Frozen Shoulder

All You Need to Know About It
Adhesive capsulitis is considered fibrosis of the shoulder (*glenohumeral*) joint capsule, with a chronic inflammatory response.

As a patient, you will generally experience pain, limited range of motion, and disability lasting anywhere from 1 to 24 months.
The “frozen shoulder” diagnosis, originally thought to be \textit{periarthritis}, has been used for many years in describing shoulder pain and limited motion.

Studies and surgical examination of patients with this condition concluded that frozen shoulder was not \textit{periarthritis} but the thickening and contraction of a capsule which becomes adherent to the humeral head, or \textit{adhesive capsulitis}.

Patients typically describe onset of shoulder pain followed by loss of motion.
Common Limitations in Range of Motion:

- External Rotation
- Abduction
- Forward Flexion

Which Limitation Do You Have?
Types of Frozen Shoulder

*Idiopathic ("primary") and Secondary Adhesive Capsulitis*
Idiopathic ("primary") Adhesive Capsulitis

This form occurs spontaneously without a specific trigger. Primary Adhesive Capsulitis results from a chronic inflammatory response which can actually be an abnormal response from the immune system. The primary “frozen shoulder” can happen spontaneously with no apparent external cause or trauma. Generally, the onset and progression of your symptoms are very gradual. Your symptoms may progress so slowly that you may not even seek medical attention until you experience severe pain and loss of range of motion. This type of frozen shoulder can occur in both shoulders but rarely at the same time.

The likelihood of developing it in both shoulders reaches up to 40-50% of cases.
PRIMARY ADHESIVE CAPSULITIS OCCURS MOST FREQUENTLY IN PATIENTS WITH:

• Diabetes

• Thyroid dysfunction

• Autoimmune-related conditions

• Repetitive shoulder strain injury, also known as overuse syndrome

• Chronic inflammatory arthritis
  Recent chest or breast surgery

• Cerebrovascular accident (CVA)

• Cardiovascular disease
Secondary Adhesive Capsulitis

This form may occur if you had a severe shoulder injury or surgery. It may be associated with other conditions that prolong recovery and limit outcomes. An example is a fracture-dislocation in the shoulder joint after a fall.

The resulting immobilization of the shoulder after a trauma can cause “frozen shoulder.”

The secondary “frozen shoulder” can also happen if you’ve had a shoulder surgery and/or if the operation resulted in severe complications.

Examples are open or arthroscopic shoulder surgery, including rotator cuff repair and shoulder replacement surgery.
**FROZEN SHOULDER RISK FACTORS:**

**Gender:**
- Women are more prone to the development of “frozen shoulder,” especially in their perimenopause phase.
- Around 70% of “frozen shoulder” patients are women; however, males with “frozen shoulder” are at greater risk for longer recovery and greater disability.

**Age:**
- People between 40 and 59 years old are at a higher risk.
- It is estimated that 84% of people with frozen shoulder belong to this age group.

**Genetics:**
- According to recent research, genetics may play a role in the development of “frozen shoulder.”
- The prevalence of “frozen shoulder” is higher among white individuals—those with a positive family history and individuals with positive HLA-B27.
“Frozen shoulder” and Endocrine Condition

Having an endocrine condition such as diabetes or thyroid disease, both hyper and hypo, is a risk factor for “frozen shoulder.” The link between thyroid disease and “frozen shoulder” remains uncertain, but research still finds possible connections.

Diabetes is one of the most common conditions to coexist with “frozen shoulder”; 11% to 30% of people with frozen shoulder also have diabetes. Diabetic people are five times more likely to develop the syndrome compared to non-diabetics.

A 2014 study found hyperthyroid patients have 1.22 times the risk of developing adhesive capsulitis compared to the general population. Researchers speculated these findings might relate to an inflammatory process—stimulated by the production of proteins known as cytokines—characteristic of both hyperthyroidism and adhesive capsulitis. One might trigger the other, or they could occur in tandem.
“Frozen shoulder” starts with acute inflammation of the joint capsule followed by scarring and remodeling.

The typical progression of a “frozen shoulder” can be explained in three stages: painful stage, stiffness or “frozen” stage, and recovery or “thawing” stage, with the average length of symptoms lasting 30 months.
Stage 1: “Painful Phase”

In this stage, the following changes can occur:

• the shoulder starts to ache.

• the pain becomes worse as the symptoms progress.

• the active and passive range of motion becomes more restricted.

This is also called the freezing or inflammatory phase.
Stage 2: “Frozen or Stiffness Phase”

Most people progress to this stage, also called the *transitional* or *stiff phase*.

While this stage is the longest, *adhesive capsulitis* is thought to be reversible in the acute pain stage.

In addition to limited range of motion, shoulder complex muscle imbalances lead to altered shoulder motion.
Common characteristics of the *frozen* or *stiffness phase* include:

- The individual may limit the use of the arm due to pain at the end of the range of motion.

- External shoulder rotation may be very limited followed by restrictions in shoulder flexion and internal rotation.

- This can lead to muscle disuse and atrophy but shoulder pain does not necessarily worsen.
Stage 3: “Thawing Phase”

In this stage, the individual may experience the following:

• The range of motion starts to improve.

• Shoulder mobility gradually returns.

• This stage typically lasts 12 to 42 months.

In fact, studies show over 20% of people with “frozen shoulder” develop long term limitations of range of motion, lasting up to 10 years.
Diagnosing “frozen shoulder” can be tricky because its main symptoms—pain and stiffness—are common of numerous other conditions, including rotator cuff injury.

In fact, “frozen shoulder” is often misdiagnosed as a tear in the rotator cuff. Furthermore, people with “frozen shoulder” sometimes compensate for reduced shoulder joint movement by moving their shoulder blades and spine in certain ways, adding to the challenge of getting an accurate diagnosis.

There is no diagnostic test like an X-ray or MRI to confirm the syndrome. A diagnosis is made by observing the mobility of your shoulder, taking a detailed history, and performing thorough orthopedic and physical examinations.
PERFORMING A SELF-ASSESSMENT:

1. Stand in front of a mirror or have a companion observe you as you move your arm and shoulder. Watch for the quality of your shoulder motion, as well as the quantity.

2. Slowly raise both arms up in front of you and overhead. If you have a “frozen shoulder,” your painful arm may only raise to a point just past parallel with the floor. Plus, your shoulder blade will rise up unnaturally and your painful shoulder may move up towards your ear. As you lift your arm, you may also feel pain in your shoulder. Slowly lower your arm.
3. Now, slowly lift your arm out to the side, again observing the amount of motion. If your shoulder only goes up to a point that is just level with the floor and it is painful, then you may have “frozen shoulder.” Your shoulder may also move up towards your ear like in the previous motion test.

4. Finally, stand with both arms at your side and keep your elbows bent to 90 degrees. While keeping your elbows tucked into your sides, rotate your arms out. This direction of motion is called external rotation. If you have “frozen shoulder,” the painful side will not rotate as far as your non-painful arm.
Due to the complexity of causes behind this condition, seeking timely, professional help and professional detailed assessment of your condition is key to recovery.

Its connection to various autoimmune disorders and hormonal changes means detailed blood work should be performed as a part of a diagnostic work up.

Identifying these connections often helps doctors get your symptoms under control and prevent this condition from repeating itself.
Frozen shoulder may heal itself in one to three years, but it is possible for individuals to develop long-lasting symptoms.

In fact, studies show over 20% of people with “frozen shoulder” develop long-term limitations of range of motion that can last up to ten years. The primary goals of treatment are to relieve pain and restore joint function.

There are two main treatment options for this condition: “Conservative Treatment” and “Surgical Treatment”
“Conservative Treatment”

• The fastest and most successful results are seen when a patient specific, customized program is executed.

• “Frozen shoulder” often turns out to be a very complex problem with multiple underlying causes and accumulated changes.

• These must be addressed in order to stop its progression and reverse the effects.

Keep reading to find out the ReBalance Frozen Shoulder Recovery Program...
Trigenics: Trigenics is a neurological-based manual or instrument-assisted assessment and treatment system. Trigenics combines three treatments in one, which developers claim leads to an increase in neuro-summation. Trigenics is a neuro-kinetic, sensorimotor assessment, treatment and training system, which instantly relieves pain and increases strength and movement.

ReBalance FROZEN SHOULDER RECOVERY PROGRAM
Active Release Technique (ART) treats your body’s soft tissue by combining manipulation and movement. ART entails identifying, isolating, and targeting the affected area to break up scar tissue. This promotes blood flow and faster healing of injuries.

Chiropractic manipulation is the application of pressure to a person's spine or other joints. This pressure allows a chiropractor to adjust and correct alignment. Chiropractic manipulation aims to reduce pain and improve mechanical function.
Radial ESWT Shockwave Regenerate Treatment:

Radial ESWT shockwave regenerate treatment shows a tremendous benefit in treating “frozen shoulder.” It disintegrates scar tissue and calcifications, re-vascularizes joint capsule, regenerates cells, enhances the repair of muscles, tendons and ligaments, decreases pain, and stimulates collagen production.

Dry Needling Trigger Point Treatment:

Dry needling is a treatment that pushes a very thin needle through the skin to stimulate a trigger point. Dry needling may release tight muscle bands associated with trigger points, leading to decreased pain and improved function.
Multispectral Cold Laser Treatment:

Laser’s powerful anti-inflammatory and pain-relieving effects improve the quality of life in patients suffering from rotator cuff injuries. It enhances circulation and encourages injured cells and tissue to repair, helping to restore normal function.

Anti-Inflammatory Iontophoresis Treatment:

This is used to reduce inflammation seen in musculoskeletal conditions such as shoulder tendinitis, lateral and medial epicondylitis, plantar fasciitis, tendo-nitis/bursitis, rheumatoid arthritis, and enthesopathic conditions of various origins.
These treatments reduce inflammation and slow down the degeneration of joints and soft tissue. Included is vitamin C, MethylCobalamin(B-12),

PLUS: Taurine, MTE, Alanyl-L-Glutamine, Calcium, Chromium, Copper, Magnesium, Manganese, Selenium, Zinc.

In particular, vitamin C assists in producing collagen, an important protein used to make skin, cartilage, tendons, ligaments, and blood vessels. Calcium and magnesium help to support bone and muscle functions. This formula is perfect to support inflamed joints and provide your body with the necessary vitamins and minerals for joint health.
For example: the herbs *Urtica dioica* (stinging nettle), *Boswellia serrata* (Indian frankincense), *Equisetum arvense* (field horsetail), *Allium sativum* (garlic), and *Apium graveolens* (celery), thiamine (vitamin B1) have demonstrated activity at anti-inflammatory pathways and analgesic properties effective in treating acute/chronic musculoskeletal pain.
An anti-inflammatory diet may contribute pain relief and speedy recovery in some patients. Reduce your intake of simple carbohydrates, and fats such as saturated and trans fats. Increase your intake of anti-inflammatory foods such as fruits and vegetables, oily fish (which contain high levels of omega-3 fatty acids), nuts, seeds, and certain spices such as ginger and cumin.

Exercises and movement are essential for successful treatment. Customized step-by-step programs of corrective exercises help you control and advance your recovery.
Home Exercises

Part One:

Frozen Shoulder Rehabilitation Exercises

- Wand exercise: Flexion
- Wand exercise: Extension
- Wand exercise: External rotation
- Wand exercise: Shoulder abduction and adduction
- Scapular active range of motion
- Pectoralis stretch
- Biceps stretch
- Sleeper stretch
Home Exercises

Part 2:

Frozen Shoulder Exercises

- Shoulder flexion
- Shoulder extension
- Shoulder abduction
- External rotation
- Internal rotation
- Scapular range of motion
- Pectoralis stretch
- Biceps stretch
For more severe cases, invasive treatment options may be required. These may include:

Manipulations Under Anesthesia (MUA):
In this technique, a doctor moves the affected shoulder joint beyond its normal pain threshold in an individual under general anesthesia. This is done to tear the scar tissue, break up adhesions, and stretch the contracted joint capsule.

Stem cell and Platelets Rich Plasma (PRP) Regenerate Injections

Hyaluronic Acid (HA) Replacement Therapy Injections
“Surgical Treatment”

- **Shoulder Arthroscopic Capsulotomy**
  - Also known as *arthroscopic capsular release and repair*, *shoulder arthroscopic capsulotomy* is a minimally invasive procedure performed under general anesthesia.

- **Shoulder Open Capsulotomy**:
  - *Open capsulotomy*, also called *open release*, is a surgical technique in which part of the deltoid muscle is detached to perform the surgery.
Still have questions?

Take control of your health and make an appointment today.

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