

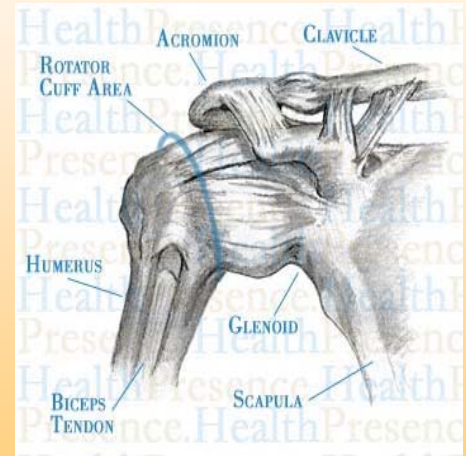
# THE SHOULDER

## Anatomy of the Shoulder

February 2007

The shoulder region encompasses 5 separate articulations - The **sternoclavicular (SC) joint, acromioclavicular (AC) joint, coracoclavicular, glenohumeral (GH) joint, and the scapulothoracic joint**. The articulation referred specifically as the shoulder is the glenohumeral joint, whereas the other articulations are referred to as the shoulder girdle.

Having these 5 different articulation makes the shoulder the joint with the greatest range of motion in the body. It is also, unfortunately, the joint that is most unstable making it susceptible to dislocation injuries. Tendonitis, bursitis and frozen shoulder are some of the other conditions/injuries that can occur in the shoulder. If an injury occurs in the shoulder the effects of the injury will differ depending on what tissue is injured.



### Frozen Shoulder

Frozen shoulder, also known as **adhesive capsulitis**, is a condition in which the capsule surrounding the shoulder becomes contracted and thickens. It often follows a shoulder injury or period of immobility of the shoulder.

Frozen shoulder is said to have 3 stages:

**Stage 1**—The freezing stage can be quick or can stretch out over as many as 9 months. This is the stage where pain is developing and movement is slowly decreasing.

**Stage 2** - The frozen stage usually sees improvements in pain but the movement is still very limited. This stage usually lasts 4 to 12 months.

**Stage 3** - The thawing stage involves decreasing pain. Motion and function gradually return. This phase can last years.

Preventing frozen shoulder can be done by maintaining movement of the shoulder after an injury or period of immobility.

**Massage therapy, active release technique (ART), Interferential current therapy, acupuncture and chiropractic treatment** are great tools that can be used to prevent and treat frozen shoulder.

#### Inside This Issue

<u>Tendonitis</u>	<u>1</u>
<u>Frozen Shoulder</u>	<u>1</u>
<u>Dislocations</u>	<u>2</u>
<u>Bursitis</u>	<u>2</u>

[Back to Health Wellness Center](#)

# Tendinitis and Bursitis

**Tendonitis** is inflammation of a tendon often caused by repetitive strain. There are a few tendons in the shoulder area that are susceptible to tendonitis. The **supraspinatus** muscle involved in abduction (lifting your arm to the side) is susceptible to tendonitis, and the **biceps brachii**, which flexes your arm at the elbow, is another common location to get tendonitis. When someone has tendonitis it is painful to contract or stretch the affected muscle and it is painful to touch the inflamed tendon.

Tendonitis can be treated using the active release technique, massage therapy, acupuncture, chiropractic and the Interferential current therapy. It is also important to follow any homecare your healthcare professional might give you

such as hydrotherapy and exercises to ensure the fastest recovery possible.

**Bursa** are fluid filled sacs usually located between tendons and bones. The function of bursa is to reduce the friction between the surrounding tissue. Bursitis is inflammation of the bursa, usually secondary to repetitive strain injuries such as tendonitis. Occasionally it can be caused by direct trauma to the bursa.

Bursitis in the shoulder causes pain with activity and sometimes at rest. The shoulder joint is less mobile than usual and the bursa is painful when compressed. If it's been present for a while (chronic stage) the pain is felt with activity and when the bursa is compressed.

Icing is used to bring the inflammation in the bursa down and to reduce the pain in the acute stage. In the chronic stage heat may be used on compensating muscles or a contrast hydrotherapy (heat/cold) could be used to increase circulation, bringing nutrients to the injured tissues.

Massage therapy, Interferential current therapy, acupuncture, chiropractic treatments and Active Release Techniques can be used to treat bursitis. These therapies can reduce your pain, speed healing and get your shoulder moving well again. These therapies would also treat the underlying conditions such as tendonitis to prevent recurrences of the bursitis.

## Instability and Dislocations

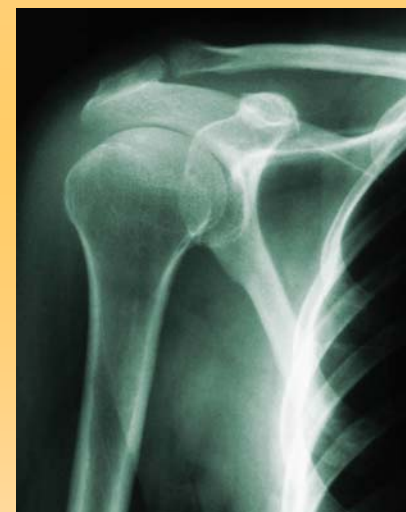
Because of the anatomy of the shoulder it can be an unstable joint in some people. It is the most commonly dislocated joint in the human body. The glenohumeral joint gets a lot of its support from ligaments and muscles. Because of this, people with laxity in their ligaments or weakness in their muscles are more susceptible to dislocation injuries.

A dislocation occurs when the articulating surfaces of a joint become separated. When a dislocation occurs the surrounding tissues can be partially or completely torn. This can include the joint capsule, tendons, muscles, cartilage, and ligaments. Shoulder dislocations are almost always caused by trauma to the shoulder. The shoulder is most unstable in the armpit area. Because of this most dislocations happen when the head of the humerus is forced down, away from the glenoid fossa it usually sits in. It is also unstable on the posterior (back) and anterior (front) of the joint and therefore it can also dislocate in those directions.

Dislocations stretch the tissues that are supposed to support the joint leaving the person more susceptible to recurring dislocations. This joint instability can also cause apprehension to move the shoulder in the directions that are unstable.

After a dislocation the joint is reduced, or put back in place. The joint then needs to be supported for a few weeks. When enough healing has occurred pain free range of motion and strengthening exercises are given to prevent frozen shoulder and to improve the stability of the joint. This homecare is very important in preventing further dislocations.

Massage therapy and chiropractic care are both very helpful therapies in speeding healing and reducing the pain and discomfort caused by dislocations. Interferential current therapy and acupuncture can be used to reduce the pain of a dislocation.



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