

Biceps Tendonitis



You've just perfected that great overhand serve, and your tennis instructor is over the moon. But now that nagging pain in the front of your shoulder just won't go away.

"In the past, the biceps tendon was overlooked as a source of shoulder and arm pain."

Biceps tendonitis is a common, frustrating injury among athletes and nonathletes alike. In the past, the long head of the biceps tendon—which begins in the shoulder joint—was often overlooked as a source of shoulder and arm pain.

The biceps muscle is the large muscle on the front of the arm that we use to flex the elbow and rotate the forearm. Remarkably, the long head of the biceps helps to elevate the shoulder.

The biceps muscle is formed from two tendons, which are cord-like tissues that attach the muscle to the bone. The long head of the biceps tendon begins inside the shoulder joint and comes down to connect with the short head of the biceps tendon, which begins at the coracoid process of the scapula. The two muscles together form the biceps muscle of the arm, and then have one tendon which continues down to the elbow joint, attaching to the radial tuberosity of the forearm.

Because the long head of the biceps tendon resides inside the shoulder joint, it is particularly susceptible to getting compressed by all of the surrounding bones and tissues. In addition, because it is held in place by the fibrous tissue of the rotator cuff, tears of the rotator cuff can cause the biceps tendon to become unstable and painful.

Biceps tendinitis occurs when the tendon becomes inflamed and painful, or the surrounding tissue or biceps sheath becomes inflamed. When this happens, the pain can reduce shoulder function.

In some cases, the biceps tendon has degenerative changes that may be painful but not actually inflamed. This is called biceps tendinopathy.

Symptoms

Symptoms of biceps tendonitis include:

- » Tenderness or pain in the front of the shoulder
- » Pain that gets worse at night
- » Pain shooting down the upper arm
- » Pain when trying to throw
- » A snapping sound in the shoulder during movement

Causes

- » Overhead sports. Volleyball, tennis, and baseball can cause damage to the biceps tendon or its origin inside the shoulder joint.
- » Repetitive use. Biceps tendonitis often occurs because of repetitive motion performed during at work, like painting or carpentry.
- » Rheumatologic conditions. Tendon inflammation is commonly seen with conditions such as rheumatoid arthritis and lupus.
- » Osteoarthritis. This condition can cause narrowing of the shoulder joint and pinching of the biceps tendon.

Diagnosis

Biceps tendonitis is diagnosed through physical examination and office-based tests of the biceps and shoulder function, strength, and range of motion. The most common finding in patients with this

condition is pain along the bicipital groove, which is felt at the front of the shoulder at the top of the arm. Doctors may order tests such as x-rays or MRI to confirm the diagnosis.

Biceps tendonitis is seen frequently alongside other shoulder conditions, like rotator cuff tears, rotator cuff tendinitis, and SLAP lesions.

Nonsurgical treatment options

Biceps tendonitis can often be treated with nonsurgical treatments, such as:

- » Ice
- » Rest
- » Physical therapy
- » Modified exercises (e.g., throwing underhand, swimming sidestroke, not lifting weights above shoulder level)
- » Anti-inflammatory medicines (e.g., ibuprofen pills or anti-inflammatory topical gel)
- » Corticosteroid injection with ultrasound guidance
- » Orthobiologics, such as PRP

Overhead athletes with biceps tendonitis should undergo a graded recovery program, where they start with rest and icing, then begin to stretch the affected muscles and tendons, then progress to strengthening exercises, and finally to a more advanced sports and resistance training program.

How surgery is performed

In some cases, a surgery called biceps tenodesis can be performed to help eliminate biceps tendon pain. The term biceps “tenodesis” refers to the biceps tendon (“teno”) being surgically attached (“desis”) to the bone at a different site than it normally originates from.

This procedure can be done arthroscopically or through a mini-incision of the skin without any further damage to the surrounding muscles, which means a faster recovery and less postoperative pain than other major shoulder surgeries.

Using small arthroscopic incisions, the damaged biceps tendon is released from its attachment in the



“Most patients who undergo bicep tenodesis regain their full ROM and move their arm with no pain.”

shoulder joint. The upper, or inflamed portion of the tendon, is then removed and the remaining healthy portion of the tendon is anchored to the bone either through an all-arthroscopic technique, or with a small incision near the armpit.

Recovery time

After surgery, your arm will be placed in a sling for four weeks to protect the tenodesis site. While the fixation is very strong, repetitive bending of your elbow up and down will put stress on the repair site as it heals. This movement, even without lifting objects in your hand, can have a similar effect to taking a metal clothing hanger and repetitively bending it back and forth until the very strong material breaks or separates.

After the first postoperative visit you can start physical therapy, some gentle exercises for range-of-motion of the elbow, and strengthening exercises for the fingers and hand.

- » Return to day-to-day activities is usually between six to eight weeks after surgery.
- » Return to sports, including throwing, begins around three months after surgery. Typical recovery time is four to six months.
- » For people who lift heavy weights, either in the gym or at work, it can take up to nine to twelve months to achieve the same maximum strength as the opposite biceps muscle.

Results

The vast majority of patients who have this surgery are able to return to all the activities they were capable of before they had an injury to their biceps tendon.

Most patients who undergo this surgery are able to regain their full range of motion and move their arm with no pain.

Want to learn more? Find relevant videos, animations, and research material related to this procedure at anthonyromeo.md.com. →



For more information about biceps tendonitis, please request an appointment with experienced Chicago orthopaedic surgeon Dr. Anthony Romeo.

Please visit our website to find out how to schedule your appointment.