Impingement Of Your Shoulder



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How Your Shoulder Works

The shoulder is the most mobile and flexible joint in the human body. Offering the greatest flexibility of any part of your body, it enables your arms to move in a variety of ways and to perform many diverse tasks.

The Bones

The human shoulder is made up of three bones.

One of the most recognizable is the *scapula*, also known as the shoulder blade and is seen as a small "wing" on either side of your upper back. It's top portion, the acromion, attaches with ligaments to the *clavicle*. The clavicle is also known as the collarbone and helps to stabilize the shoulder blade. A shallow socket, referred to as the glenoid, holds the ball-like head of the humerus in place. The *humerus* is also known as the upper arm bone.



Supporting Tissue

Ligaments, muscles and tendons support the bones of your shoulder. Ligaments connect the ones of the shoulder, and tendons joint he bones to surrounding muscles. The *biceps tendon* attaches the biceps muscle to the shoulder and helps to stabilize the joint.

All of these components of your shoulder, along with the muscles of your upper body, work together to manage the stress your shoulder receives as you extend, flex, lift and throw.



Shoulder Impingement

The rotator cuff muscles are important in shoulder movements and stability. Your arm is kept in your shoulder socket by your rotator cuff. The rotator cuff is a network of four muscles that come together as tendons to form a covering around the head of the humerus. It attaches the humerus to the shoulder blade and helps to lift and rotate your arm. Because the rotator cuff is so active, problems can sometimes occur. As your raise your arm, the narrow space within the shoulder joint squeees together. Over the course of time, this can irritate a rotator cuff muscle or tendon, which then swells and narrows the space even more. The result is pinching or impingement of the shoulder.

This booklet is not intended as a substitute for professional medical care.

The rotator cuff is a common source of pain in the shoulder. Pain can be the result of:

- **Tendinitis.** The rotator cuff tendons can be irritated or damaged.
- **Bursitis.** The bursa can become inflamed and swell with more fluid causing pain.
- **Impingement.** When you raise your arm to shoulder height, the space between the acromion and rotator cuff narrows. The acromion can rub against (or "impinge" on) the tendon and the bursa, causing irritation and pain.

Shoulder impingement syndrome develops slowly beginning with minor pain in your muscle tendons. This irritation sends more blood to the area, which in turn causes an inflammation known as tendinitis. At this point, proper rest can often eliminate this problem. But, repeated shoulder activity can trigger brusitis. Bursitis occurs when the bursa overfills with fluid and causes additional swelling. Without proper time to heal, this can then lead to full impingement, which is most noticeable when you raise your arm above your head.

Non-surgical Treatment

The goal of treatment is to reduce pain and restore function. In most cases, initial treatment is nonsurgical. Although nonsurgical treatment may take several weeks to months, many patients experience a gradual improvement and return to function

Rest. Your doctor may suggest rest and activity modification, such as avoiding overhead activities.

Ice. Applying ice on a swollen area helps reduce inflammation nd helps to relieve the pain. Apply an ice pack for 15 minutes at a time, 2 to 3 times per day. As a convenience alternative, you can use a bag of frozen peas, which will conform easily to your shoulder's shape.

Heat. Heat application helps to soothe your sore muscles, though it doesn't actually reduce inflammtation. Apply heat several times a day for 10 or 15 minutes at a time.

Non-steroidal anti-inflammatory medicines. Drugs like ibuprofen and naproxen reduce pain and swelling. Since any anti-inflammatory medications can be harsh on your stomach, thye should be taken with a full meal.

Steroid injection. If rest, medications, and physical therapy do not relieve your pain, an injection of a local anesthetic and a cortisone preparation may be helpful. Cortisone is a very effective anti-inflammatory medicine and can help relieve pain.

Surgical Treatment

When nonsurgical treatment does not relieve pain, your doctor may recommend surgery. The goal of surgery is to create more space for the rotator cuff. These procedures can be performed using either an arthroscopic or open technique. In *arthroscopy*, thin surgical instruments are inserted into two or three small puncture wounds around your shoulder. Your doctor examines your shoulder through a fiberoptic scope connected to a television camera. He or she guides the small instruments using a video monitor, and removes bone and soft tissue. In most cases, the front edge of the acromion is removed along with some of the bursal tissue. In *open surgery*, your doctor will make a small incision in the front of your shoulder. This allows your doctor to see the acromion and rotator cuff directly.

Preparing For Your Surgery

Your hospital or surgery center will contact you with specific details about your appointment. You will likely be asked to arrive at the hospital an hour or two before your surgery. Do not eat or drink anything after midnight the night before your surgery.

Before surgery begins, you will receive either a general anesthetic that will put you to sleep or a local anesthetic that will numb your shoulder. The anesthesiologist will help you decide which method would be best for you.

After Your Surgery

Beginning Your Recovery

Following your procedure, your arm may be placed in a sling for a short period of time. This allows for early healing. You may be given pain medication at the hospital, as well as a prescription to help alleviate any later discomfort. The nurse who has been monitoring your blood pressure and pulse will then arrange for your release once you are clear-headed and alert. Before surgery, arrange to have a friend or member of your family drive you home after you leave the hospital.

Home Care

You can usually leave the hospital within a day of your surgery, although your arm will be in a sling for several weeks. Your home recovery will consist of applying ice, taking your medication and giving your shoulder the rest that it needs. After several weeks, your doctor will remove the sling to begin exercise and use of the arm. Your doctor will provide a rehabilitation program based on your needs and the findings at surgery. This will include exercises to regain range of motion of the shoulder and strength of the arm. It typically takes 2 to 4 months to achieve complete relief of pain, but it may take up to a year.