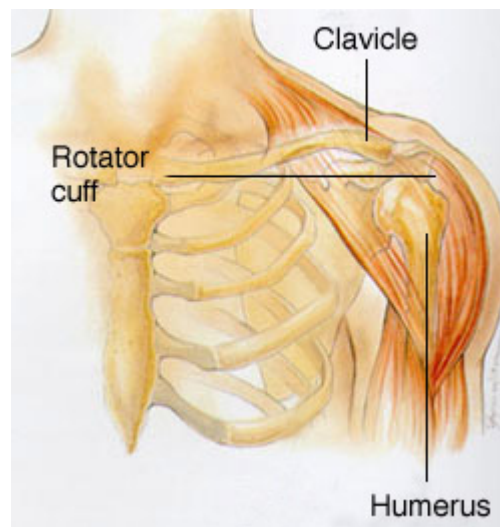


## Shoulder Pain

What most people call the shoulder is really several joints that combine with tendons and muscles to allow a wide range of motion to the arm, from scratching your back to throwing the perfect pitch. Mobility has its price, however. It may lead to increasing problems with instability or impingement of soft tissue resulting in pain. You may feel pain only when the shoulder is moved, or all of the time. The pain may be temporary and disappear in a short time, or it may continue and require medical diagnosis and treatment.

This brochure explains some of the common causes of and treatments for shoulder pain, and how you can prevent it. Your orthopaedist (orthopaedic surgeon), a specialist in musculoskeletal conditions, can give you more detailed information.



### What causes shoulder pain?

Most shoulder problems involve the soft tissues, muscles, ligaments and tendons, rather than bones. And most of these problems fall into three major categories:

- tendinitis/bursitis
- injury/instability
- arthritis

Other much more rare causes of shoulder pain are tumors, infection and nerve-related problems.

**Tendinitis**-A tendon is a cord which connects muscle to bone or other tissue. Most tendinitis is a result of the wearing process that takes place over a period of years, much like the wearing process on the sole of a shoe which eventually splits from overuse. Generally, tendinitis is one of several types:

- acute tendinitis following some overuse problem such as excessive ball throwing and other sports- or work-related activities.
- chronic tendinitis resulting from degenerative disease or repetitive wear and tear due to age.
- the splitting and tearing of tendons which may result from acute injury or degenerative changes in the tendons due to advancing age. Rotator cuff injuries are among the most common of these disorders. The rotator cuff is the arrangement of muscles and their tendons which provides shoulder motion and stability.

Sometimes, excessive use of the shoulder leads to inflammation and swelling of a bursa, a condition known as bursitis. Bursas are fluid-filled sacs located around the joints which lessen the friction caused by movement of the shoulder. Bursitis often occurs in association with rotator cuff tendinitis. Sometimes the many tissues in the shoulder become inflamed and painful, limiting the use of the shoulder. The joint may stiffen as a result, a condition called a "frozen shoulder." Fortunately, with appropriate care, this condition will resolve itself.

**Injury/Instability**-Sometimes the bones in one of the shoulder joints move (or, in an injury, are forced) out of their normal position. This condition, instability, can result in dislocation of one of the joints in the shoulder. Recurring dislocations, which may be partial or complete, cause pain and unsteadiness when you raise your arm or move it away from your body. When you lift your arm over your head, the shoulder may feel as if it is slipping out of place or an uncomfortable, unusual feeling that some people refer to as having a "dead" arm.

**Arthritis**-Shoulder pain can also result from arthritis. There are many types of arthritis, but generally it involves wear and tear changes with inflammation of the joint, causing swelling, pain and stiffness. Arthritis may be related to sports or work injuries.

Often people will avoid shoulder movements in an attempt to lessen the pain arising from these conditions. This sometimes leads to a tightening or stiffening of the soft tissue parts of the joint, resulting in a painful restriction of motion.

### **Treatment**

Treatment generally involves altering activities, rest and physical therapy to help you improve shoulder strength and flexibility. Medication may be prescribed to reduce inflammation and reduce pain. If medication is prescribed to relieve pain, it should be taken only as directed. Injections of drugs may also be used to treat pain.

Surgery may be required to resolve shoulder problems; however, 90 percent of patients with shoulder pain will respond to simple treatment methods such as altering activities, rest, exercise and medication. Certain types of shoulder problems, such as recurring dislocation and some rotator cuff tears may require surgery.

Common sense solutions such as avoiding overexertion or overdoing activities in which you normally don't participate can help to prevent shoulder pain.

### **When should you seek medical care?**

Many patients ignore temporary minimal shoulder symptoms with few bad effects. In the case of an acute injury, if the pain is intense, you should seek medical care as soon as possible. If the pain is less severe, it may be safe to wait a few days to see if time will alleviate the problem. If symptoms persist, an orthopaedist may provide timely diagnosis and treatment. Orthopaedists are specifically trained in the workings of the musculoskeletal system, including the diagnosis, treatment and prevention of problems involving muscles, bones, joints, ligaments and tendons.

## Diagnosis of shoulder pain



Determining the source of the problem in the shoulder is essential to recommending the right method of treatment. Therefore, a comprehensive examination will be required to find the causes of your shoulder pain.

The first step is a thorough medical history. Your orthopaedist may ask how and when the pain started, whether it has occurred before and how it was treated, and other questions to help determine your general health as well as the possible causes of your shoulder problem. Because many shoulder conditions are aggravated by specific activities, and relieved by specific activities, a medical history can be a valuable tool in finding the source of and treating your pain.

Next, your orthopaedist will perform a physical examination, which may include looking for physical abnormalities, swelling, deformity or muscle weakness, or feeling for tender areas, and observing the range of shoulder motion, how far and in which direction you can move your arm.

X-ray studies may be required so your orthopaedist can look closely at the bones and joints in your shoulder. Other diagnostic techniques that may be used include CT scan (computerized tomography), which provides a more detailed view of the shoulder area; electrical studies such as the EMG (electromyogram), which can indicate nerve damage; or an arthrogram, an X-ray study in which dye is injected into the shoulder to allow the orthopaedist to better see the joint and its surrounding muscles and tendons. MRI (Magnetic Resonance Imaging) and ultrasound are other valuable diagnostic tools for orthopaedists, because they provide images of the soft tissues without using radiation. Arthroscopy is a surgical procedure in which the orthopaedist looks inside the joint with a lighted telescope. It is sometimes used to diagnose causes of shoulder pain. Arthroscopy may indicate soft tissue injuries that are not apparent in the physical examination, X-rays and other tests.



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Your orthopaedist is a medical doctor with extensive training in the diagnosis and nonsurgical and surgical treatment of the musculoskeletal system, including bones, joints, ligaments, tendons, muscles and nerves.

This brochure has been prepared by the American Academy of Orthopaedic Surgeons and is intended to contain information on the subject from recognized authorities. However, it does not represent official policy of the Academy and its text should not be construed as excluding other acceptable viewpoints.

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