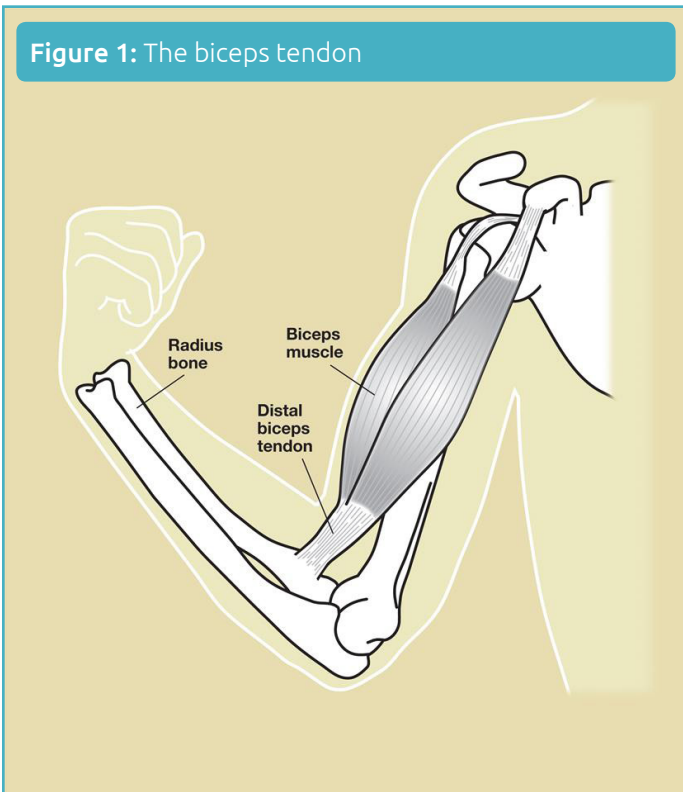


Your biceps muscle is in the front of your arm (see Figure 1). It bends your elbow and twists your forearm to turn your palm upward. The biceps tendon connects the biceps muscle to your radius bone, which is one of the forearm bones. People frequently develop biceps tendonitis (inflammation around the tendon) or tendinosis (problems with the health of the tendon). These problems can cause pain. In some cases, rupture of the biceps tendon can occur.

**Figure 1:** The biceps tendon



## Causes

Over time, the biceps tendon can weaken. This is called tendinosis. Tendinosis of the biceps tendon can be painless or it can cause dull or sharp pain in the area of the tendon just past the front of the elbow in the forearm. In some cases, tendinosis can lead to partial tendon tears or complete tendon rupture. Biceps tendinosis is one of several possible causes of pain around the elbow. There can be other causes for pain in this area that are unrelated to the health of the tendon.

Biceps tendon tear or rupture often happens without any warning. It typically occurs when lifting heavy objects such as furniture. The object slips, and while you are trying to hold on, your elbow is forcefully straightened by the weight of the object. Weightlifters are more likely to experience this injury when doing “negatives,” which is

done while holding a weight and extending the arm at the elbow.

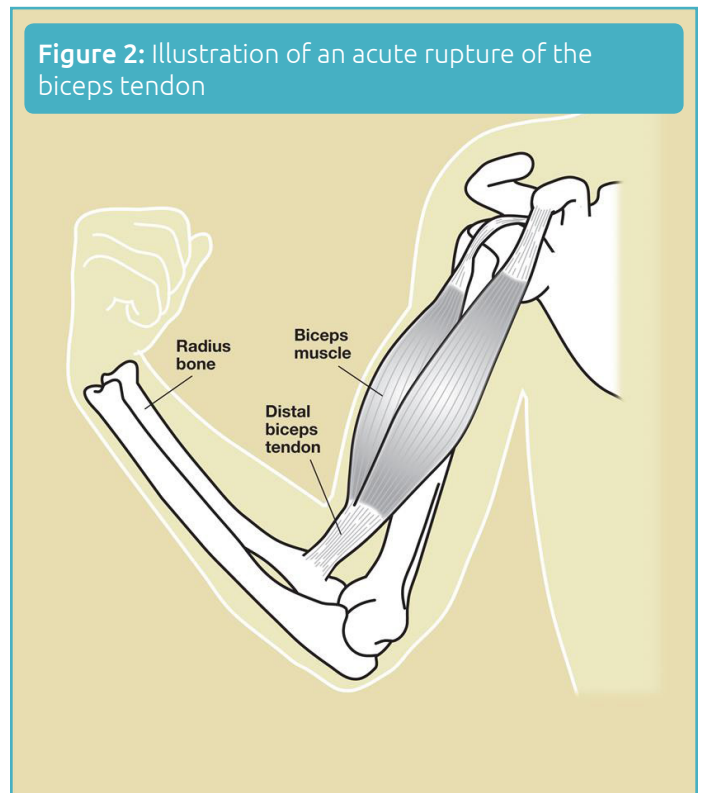
Tendonitis is a problem that can happen with any tendon. This term implies that there is inflammation around the tendon. In most cases, this is due to some use of the tendon that causes it to become inflamed. In the case of the biceps tendon, the use that causes the problem can be almost any lifting activity. This is particularly true of repeated lifting activities.

## Signs and Symptoms

A biceps tendon rupture usually occurs when the tendon tears away from the forearm bones (see Figure 2). This may be felt as a “pop” or tearing sensation in the front of the elbow and can be painful. Often, but not always, people feel:

- Continued pain
- Swelling
- Bruising
- Warmth in the elbow

**Figure 2:** Illustration of an acute rupture of the biceps tendon



Sometimes, people feel a relief from pain that was present before. Muscle spasms in the biceps muscle are common when this happens. Symptoms usually get better over a few weeks. Also, sometimes the muscle can pull

up in the arm toward the shoulder. This results in a muscle with a larger-than-normal appearance.

The elbow will usually continue to work after a biceps tendon rupture. This is because there are other muscles that can perform part of the job of the biceps muscle. You may experience weakness when flexing the elbow. Most of the weakness after a biceps tendon rupture occurs when twisting your forearm to turn the palm upward, also called supination. You may experience fatigue with repetitive motions, such as turning a screwdriver, if your tendon is not repaired.

There are many medical problems that can make people more likely to have tendon ruptures. Chronic steroid use, whether for medical purposes or when used to gain muscle, is one of the most common reasons for this to happen.

Tendon rupture is most common in men over age 30 but can happen to men and women at any age.

## Treatment

If the biceps tendon tears completely, it will not grow back to the bone. You should seek care immediately if this occurs since repair is often an option, and surgery is best done soon after the injury. If too much time passes, the tendon may become very difficult to repair or even be irreparable.

Your surgeon may choose to use imaging, such as an MRI or ultrasound. This can help to diagnose your tear or to

plan for surgery. X-rays are often used at the initial visit. X-rays do not show the tendon well but can be helpful in looking for other causes of elbow pain.

Surgery is not always absolutely required for a biceps tendon rupture, but your doctor may suggest it. If your arm is working well after the rupture, you may choose not to have surgery. If you choose to avoid surgery, then you should expect some degree of permanent weakness and an arm that becomes more easily fatigued.

If you choose surgery, the surgery's purpose is to reattach the tendon to the bone or to a nearby muscle. There are many different ways surgeons can reattach tendons to bone. Figure 3 shows a repair of the biceps tendon. After surgery, you will require rehabilitation and time to heal. Often, people are able to resume even heavy activities after surgery and rehabilitation.

