had frozen shoulder may develop it in the other shoulder in the future. But, this is rarely seen.

Do I need an MRI for frozen shoulder?

MRI is rarely used to confirm diagnosis. It may be ordered if a rotator cuff tear is suspected. Occasionally, a MRA (MRI with a dye injection) is useful to rule out other problems, but these imaging studies are not considered diagnostic.

Do I need surgery?

The majority of patients can rehabilitate on their own with a series of gentle stretches and time. In rare cases, surgery can be considered.

REFERENCES

Patel R, Urits I, Wolf J, Murthy A, Cornett E, Jones M, Ngo A, Manchikanti L, Kaye A, Viswanath O. A Comprhnesnsive Update of Adhesive Capsulitis and Minimally Invasive Treatment Options. Psychopharmacology Bulletin. 2020.