

# Shoulder & Arm Pain

The shoulder which is functioning normally is a marvel of motion and integration of muscular activity.

Usually when a person considers the shoulder, he thinks of it as a relatively simple joint, made up of the upper arm bone joining into the shoulder socket. In reality, the structure is very complex. We must consider many factors when looking at the shoulder as a functioning unit.

The shoulder socket is a part of the scapula (shoulder blade). In the front, the scapula gains attachment to the breast bone by way of the collar bone. In the back, the scapula is held up to the back chest wall by muscles and has no direct joint attachment. As the arm goes through its range of motion, there is literally a symphony of muscular action taking place. As certain muscles contract to raise the arm, other muscles must relax at precisely the correct time to allow freedom of motion and smoothness of movement. There are over 20 muscles directly or indirectly involved in shoulder action. This causes a need for very complex integration of the activity of these muscles.

Almost all shoulder problems correlate - to a greater or lesser degree - with improper muscle activity. Because of the very important role the muscles play in normal shoulder function, they should always be examined whenever there is a shoulder involvement. The muscles are tested for strength and length, as well as integration of activity with one another.

Muscles usually become weak or over strong from some form of injury. Specific ligament damage, joint damage, or muscle damage is most often observed after an injury; however, the muscular imbalance which results as a secondary problem of the injury is frequently not observed by the attending physician. If muscular imbalance is left untreated, it leaves a shoulder which continues to manifest symptoms long after the injury should have healed. It also leaves an imbalance present for easy recurrence of problems or constant strain in the shoulder.

## Common Shoulder Problems

**Slipped bicipital tendon.** A tendon is the fibrous band that attaches a muscle to bone. The biceps muscle, which is the large muscle in the front of the arm, attaches by way of a tendon up to the scapula. This tendon lays in a groove; it can slip out of the groove by injury. This injury usually develops as a result of a sudden jar while the biceps brachii muscle is contracted, holding something up. A typical example is a workman carrying the end of a plank when his helper accidentally drops the other end of the plank, causing a severe jarring to his arm. Treatment for this condition is usually to replace the tendon into the groove, and then immobilizing the shoulder to aid the healing process.

**Acromioclavicular injury.** The joint between the collar bone and the shoulder blade is often injured, especially in athletic endeavors. This injury is frequently treated by manipulation of the joint, designed in such a manner as to not cause any strain to the already injured ligaments. Sometimes immobilization is needed after treatment; if the ligament injury is extremely severe, surgery may be indicated.

**Ligament injury.** Trauma to the shoulder very often causes ligament injury. The ligaments are the fibrous bands that hold bone to bone; they are a component of almost all joints. Here again, immobilization is frequently needed for the healing process to take place. Whenever ligaments, tendons, or bones are injured, there may be an indication for specific nutritional supplementation to aid the healing process.

**Dislocation.** Dislocation means the arm portion of the shoulder joint has come completely out of the socket; severe injury is usually the cause of a shoulder dislocation. Some individuals who have improper muscular and ligament function can have a shoulder that slips out of place with certain shoulder motions, when no injury is involved. This condition can frequently be corrected by a chiropractor who examines the muscular balance and integration of muscle activity and makes the indicated corrections.

**Frozen Shoulder.** Inability to raise the arm past a certain point is a relatively common involvement of the shoulder. This is often attributed to factors

such as ligament inflammation, arthritis, bursitis, etc.; however, it is not commonly the result of improper muscular function. As mentioned earlier, there is a symphony of muscular activity in every shoulder motion. Sometimes the muscles that attempt to lift the arm are incapable of doing so because the muscles that act in the opposite direction fail to relax at the appropriate time. Activity of certain muscles is necessary in the process of lifting the arm, to keep the socket from “jamming”, which impedes elevation of the arm. It is very common to observe the complete correction of a “frozen shoulder” in a matter of minutes after a chiropractic examination - even if the arm has not risen above a certain point for years. Determining the muscular coordination and strength is absolutely necessary for the successful treatment of this condition.

**Arthritis / Bursitis.** These terms refer respectively to inflammation of the joint and inflammation of the bursa (the lubricating membrane of the joint). Often either arthritis or bursitis is secondary in nature to another primary problem. Inflammation develops as a result of some irritating factor. A shoulder which is not moving in a synchronous manner becomes very irritated, and inflammatory processes develop. The synchronous movement of the shoulder joint is absolutely dependent upon harmonious activity of all of the muscles involved in shoulder activity. When the diagnosis of arthritis or bursitis is made, anti-inflammatory drugs are often given, either in tablet form or by injection directly into the shoulder structure. The injections are commonly steroids. These medications often give relief, at least temporarily; however, they do nothing to remove the reason the inflammation developed in the first place. It is much better to remove the cause and allow the symptoms to subside by themselves, without the possible harmful side effects of drugs. Any time arthritis or bursitis is present in a shoulder, the muscular strength and coordination of all the muscles involved with shoulder activity must be examined.

**Other Causes of Shoulder Problems.** Listed above are some of the more common problems directly associated with the shoulder. There are many symptoms of the shoulder involvement, such as pain or limitation of motion, where the primary problem is not in the shoulder at all. The primary cause could easily be in the neck, pelvis, feet, wrist, or internal organs. This remote

problem could cause symptoms in the shoulder by structural stress, interference with normal nerve action to the shoulder, or by referred pain.

Whenever a shoulder is involved, the total body should be examined. If there is an injury to the shoulder after the initial healing process is completed, the shoulder should be re-examined for muscular strength and harmony. This helps prevent problems in the future that may not even be associated with the original injury.