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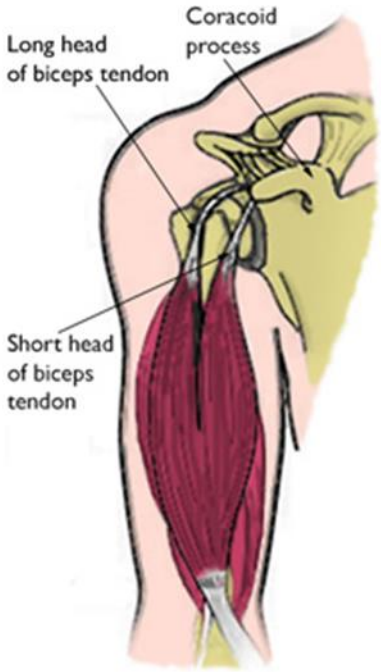
Tendonitis of the Long Head of the Biceps

Long head of biceps tendonitis is an inflammation or irritation of the upper biceps tendon. This strong, cord-like structure connects the upper end of the biceps muscle to the bones in the shoulder.

Pain in the front of the shoulder and weakness are common symptoms of biceps tendonitis. They can often be relieved with rest and medication. In some cases, surgery is necessary to repair the tendon.

Anatomy

The biceps tendons attach the biceps muscle to the shoulder.



Your shoulder is a ball-and-socket joint made up of three bones: your upper arm bone (humerus), your shoulder blade (scapula), and your collarbone (clavicle).

The head of your upper arm bone fits into a rounded socket in your shoulder blade. This socket is called the glenoid. A combination of muscles and tendons keeps your arm centered in your shoulder socket. These tissues are called the rotator cuff. They cover the head of your upper arm bone and attach it to your shoulder blade.

The biceps muscle is in the front of your upper arm. It helps you bend your elbow and rotate your arm. It also helps keep your shoulder stable.

The biceps muscle has two tendons that attach it to bones in the shoulder. The long head attaches to the top of the shoulder socket (glenoid). The glenoid is lined with soft cartilage called the labrum. This tissue helps the head of the upper arm fit into the shoulder socket.

The short head of the biceps tendon attaches to a bump on the shoulder blade called the coracoid process.

Description

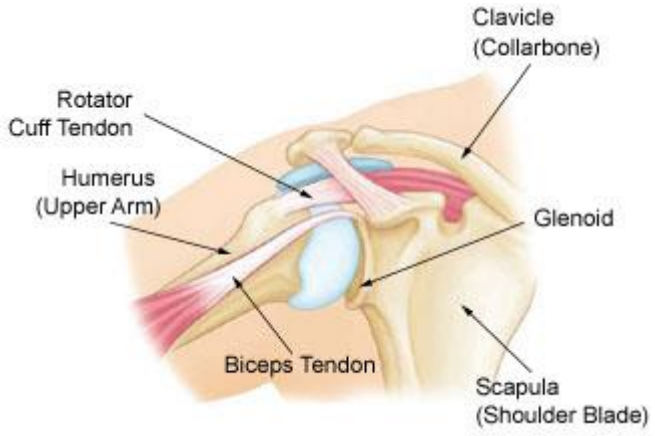
Biceps tendonitis is inflammation of the long head of the biceps tendon.

Biceps tendonitis usually occurs along with other shoulder problems. In most cases, there is also damage to the rotator cuff tendon. Other problems that often accompany biceps tendonitis include:

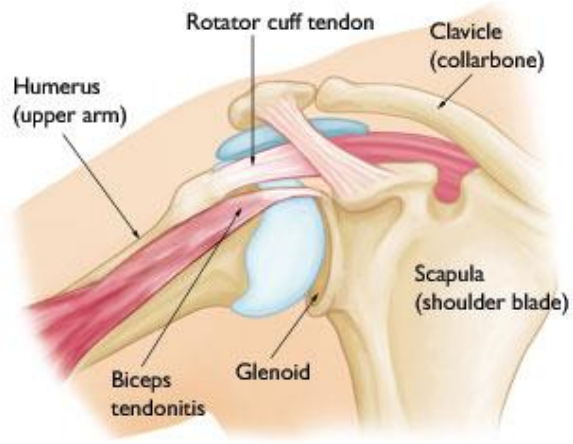
- Arthritis of the shoulder joint
- Tears in the glenoid labrum
- Chronic shoulder instability
- Shoulder impingement
- Other diseases that cause inflammation of the shoulder joint lining

In the early stages of biceps tendonitis, the tendon becomes red and swollen. As tendonitis develops, the tendon sheath (covering) can thicken. The tendon itself often thickens or grows larger.

The tendon in these late stages is often dark red in color due to the inflammation. Occasionally, the damage to the tendon can result in a tendon tear, and then deformity of the arm (a "Popeye" bulge in the upper arm).



Normal shoulder anatomy.



A complete tear of the distal biceps tendon. The tendon has pulled away from where it attached at the radial tuberosity.

Cause

In most cases, damage to the biceps tendon is due to a lifetime of overhead activities. As we age, our tendons slowly weaken with everyday wear and tear. This degeneration can be worsened by overuse — repeating the same shoulder motions again and again.

Swimming, tennis, and baseball are some sports examples of repetitive overhead activities. Many jobs and routine chores can cause overuse damage as well.

Repetitive overhead motion plays a part in other shoulder problems that occur with biceps tendonitis. Rotator cuff tears, osteoarthritis, and chronic shoulder instability are often caused by overuse.

Symptoms

- Pain or tenderness in the front of the shoulder, which worsens with overhead lifting or activity
- Pain or achiness that moves down the upper arm bone
- An occasional snapping sound or sensation in the shoulder

Doctor Examination

After discussing your symptoms and medical history, your doctor will examine your shoulder.

During the examination, your doctor will assess your shoulder for range of motion, strength, and signs of shoulder instability. In addition, he or she will perform specific physical examination tests to check the function of your biceps.

Investigations, Tests

Other tests that may help your doctor confirm your diagnosis include:

X-rays. Although they only visualize bones, x-rays may show other problems in your shoulder joint.

Magnetic resonance imaging (MRI) and ultrasound. These studies can create better images of soft tissues like the biceps tendon.

Treatment

Your orthopedic surgeon will work carefully to identify any other problems in your shoulder and treat them with your tendonitis.

Nonsurgical Treatment

Biceps tendonitis is typically first treated with simple methods.

Rest. The first step toward recovery is to avoid overhead activity.

Ice. Apply cold packs for 20 minutes at a time, several times a day, to keep swelling down. Do not apply ice directly to the skin.

Nonsteroidal anti-inflammatory medicines. Drugs like ibuprofen and naproxen reduce pain and swelling.

Steroid injections. Steroids, like cortisone, are very effective anti-inflammatory medicines. Injecting steroids into the tendon can relieve pain. Your doctor will use these cautiously. In rare circumstances, steroid injections can further weaken the already injured tendon, causing it to tear.

Physical therapy. Specific stretching and strengthening exercises will restore range of motion and strengthen your shoulder.

Surgical Treatment

If your condition does not improve with nonsurgical treatment, your doctor may suggest surgery. Surgery may also be necessary if you have other shoulder problems.

Surgery for biceps tendonitis is usually performed arthroscopically. During arthroscopy, your doctor makes small incisions around your shoulder. He or she then inserts a small camera and miniature instruments through the incisions. This allows your doctor to assess the condition of the biceps tendon as well as other structures in the shoulder.

Repair. In many cases, the biceps tendon can be repaired and strengthened where it attaches to the shoulder socket (glenoid).

Biceps tenodesis. In some cases, the damaged section of the biceps is removed, and the remaining tendon is reattached to the upper arm bone (humerus). This procedure is called a biceps tenodesis. Removing the painful part of the biceps usually resolves symptoms and restores normal function.

Depending on your situation, your surgeon may choose to do this procedure arthroscopically or through an open incision.

Tenotomy. In severe cases, the long head of the biceps tendon may be so damaged that it is not possible to repair or tenodese it. Your surgeon may simply elect to release the damaged biceps tendon from its attachment. This is called a biceps tenotomy. This option is the least invasive, but may result in a Popeye bulge in the arm.

Surgical complications. Complications are rare with these types of arthroscopic procedures. Infection, bleeding, stiffness and other problems are much less common than open surgical procedures.

Overall, complication rates are low, and complications are usually simple to correct.

Rehabilitation. After surgery, your doctor will prescribe a rehabilitation plan based on the procedures performed. You may wear a sling for a few weeks to protect the tendon repair.

You should have immediate use of your hand for daily activities — writing, using a computer, eating, or washing. Your doctor may restrict certain activities to allow the repaired tendon to heal. It is important to follow your doctor's directions after surgery to avoid damage to your repaired biceps.

Your doctor will soon start you on therapeutic exercises. Flexibility exercises will improve range of motion in your shoulder. Exercises to strengthen your shoulder will gradually be added to your rehabilitation plan.

Surgical outcome. Most patients have good results. They typically regain full range of motion and are able to move their arms without pain. People who play very high-demand overhead sports occasionally need to limit these activities after surgery.

Reference: http://orthoinfo.aaos.org/