

# BICEPS TENDINOPATHY AND STRAIN

## What is biceps tendinopathy and strain?

Tendons are strong bands of connective tissue that attach muscle to bone. When a tendon is acutely injured it is called a strain. Tendonitis is when a tendon is inflamed. When there are micro-tears in a tendon from repeated injury it is called tendinosis. The term tendinopathy refers to both inflammation and micro-tears.

The biceps muscle is located in the front part of the upper arm. The biceps tendons attach the muscle to the elbow and in two places at the shoulder. When the biceps tendons are inflamed it usually causes pain in the front part of the shoulder or upper arm.

## How does it occur?

Biceps tendinopathy occurs from overuse of the arm and shoulder or from an injury to the biceps tendon. A biceps strain can occur when the arm is pulled in a sudden awkward motion or from overuse.

## What are the symptoms?

You feel pain when you move your arm and shoulder, especially when you move your arm forward over shoulder height. You feel pain when you touch the front of your shoulder or during certain activities, such as throwing.

## How is it diagnosed?

Your healthcare provider will examine your arm and shoulder for tenderness along the biceps muscle and biceps tendons. He or she will check for pain with movement and check the strength of your biceps.

## How is it treated?

Treatment may include:

- placing ice packs on your shoulder for 20 to 30 minutes every 3 to 4 hours for 2 or 3 days or until the pain goes away
- taking anti-inflammatory medicine (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval)
- getting an injection of a corticosteroid medicine to reduce the inflammation and pain
- doing rehabilitation exercises.

## When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you

return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your activity will be determined by how soon your shoulder recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when:

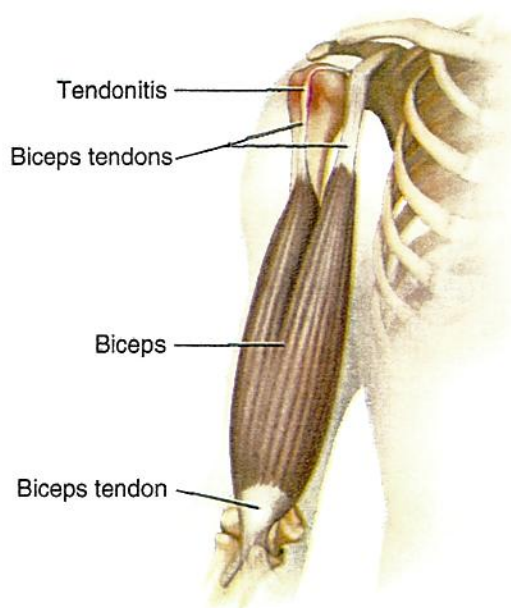
- your injured shoulder has full range of motion without pain
- your injured shoulder has regained normal strength compared to the uninjured shoulder

In throwing sports, you must gradually rebuild your tolerance to throwing. This means you should start with gentle tossing and gradually throw harder. In contact sports, your shoulder must not be tender to touch and contact should progress from minimal contact to harder contact.

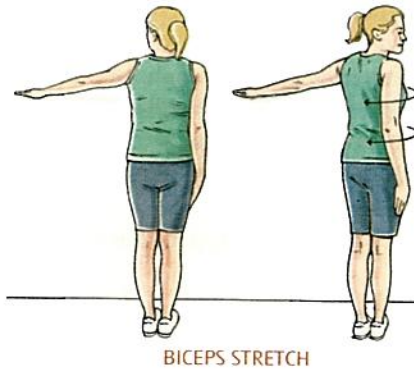
## How can I prevent biceps injury?

You can best prevent a biceps injury by doing a proper warm-up and stretching exercises for your arm and shoulder before your activity.

## BICEPS TENDINOPATHY AND STRAIN



# BICEPS TENDINOPATHY REHABILITATION EXERCISES



BICEPS STRETCH

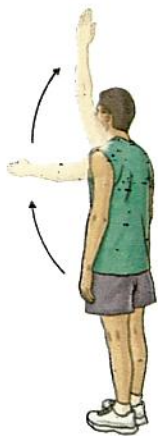
**1. BICEPS STRETCH:** Stand facing a wall (about 6 inches away from the wall). Raise your arm out to your side and place the thumb side of your hand against the wall (palm down). Keep your elbow

straight. Rotate your body in the opposite direction of the raised arm until you feel a stretch in your biceps. Hold 15 seconds, repeat 3 times.

**2. BICEPS CURLS:** Stand and hold some kind of weight (soup can or hammer) in your hand. Bend your elbow and bring your hand (palm up) toward your shoulder. Hold 5 seconds. Slowly return to your starting position and straighten your elbow. Do 3 sets of 10.



BICEPS CURLS

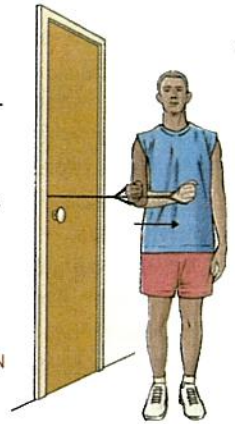


**3. SINGLE-ARM SHOULDER FLEXION:** Stand with one arm hanging down at your side. Keeping your elbow straight, bring your arm forward and up toward the ceiling. Hold this position for 5 seconds. Do 3 sets of 10. As this exercise becomes easier, add a weight.

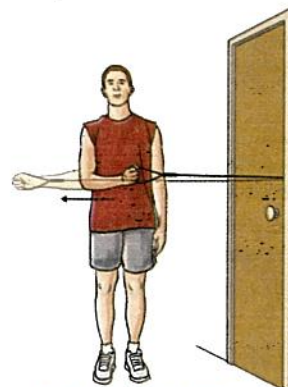
SINGLE-ARM SHOULDER FLEXION

**4. RESISTED SHOULDER INTERNAL ROTATION:** Holding tubing connected to a door knob at waist level, keep your elbow in at your side and rotate your arm inward across your body. Make sure you keep your forearm parallel to the floor. Do 3 sets of 10.

RESISTED SHOULDER INTERNAL ROTATION



**5. RESISTED SHOULDER EXTERNAL ROTATION:** Stand sideways next to a door. Rest the hand farthest away from the door across your stomach. With that hand grasp tubing that is connected to a doorknob at waist level. Keeping your elbow in at your side, rotate your arm outward and away from your waist. Make sure you keep your elbow bent 90 degrees and your forearm parallel to the floor. Repeat 10 times. Build up to 3 sets of 10.



RESISTED SHOULDER EXTERNAL ROTATION

**6. SIDE-LYING EXTERNAL ROTATION:** Lie on your one side with your top arm at your side and your elbow bent to 90°. Keep your elbow against your side, raise your forearm and hold for 2 seconds. Slowly lower your arm. Do 3 sets of 10. You can start doing this exercise holding a soup can or light weight and gradually increase the weight as long as there is no pain.

SIDE-LYING EXTERNAL ROTATION

