

Exercises for Frozen Shoulder

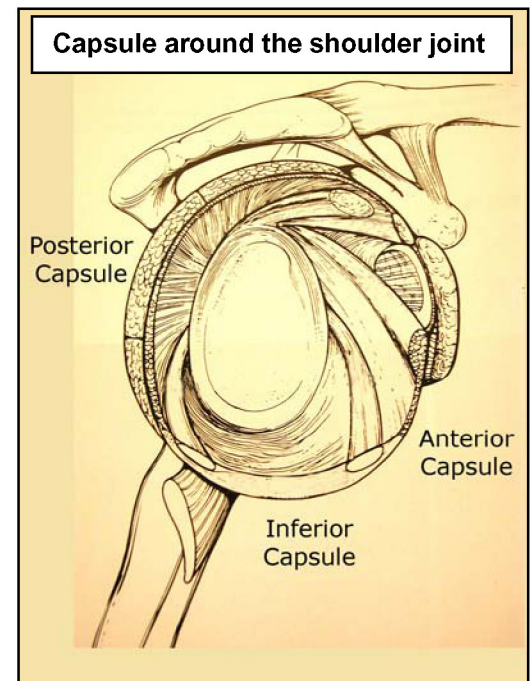
Samir Patel, MD

GENERAL INFORMATION

- **What causes shoulder stiffness?**
 - Injury (Postraumatic): sprain, fracture, rotator cuff tear, dislocation
 - Surgery (Postoperative): rotator cuff repair, instability repair, replacement
 - Idiopathic: cause unknown, usually women in their 50's
 - Diabetes
- **Why are stiff shoulders painful?**
 - Inflammation: thickening and scar formation in the capsule around the shoulder joint cause a "capsulitis" or irritation of the joint lining
 - Edema: swelling in the tissues around the joint acts like a glue that increases friction in the tissues
 - Abnormal mechanics: different parts of the shoulder capsule tighten at different rates. When one part of the capsule gets tighter than the opposite side (i.e. when the back gets tighter than the front) the humeral head (ball) is pushed upward into the acromion bone. This upward pressure causes abrasion of the rotator cuff and corresponding bursitis.

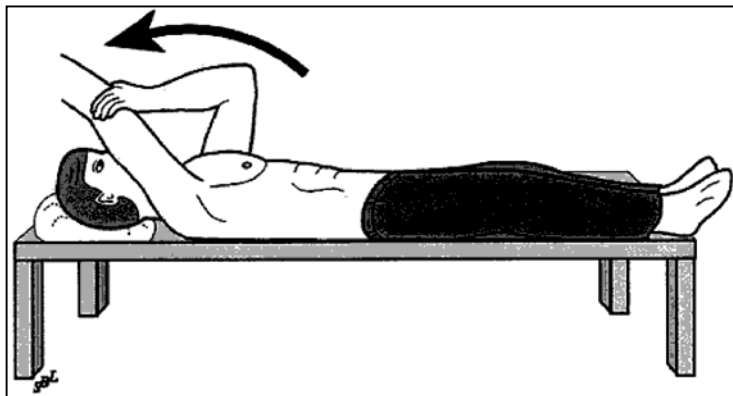
PRINCIPLES OF STRETCHING

- **Quadrants**
 - Each stretch is designed to improve the flexibility of a specific region of the shoulder capsule and shoulder girdle
 - Proper performance of the stretching program should ensure balanced shoulder flexibility
- **Frequency**
 - Each stretch should be performed 3-5 times during a session of exercises
 - Stretching sessions should be performed 3 times per day to prevent scar tissue from reforming between sessions.
 - If too much time is allowed between sessions, the shoulder will tighten back up, resulting in little progress
- **Duration**
 - When the limit of a stretch is reached, it should be held for 15-20 seconds
 - Remember to relax and breathe as the stretch is held
 - Do not bounce at the end range, rather apply persistent gentle pressure during the count
 - Try to push a little farther with each repetition
- **Exertion**
 - At the beginning of a stretching program, the shoulder may initially ache more as a result of the exercises. This should not cause concern and you should continue to work through the discomfort, which should subside with continued efforts
 - If stretching results in moderate to severe pain that lasts for greater than 15 minutes following the program, you should back off on the exertion

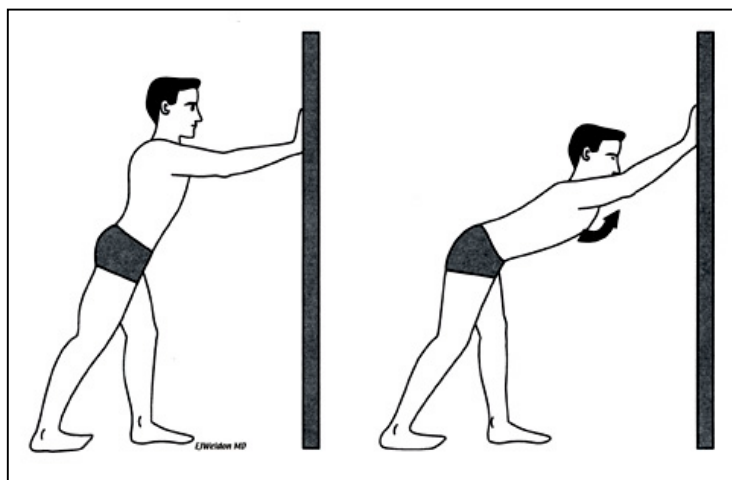


FORWARD ELEVATION

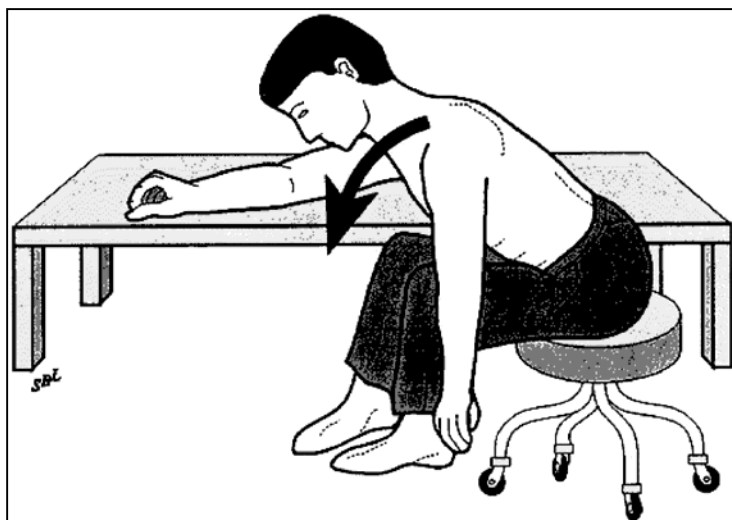
Stretches inferior and anterior-inferior capsule



- Lie down on a flat surface
- Use your good arm to grasp the arm of your stiff shoulder at the level of the elbow
- Raise the stiff arm above your head
- Apply pressure with your good arm to stretch your stiff shoulder back toward your head
- Hold for 15-20 seconds
- Repeat 3-5 times



- Place the hand of your stiff shoulder against the wall at or above shoulder height
- Lean forward with your body to stretch the arm above your head
- Hold for 15-20 seconds with firm pressure
- Repeat 3-5 times

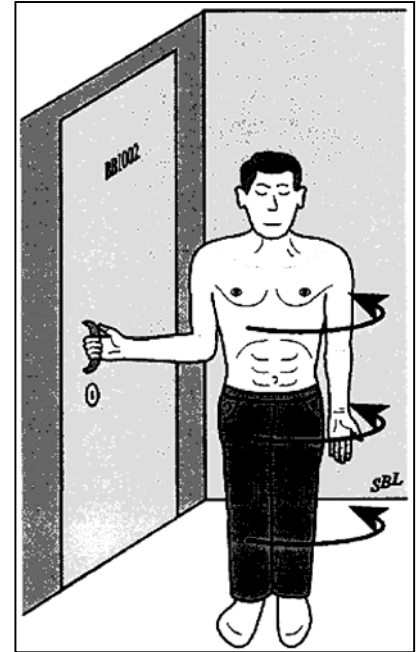


- Place the arm of your stiff shoulder on a table or counter at or slightly below shoulder height while sitting in a chair or on a stool
- Slide your arm along the table while leaning forward to stretch it above your head
- Hold for 15-20 seconds with firm pressure
- Repeat 3-5 times

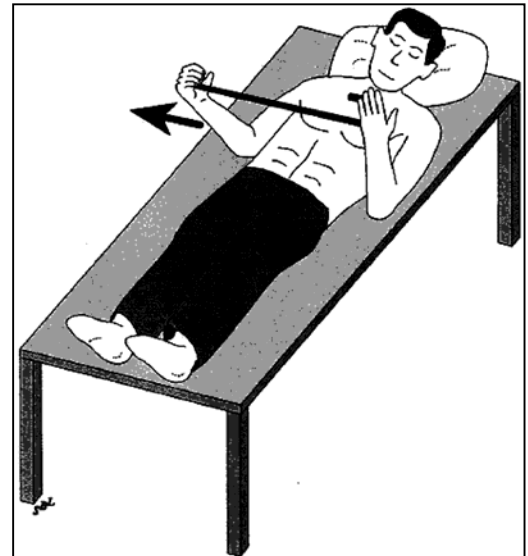
External Rotation at the Side

Stretches anterior and anterior-superior capsule

- With your stiff arm at your side and your elbow bent 90°, stabilize the arm either by holding a door handle placing your hand against the door frame
- Turn your body away from the door so that your stiff arm rotates out to the side
- Keep your elbow tucked in against your side and do not let your elbow extend during this exercise
- Hold for 15-20 seconds
- Repeat 3-5 times



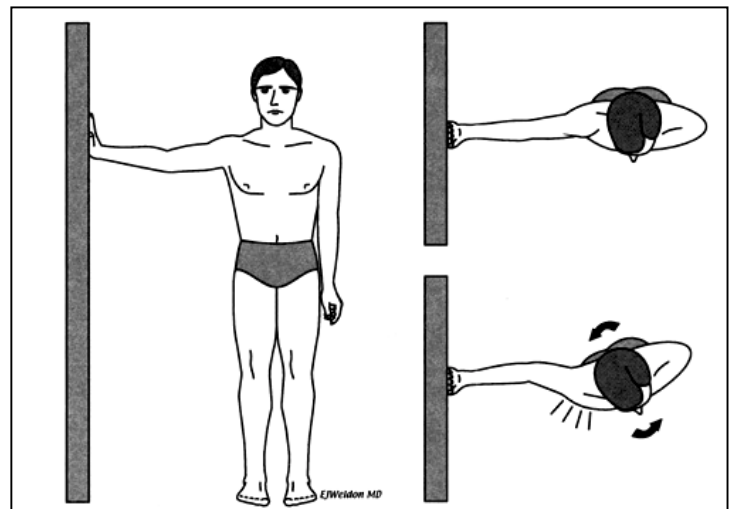
- Lie down on a flat surface
- Use your good arm to push the arm of your stiff shoulder out to the side using a stick, pole or cane
- Hold for 15-20 seconds
- Repeat 3-5 times



External Rotation at Shoulder Height

Stretches anterior and anterior-inferior capsule

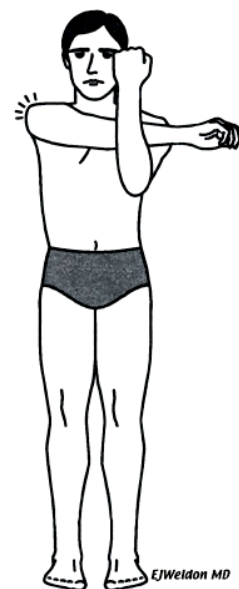
- Support the hand of your stiff shoulder against a wall at shoulder height
- Turn your body away from the wall so your arm rotates out to the side
- Hold for 15-20 seconds
- Repeat 3-5 times



Cross-Body Adduction

Stretches the posterior capsule

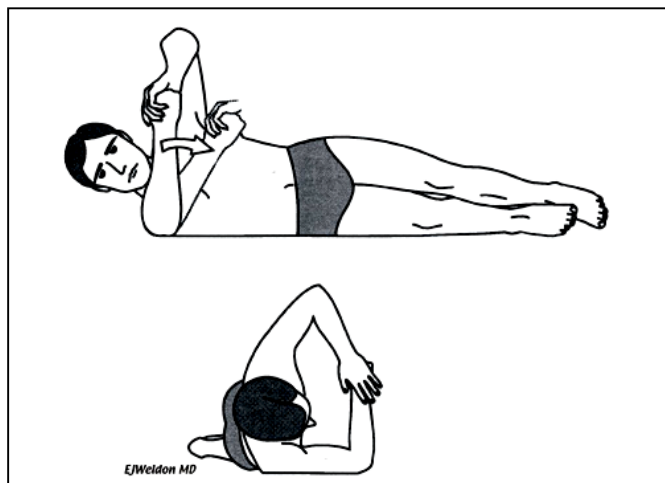
- With your thumb pointed down and your elbow straight, pull you're the arm of your stiff shoulder across your chest
- Use your good arm to pull at or above the level of your elbow
- Perform this stretch at three different levels
 - Slightly below shoulder height
 - At shoulder height
 - Slightly above shoulder height
- Hold for 15-20 seconds with firm pressure
- Repeat 3-5 times



Side-Lying Internal Rotation

Stretches the posterior and posterior-inferior capsule

- Lie on a flat surface on your side with the stiff shoulder side down, the arm in front of you with the elbow bent 90° and the hand pointing up
- Use your good arm to lever down on the forearm of your stiff shoulder (push your hand toward the ground)
- Hold for 15-20 seconds with firm pressure
- Repeat 3-5 times



Roll-Over Internal Rotation

Stretches the mid-posterior capsule

- Lie on a flat surface on your side with the stiff shoulder side down. Bring the in front of you but angled slightly down toward the chest
- Roll forward about 30° onto the affected arm
- Use your good arm to lever down on the forearm of your stiff shoulder (push your hand toward the ground/table)
- Hold for 15-20 seconds with firm pressure
- Repeat 3-5 times



Internal Rotation Doorway Stretch

Stretches the posterior capsule

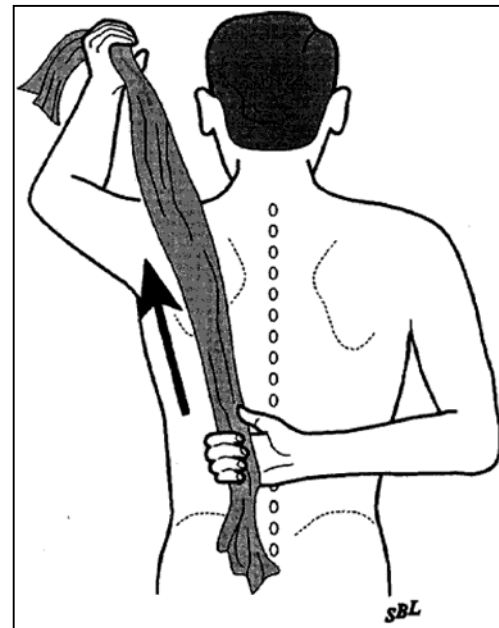
- Bring your shoulder into a horizontal position out to your side (abduction) and flex your elbow 90°
- Place your elbow against the edge of a doorway
- Lead forward and downwards with your body
- Hold for 15-20 seconds
- Repeat 3-5 times



Internal Rotation at the Side

Stretches the posterior and posterior-superior capsule

- Place the arm of your stiff shoulder behind your back
- Using a towel or a stick in your good arm, pull the arm of your stiff shoulder up your back
- Hold for 15-20 seconds
- Repeat 3-5 times



Activities

Some patients have found that hanging from a bar or other object above shoulder height provides a good shoulder stretch.

This allows a controlled force to be applied as you can use your leg muscles to gauge the amount of weight that pulls downward on your arm as your shoulder is stretched. As with other stretching exercises, this should be performed in a slow and controlled manner to allow the muscles to relax and tissues to fatigue. Remember to breathe regularly during this exercise.