

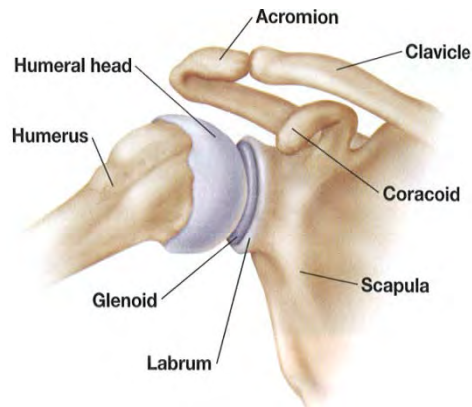
Frozen Shoulder

The shoulder is your body's most flexible joint. It is designed to let the arm move in almost any direction. But this flexibility has a price, making the joint prone to injury. The shoulder is made up of bones, muscles, ligaments, and tendons. They work together so you can comfortably reach, swing, lift, and throw a ball. Learning about the parts of the shoulder will help you understand your shoulder problem.

Anatomy

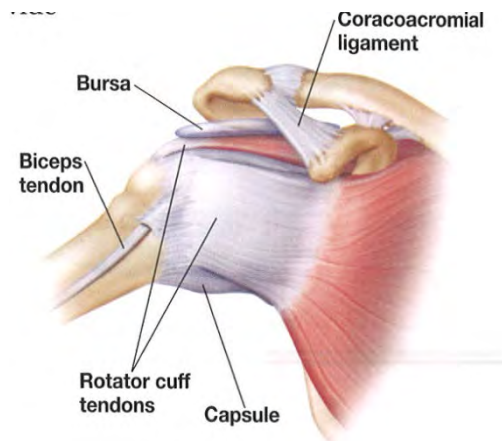
Bones provide the foundation of the shoulder joint. The bones fit together in a way that allows the arm to move freely.

- The humeral head is the ball at the top of the humerus (arm bone).
- The glenoid is the shallow socket located on the scapula (shoulder blade).
- The labrum is a ring of cartilage around the rim of the glenoid. Important ligaments attach to the labrum and connect to the humerus. The labrum and these ligaments provide stability to the shoulder joint.
- The coracoid and acromion are two other parts of the scapula. Muscles attach on these structures.
- The clavicle is the collar bone. The clavicle connects to the acromion, forming the acromioclavicular (AC) joint.



Soft tissues include muscles, tendons, and ligaments. These connect the shoulder bones together, provide stability, and movement to the joint.

- The capsule is a sheet of tough fibers that encloses the joint. The ligaments are thickened parts of the capsule that connect the humerus to the labrum. The labrum is firmly attached to the rim of the glenoid. The capsule, ligaments, and labrum provide most of the stability to the shoulder joint.
- The Rotator Cuff is a group of muscles & tendons that lie deep in the shoulder. It consists of 4 muscle/tendon units: supraspinatus, infraspinatus, subscapularis, and teres minor. The Rotator Cuff connects the arm bone (humerus) and the shoulder blade (scapula) and is critical for enabling normal shoulder function.
- The bursa is a sac that cushions the rotator cuff
- The coracoacromial ligament connects the acromion to the coracoid.



Frozen Shoulder

With frozen shoulder the capsule thickens and contracts (tightens). This may be due to inflammation and formation of scar tissue in the joint. Over time, this may result in pain, stiffness, and loss of motion in the shoulder. Loosening of a frozen shoulder can take a year or longer. Treatment helps speed up the healing, so you can hopefully regain full range of motion sooner and reduce pain.

Normal Shoulder



Frozen Shoulder



Stages of Frozen Shoulder

Frozen shoulder typically occurs in stages. The length of each stage varies for each person, but is often months or longer.

- During the painful stage, you may have shoulder pain that rapidly worsens. The pain may increase when you move your arm or sleep at night.
- During the frozen stage, your shoulder may stiffen until it becomes harder to move. You may not be able to raise or rotate your arm beyond a certain point. Daily tasks, such as getting dressed may be difficult.
- During the thawing stage, pain and stiffness in your shoulder should gradually improve. In time, you will likely regain normal or close to normal movement of your shoulder.



Risk Factors for Frozen shoulder

Certain things can make frozen shoulder more likely to develop. These may include:

- Being a woman
- Being 40 to 60 years old
- Having certain health conditions such as diabetes or thyroid disease
- Not using the shoulder for a prolonged period of time, such as after an injury or surgery.

Non-surgical treatments

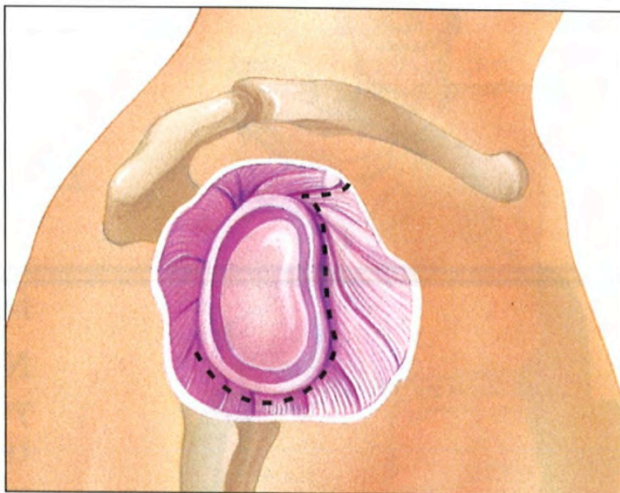
- Physical Therapy
- Anti-inflammatory Medication
- Cortisone injection

Surgical Treatment

If non-surgical treatments aren't enough to relieve your symptoms, surgery may be needed. Typically a manipulation under anesthesia and an arthroscopic lysis of adhesions are performed.

Manipulation under anesthesia: The surgeon carefully raises your arm and moves your shoulder. This releases the capsule and nearby tissue.

Lysis of Adhesions: Arthroscopy allows a surgeon to see and work inside your shoulder joint through small incisions. A long, thin, lighted instrument called an arthroscope is used. During surgery, the arthroscope sends live video images from inside the joint to a monitor. Using these images, the doctor can diagnose and treat your shoulder problem. Because arthroscopy uses such small incisions, recovery is often shorter and less painful than recovery after open surgery. During this procedure the shortened tissues are released and when possible the inflamed tissue is removed.



Arthroscopic capsular release may free the capsule and ligaments (area shown above with dotted line).

Risks

There are risks with any surgery. Risks and complications are rare, but include: infection, damage to nerves or blood vessels, blood clots, pulmonary embolism, medical complications, swelling, stiffness, continuing shoulder problems, etc.

Before Surgery

You need to prepare ahead of time for shoulder surgery.

- Stop taking anti-inflammatory medication, including aspirin, before the surgery, if directed.
- Tell your doctor about any prescription or over-the-counter medications, herbs, or supplements that you take. Ask whether you should stop taking these before surgery.
- Don't eat or drink anything after midnight the night before surgery. This includes water.
- Arrange for a friend or family member to give you a ride home.

After Surgery

After your arthroscopic surgery, you will recover in the hospital or surgery center for a few hours. When you are able to go home, you will be instructed how to relieve any pain and how to care for your shoulder as it heals. To help with healing, a program of physical therapy (PT) will be prescribed.

In the Recovery Room

After surgery you will be taken to a recovery area to rest. You'll have a bandage to protect your incisions. Nurses will give you medications to help relieve the pain. Cool packs or a cooling unit may be used to reduce swelling and pain in your shoulder.

Going Home

Before leaving the hospital or surgery center, be sure to know how to care for your shoulder at home. Ask any questions you may have. Also know who to contact if you have questions later. When you are ready to leave the hospital or surgery center, an adult family member or friend must drive you home.

Post-op Instructions

- Pain medication will be prescribed; it will be available for pick up at the pharmacy listed on your surgical letter. Take the pain medication as directed. Do not wait for the pain to get bad before you take it.
- You should attend physical therapy the same day as your surgery, but after the surgery is complete. You should continue to go to physical therapy everyday for the next couple of weeks.
- You are able to shower 2 days after surgery. Let the soap and water run over the incisions; do not scrub them. Dry the incisions with a clean towel or gauze pad. Cover the incisions with band-aids. Do not apply ointment, of any kind, to your incisions.
- Bruising and swelling of the shoulder, arm, and hand are common. Bleeding from the bone and other soft tissues deep to the skin cause this. Bruising and swelling usually resolve in the first few weeks following surgery.
- **It is illegal to operate a motor vehicle while using narcotic pain medication**
- Follow up one week after surgery to have your stitches removed and to discuss your surgical procedure.
- Do not use a sling and try to use the surgical arm for simple tasks like eating, washing your hair, etc.

You should contact your physician if you are having shortness of breath, redness around your incisions, discharge from your incisions, or a fever greater than 101.5°

STRETCHES



Internal Rotation (Turning In)

1. While seated, move the arm on your frozen side toward the middle of your back. The palm of your hand should face out.
2. Cup your other hand under the hand that's behind your back. Gently push your cupped hand upward until you feel the stretch in the shoulder.

Note: Keep your back straight. It's OK if your hand can't reach the middle of your back. Instead, start the stretch with your hand as close as you can get it to the middle of your back.



External Rotation (Turning Out)

1. Stand in a doorway. Grasp the doorjamb with the hand on the frozen side. Your arm should be bent.
2. With the other hand, hold the elbow on the frozen side firmly against your body.
3. Standing in the same spot, rotate your body away from the doorjamb. Stop when you feel the stretch in the shoulder.

Note: Keep your arms as still as you can. Over time, rotate your body a little more to enhance the stretch. But be careful not to twist your back.



Elevation (Reaching Up)

1. Raise the hand on the frozen side as high as you can. Then grasp a stable surface, such as a bookcase or a doorframe, with the same hand.
2. Keeping your arm straight, lower your body by bending your knees. Stop when you feel the stretch in the shoulder.

Note: Your back should remain straight. To enhance the stretch over time, try to bend your knees lower. Or, raise your arm higher at the start of the stretch.



Adduction (Reaching Across)

1. Put the hand from the frozen side on the opposite shoulder. Your elbow should point away from your body. Try to raise your elbow as close to shoulder height as you can.
2. With your other hand, push the raised elbow toward the opposite shoulder. Avoid turning your head. Stop when you feel the stretch in the painful shoulder.

Note: Be sure to push your elbow across your chest, not up toward your chin. Over time, try to push your elbow farther across your chest to enhance the stretch.