

## Frozen Shoulder

The shoulder joint is a complex joint allowing more range of motion than any other joint in the body. It is characterized by a smoothness that allows motion in multiple planes.

The shoulder joint is also surrounded by a supple capsule that can become tight if the shoulder joint loses its lubrication. If the joint capsule becomes tight a cycle of tightness leading to non-use, and non-use leading to more shoulder tightness may easily begin.

### What is a frozen shoulder?

Frozen shoulder, or adhesive capsulitis, is a condition that causes loss of motion within the shoulder joint. It is characterized by the development of adhesions or restrictions within the capsule that surrounds the shoulder joint.

### What is a joint capsule?

The joint capsule covers the entire "ball and socket" of the shoulder. The capsule normally stretches as we move our arm especially as the ball portion of the shoulder moves around within the joint.

### What are the symptoms of a frozen shoulder?

People usually experience pain as the first symptom-particularly at night or when the shoulder is moved close to the end of its range of motion. A loss of active range of motion follows the initial symptom of pain. Certain combined movements such as reaching for a seatbelt overhead or reaching for a back pocket or bra strap tend to be most limited.

### What causes frozen shoulder?

Primary frozen shoulder is defined as being an idiopathic condition-occurring for no known reason. It is most common in the 40-60 year old age group and is twice as common in women as in men. Usually only one shoulder is affected; however, in about one third of cases motion may be limited in both arms.

The idiopathic frozen shoulder tends to follow a classic pattern consisting of three stages:

1. **Freezing**- This stage is characterized by intense pain even at rest with range of motion limitations occurring within 2 to 3 weeks. This acute stage may last 10 to 36 weeks.
2. **Frozen**- This stage is characterized by pain only with movement. Significant range of motion deficits are present. Muscle atrophy or weakness may occur during this time. This second stage lasts 4 to 12 months.
3. **Thawing**- This final stage is characterized by no pain, but significant restrictions are present due to adhesions within the shoulder capsule. This stage lasts 2 to 24 months or longer.

Secondary frozen shoulder may also occur due to an underlying condition or problem such as rheumatoid arthritis, osteoarthritis, trauma, or immobilization especially after surgery.

**How is frozen shoulder treated?**

Treatment of frozen shoulder consists primarily of pain relief and physical therapy. Your physician may recommend an injection to decrease inflammation within the shoulder. Physical therapy is often the most effective tool in the conservative treatment of frozen shoulder. Physical therapy involves manual therapy in order to stretch the joint capsule and mobilize the shoulder joint. Exercises will also be very important during physical therapy treatments and especially at home. These exercises will first address the tightness of the shoulder, but may also include strengthening as well. Certain pain relieving modalities such as hot/cold packs, ultrasound, and electrical stimulation may be useful as well.