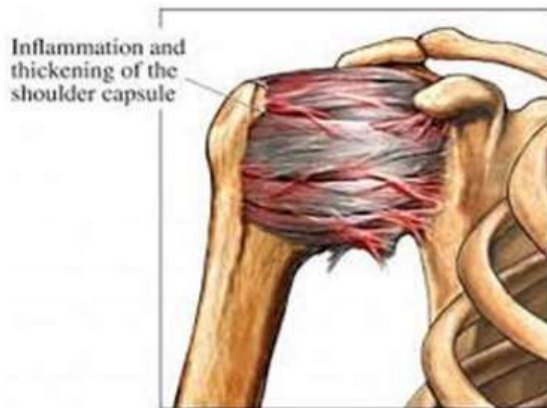


## Frozen Shoulder

Dr. Abigail Hamilton

If you are having trouble lifting your arm above your head, reaching across your body or behind your back, and have limited motion in your shoulder, it may be an early symptom of frozen shoulder. Chronic idiopathic adhesive capsulitis (Frozen Shoulder) is a condition of the shoulder with several unusual characteristics:



- Its cause is unknown.
- It rarely occurs in other joints or parts of the body.
- Range of motion is limited globally, that is all planes of motion are affected by loss of motion.
- It is usually a self-limited syndrome, when untreated, passing through three distinct phases of three to four months each: The freezing phase, the frozen phase and the thawing phase
- In most cases the shoulder and its tissues recover completely with time, although there may be some residual restriction in shoulder motion in some cases.
- It may involve the opposite shoulder, but rarely recurs in the same shoulder.
- X-rays are usually normal
- Frozen shoulder is not associated with arthritis or malignancies.
- Occurs more commonly in women than men.

- Usual onset begins between ages 40 and 65.
- Affects approximately 10% to 20% of diabetics.
- Other predisposing factors include: -A period of enforced immobility, resulting from trauma, overuse injuries or surgery. - Hyperthyroidism. - Cardiovascular disease – Clinical depression.- Parkinson 's disease.

Frozen shoulder develops slowly, and in three stages.

### **FREEZING PHASE**

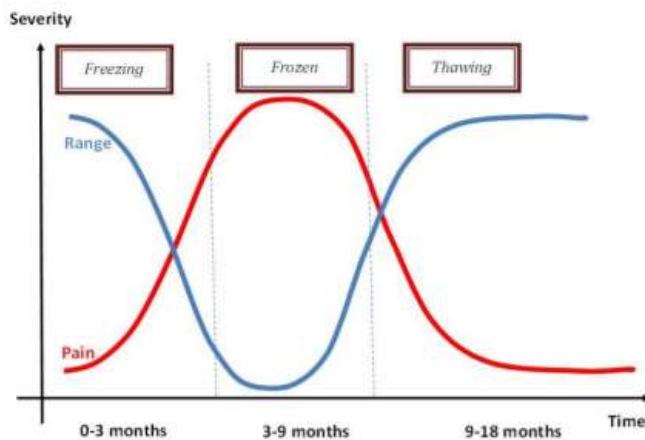
The freezing phase is a reactive phase. For patients with an acutely and globally painful shoulder, physical therapy and stretching can cause additional discomfort and stiffening. Resting from painful activities and analgesics may help with pain control.

### **FROZEN PHASE**

In the frozen phase, the shoulder becomes tighter, the pain becomes less and the patient is more comfortable. The patient is encouraged to use the shoulder actively and participate in physical therapy focusing on gentle but frequent stretching exercises.

### **THAWING PHASE**

In this phase, patients report that the motion of the shoulder is gradually returning. The pain is continuing to decrease. At this time, gentle passive stretching can be increased as long as motion improves and the stretching does not aggravate the pain.



### **DIAGNOSIS AND TREATMENT**

The doctor will test the range of motion in your arm and may ask for an X-ray to rule out any underlying condition. Treatment is geared to relieving the discomfort and restoring motion and function to the shoulder.

Treatment includes:

- Medications (such as aspirin, Aleve or ibuprofen) to reduce the, inflammation and relieve the pain.
- Range of motion exercises

- Heat or ice therapies.
- Corticosteroid (cortisone) injections.
- Range of motion exercises, such as those described below, done several times a day.

### **RANGE OF MOTION EXERCISES**

The following range of motion exercises are usually helpful to keep the shoulder moving and help prevent further tightening. When performing these exercises, do them slowly and hold the arm at the end-point of the range of motion for a few seconds. Release the stretch slowly and repeat. Do not force motion through pain. Follow the instructions for each exercise as described in the illustrations. Usually, the pendulum exercise, tabletop slides and supine neutral external rotation stretches are the easiest to do and the most pain free. After 7 to 10 days, if the shoulder is improving and the exercises do not worsen the pain, the remaining exercises can be gradually added. Add one new exercise every 5 or 6 days in the following order: wall climbing or supine passive forward flexion, internal rotation behind the back, supine external rotation with abduction, and horizontal adduction stretches. As the shoulder motion improves further, you can add the standing external rotation, external rotation in the corner and internal rotation in abduction stretches.

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### Pendulum Exercise

Bend over at the waist so that the arm falls away from the body and dangles in a relaxed way.

Use your body to initiate a circular motion. Be sure to feel that the arm is moving at the 'ball-and-socket joint' of the shoulder

Make small circles while keeping the shoulder relaxed. Do this for 2 to 3 minutes at a time.



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### Table-top Arm Slides

Sit in a chair adjacent to a smooth table top

Lift the involved arm with the uninvolved arm and place the hand and forearm on the table.

Using your body, bend forward at the waist allowing the hand and arm to slide forward. Again using the body, return to the upright position with the arm passively following.

Hold 5 to 10 seconds



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### Supine Neutral External Rotation

Lie on your back.

Keep the arm and elbow tight against your side.

Keep the elbow at a 90 degree angle.

Push the stick into the hand of the involved arm to make the arm rotate away from the body.

Hold 5 to 10 seconds



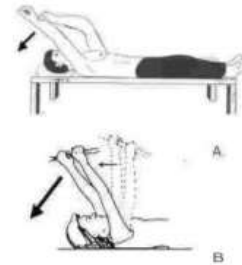
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### Supine Passive Forward Flexion

• Lie on your back

• Using a stick (figure A.), or helping with the uninvolved arm (figure B), raise the involved arm up and then backward (as if to reach overhead)

• Hold 5 to 10 seconds

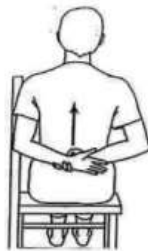


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### Internal Rotation Behind-the-Back Stretch

Sitting in a chair or standing, place the hand of the affected arm behind your back at the waistline.

Use your opposite hand to help the other hand first across to the opposite buttock, then lifting the hand higher toward the shoulder blade of the opposite shoulder. Hold 5 to 10 seconds



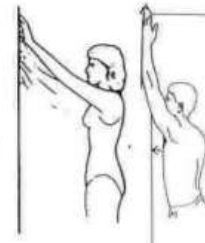
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### Wall slide

Stand facing a wall, using both hands, place the hands on the wall. Slide the hands up the wall, allowing the hands and arms to go upward.

As you are able to stretch the hand and arm higher, you should move your body closer to the wall.

Hold the stretch for 15 to 20 seconds.



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### Shoulder Shrugs and Scapular Retraction

- Shrug shoulders upward as illustrated in figure 1.
- Pinch shoulder blades backward and together, as illustrated in figure 2.
- Do 10 repetitions



figure 1

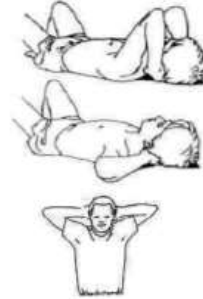


figure 2

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### Supine External Rotation with Abduction

Lie on your back. Assisting with your uninjured arm, place your hands behind your head as shown in the top illustration. Slowly lower your elbows to stretch the shoulders toward the surface you are lying on. Hold 5 to 10 seconds



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### Horizontal Adduction Stretch

- Lying on your back, hold the elbow of the affected arm with your opposite hand.
- Gently stretch the elbow toward the opposite shoulder.
- Later, this stretch can be done standing.
- Hold 5 to 10 seconds.



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### Standing Neutral External Rotation

Hold a door handle or frame with the hand of the involved arm. While keeping the involved arm firmly against your side and the elbow at a right" (90 degree) angle, Rotate your body away from the door to produce outward rotation at the shoulder. Hold 5 to 10 seconds



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### External Rotation in Corner

Standing facing a corner, position the arms as illustrated with the elbows at shoulder level.

Lean your body gently forward toward the corner until a stretch is felt.

Hold this position gently for 15 to 20 seconds



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### Internal Rotation in Abduction

Lie on your side with the arm positioned as shown.

Keeping the elbow at a right angle, rotate the arm as ~~if to~~ touch the thumb to the table.

Apply a gentle stretch with the opposite arm. Hold 10 to 15 seconds.



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