

DISEASES & CONDITIONS

# Biceps Tendinitis

Biceps tendinitis is an inflammation or irritation of the upper biceps tendon. Also called the long head of the biceps tendon, this strong, cord-like structure connects the biceps muscle to the bones in the shoulder.

Pain in the front of the shoulder and weakness are common symptoms of biceps tendinitis. They can often be relieved with rest and medication. In severe cases, surgery may be needed to repair the tendon.

## Anatomy

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).

**Glenoid.** The head of your upper arm bone fits into the rounded socket in your shoulder blade. This socket is called the 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.

**Rotator cuff.** 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.

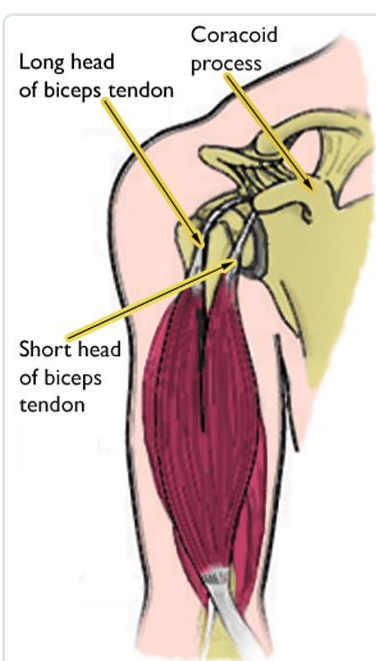
**Biceps tendons.** The biceps muscle is in the front of your upper arm. It has two tendons that attach it to bones in the shoulder. The long head attaches to the top of the shoulder socket (glenoid).

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

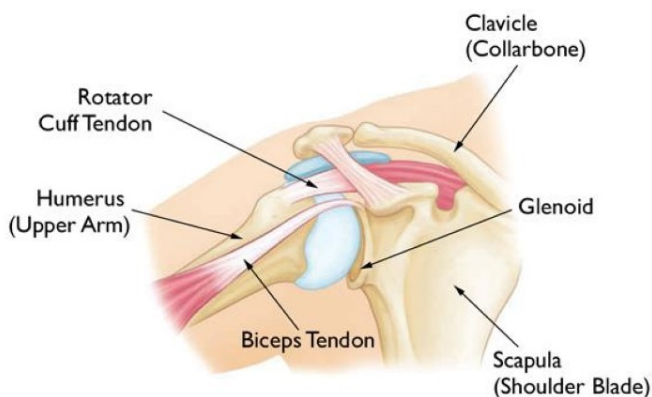
## Description

Biceps tendinitis is inflammation of the long head of the biceps tendon. In its early stages, the tendon becomes red and swollen. As tendinitis develops, the tendon sheath (covering) can thicken. The tendon itself often thickens or grows larger.

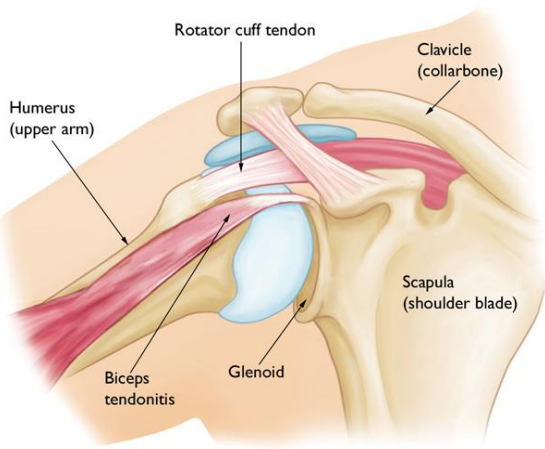
The tendon in these late stages is often dark red in color due to the inflammation. Occasionally, the damage to the tendon can result in a tendon tear, and then deformity of the arm (a "Popeye" bulge in the upper arm).



The biceps tendons attach the biceps muscle to the shoulder bone.



Normal shoulder anatomy.



Biceps tendinitis causes the tendon to become red and swollen.

Biceps tendinitis 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 tendinitis include:

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

## Cause

In most cases, damage to the biceps tendon is due to a lifetime of normal 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.

Many jobs and routine chores can cause overuse damage. Sports activities – particularly those that require repetitive overhead motion, such as swimming, tennis, and baseball – can also put people at risk for biceps tendinitis.

Repetitive overhead motion may play a part in other shoulder problems that occur with biceps tendinitis. 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

### *Physical 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.



Your doctor may press over the area where the biceps tendon attaches to the shoulder. Patients with tendinitis will have tenderness and swelling in this area.

*Reproduced from JF Sarwark, ed: Essentials of Musculoskeletal Care, ed 4. Rosemont, IL, American Academy of Orthopaedic Surgeons, 2010.*

### *Imaging 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 images can show soft tissues like the biceps tendon in greater detail.

## **Treatment**

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

### ***Nonsurgical Treatment***

Biceps tendinitis is typically first treated with simple methods.

**Rest.** The first step toward recovery is to avoid activities that cause pain.

**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 such as 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 can help restore range of motion and strengthen your shoulder.

### ***Surgical Treatment***

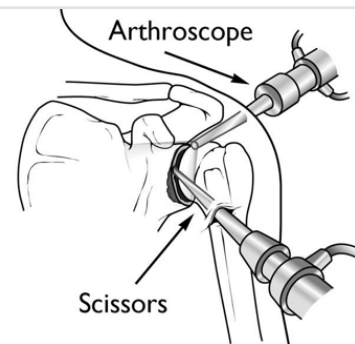
If your condition does not improve with nonsurgical treatment, your doctor may offer surgery. Surgery may also be an option if you have other shoulder problems.

Surgery for biceps tendinitis is usually performed arthroscopically. This allows your doctor to assess the condition of the biceps tendon as well as other structures in the shoulder.

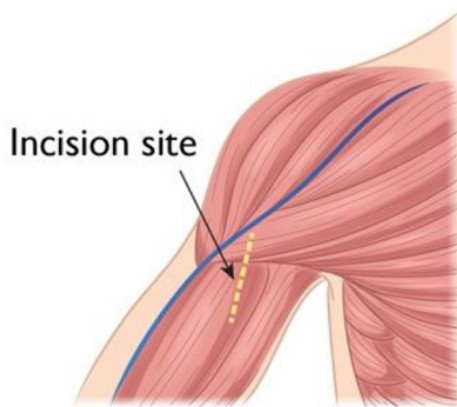
During arthroscopy, your surgeon inserts a small camera, called an arthroscope, into your shoulder joint. The camera displays pictures on a television screen, and your surgeon uses these images to guide miniature surgical instruments.

**Repair.** Rarely, the biceps tendon can be repaired 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.



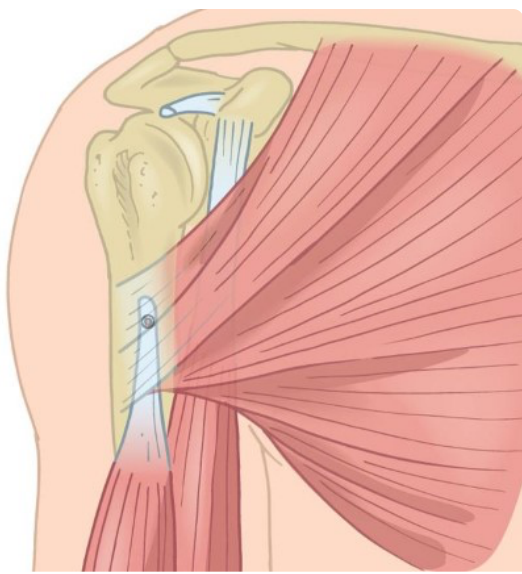
During arthroscopy, your surgeon inserts the arthroscope and small instruments into your shoulder joint.



A photograph and illustration showing the incision site for a biceps tenodesis.

*Chalmers P, Sherman SL, Ghodadra N, Mather RC, Romeo AA: Biceps Tenotomy and Tenodesis, in Flatow E, Colvin AC, eds: Atlas of Essential Orthopaedic Procedures. Rosemont, IL, American Academy of Orthopaedic Surgeons, 2013, pp 25-29.*

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



In a tenodesis, the remaining tendon is attached to the humerus with a type of screw.

*Chalmers P, Sherman SL, Ghodadra N, Mather RC, Romeo AA: Biceps Tenotomy and Tenodesis, in Flatow E, Colvin AC, eds: Atlas of Essential Orthopaedic Procedures. Rosemont, IL, American Academy of Orthopaedic Surgeons, 2013, pp 25-29.*

**Tenotomy.** In severe cases, the long head of the biceps tendon may be so damaged that it is not possible to repair or tenodesise 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.** Overall, complication rates are low, and your surgeon can correct them without difficulty.

Infection, bleeding, stiffness, and other problems are possible complications. These are more likely to occur in open surgical procedures than in arthroscopic surgeries.

**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.

### **Last Reviewed**

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