

Frozen Shoulder Syndrome

Rehabilitation Using the Resistance Chair



General Information

Frozen shoulder is a condition where the shoulder joint (glenohumeral joint) gradually becomes stiff, resulting in loss of movement (range of motion). It may involve other restrictions in motion in the surrounding muscles and shoulder blade (scapula) movements. This joint stiffening is a reversible process in almost all patients (1). The amount of improvement in shoulder joint motion is often related to the amount of time the shoulder has been “frozen” and the underlying cause. Injury to the shoulder can result in inflammation with swelling that in time can potentially reduce full shoulder movement. Fibrous tissue bands or adhesions can also develop if the shoulder has been immobile for an extended period limiting recovery. Frozen shoulder can result from prolonged immobilization, such as wearing a shoulder sling or an extended period of disuse. People with other shoulder problems may restrict their shoulder motion because of pain, which can lead to or contribute to frozen shoulder syndrome. It can also occur without any identified cause in some situations. People who are not engaged in a regular exercise program may be at higher risk for developing frozen shoulder. Proper exercise and stretching is the key to regaining function in a frozen shoulder and in preventing further loss of motion.

Symptoms

People with a frozen shoulder typically complain of significant stiffness and the inability to perform some daily tasks such as dressing and overhead lifting. Pain with certain movements or activities also occurs.. Restoring this loss of motion and reducing pain is the goal of a specific frozen shoulder rehabilitation program.

Diagnosis

The diagnosis of frozen shoulder includes symptoms primarily involving loss of range of motion in the shoulder and stiffness. A healthcare professional will perform a focused history and exam to identify this condition. Xray, MRI, or other studies may be performed for further evaluation if necessary but are usually not needed.

Management

Frozen shoulder responds very well to exercise and stretching therapies (2). Treatment may also involve nonsteroidal anti-inflammatory drugs (such as Ibuprofen) and therapy modalities such as heat. People may also use heat to help relieve some of this stiffness, especially prior to exercises. In some situations that do not respond to exercise rehabilitation, injection therapy with steroids may be considered.

The Resistance Chair Solution

The treatment of frozen shoulder involves a rehabilitation therapy program to gradually stretch the tissues surrounding the shoulder joint thereby restoring motion and function. These exercises and stretches, such as the weighted pendulum stretch, is the optimal initial treatment approach. The primary goal of the Resistance Chair Solution for frozen shoulder is to restore shoulder range of motion and function to restore maximal quality of life and independence.

References:

1. Anderson, BC. Office Orthopedics for Primary Care: Diagnosis and Treatment, 3rd ed, WB Saunders Company, Philadelphia 2006.
2. Pearsall, Albert W; Speer, Kevin P. Frozen shoulder syndrome: diagnostic and treatment strategies in the primary care setting. *Medicine & Science in Sports & Exercise*. 30 (4) Supplement 1:33-39, April 1998.

Warm Up

Perform each of the following stretches 10 times.



Alternate reaching arms overhead.



Holding arms at shoulder level, brings hands together in front and apart to sides.



Circle shoulders forward and backwards.



With palms facing forward inhale as you raise arms out to the side, continuing overhead in an arc. Exhale as you lower arms to your sides.

Scapular Adduction Exercise

Goal: To improve posture and alignment of shoulder joint.

1. Sit in chair with back up against posture support
2. Maintain upright posture with chest lifted and eyes looking straight ahead while you squeeze shoulders back and together against sides of posture support. (Figure A)
3. Hold position for 5 seconds. Repeat 12 times.

Maintain this upright posture with chest lifted and back straight throughout rest of the exercises.

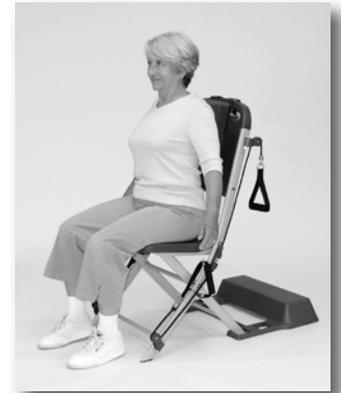


Figure A

Maintain this upright posture with chest lifted and back straight throughout rest of the exercises.

Forward Flexion Stretch

1. Sit upright in chair with back against posture support.
 2. Grasp overhead pulleys with arms in front.
 3. Pull downward with right arm, allowing left arm to stretch overhead as tolerated (Figure A). Hold for at least 5 seconds at end of range.
 4. Repeat on opposite side.
- Continue alternating sides for at least 12 repetitions per side, increasing range of motion as tolerated



Figure A

Abduction Stretch

1. Sit upright in chair with back against posture support.
2. Grasp overhead pulleys with arms out to sides.
3. Pull downward with right arm, allowing left arm to stretch overhead as tolerated. (Figure A). Hold for at least 5 seconds at end of range.
4. Repeat on opposite side.
5. Continue alternating sides for at least 12 repetitions per side, increasing range of motion as tolerated.



Figure A

Additional suggested exercises:

Internal Rotation Stretch

1. Sit upright towards front of chair.
2. Place involved hand behind your back. With uninvolved hand, grasp wrist of the involved arm and slide hands up your back. Hold at least 5 seconds. (Figure A).
3. Repeat 10 times. Hold position longer if tolerable.

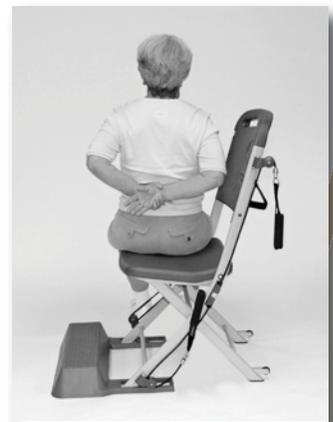


Figure A

External Rotation Stretch

1. Remove posture support. Sit upright in chair with back supported.
2. With affected arm supported against the side of your body, elbow bent to 90 degrees, push involved hand out to side with uninvolved hand. Hold at least 5 seconds. (Figure A).
3. Repeat 10 times. Hold position longer if tolerable.



Figure A

Pendulum with Weighted Ball

Goal: To stretch shoulder.

1. Grasp weighted ball in left hand.
2. Place right knee on chair, holding seat of chair with right hand for support.
3. Bend forward at waist, bending left knee.
4. Hang left arm towards floor, relaxing all muscles. Let the weight of the ball traction the arm. (Figure A).
5. Gently move the ball in a small circular motion clockwise then counterwise. (Figure B).
6. Repeat 10 times in each direction.



Figure A

CAUTION: Before beginning any exercise program please consult a healthcare provider for appropriate exercise instructions and safety precautions.

FROZEN SHOULDER PROFESSIONAL NOTES

1. These exercises are for Stage II-III Adhesive Capsulitis. Use caution during Stage I as forcing ROM during this stage can exacerbate the condition.
2. Recommend cardiovascular warm up prior to performing these ROM activities.
3. Make sure patient maintains upright posture with the support of The Posture Support in order to minimize subacromial impingement caused by downward rotated scapulas.
4. External rotation required for proper scapulohumeral rhythm above 90 degrees elevation. If patient has severely limited range of motion, consider supine supported external rotation stretches prior to progressing with overhead range of motion.