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PATIENT GUIDE TO BICEPS TENDON PATHOLOGY

What is the biceps tendon?

The biceps muscle in the arm has two attachments around the shoulder. The most commonly injured is the long head of the biceps tendon. This tendon attaches inside the shoulder joint to the top part of the labrum. It then travels down the front of the arm bone in the biceps groove. The tendon then connects to the biceps muscle that crosses the elbow joint.

What are the types of biceps tendon injuries?

There are several locations for the biceps to be injured. Tears of the biceps attachment inside the shoulder are called SLAP tears. The actual tendon is often intact, but the attachment is unstable, which causes the pain. The biceps tendon itself can have tears or tendonitis. Also, the biceps tendon can dislocate from its groove.

How is the biceps tendon injured?

The biceps tendon is very commonly injured. This can be from trauma, like a fall or accident, wear and tear over time, or from sports. The most common sports injuries are in overhead athletes, including throwing sports like baseball and softball, tennis, volleyball, and swimming. Biceps injuries are common at all ages, with sports injuries more common in younger athletes, and degenerative conditions in older patients.

How do I know my biceps is injured?

Pain is usually the first sign of a biceps injury. This pain is typically in the front of the shoulder, and it is associated with overhead activities, reaching across your body, reaching behind your back (tucking in your shirt motion) or throwing. Some patients complain of a popping or clicking sensation if the tendon is unstable. Some people also notice that the shoulder joint itself has a feeling of slipping out of the joint with a SLAP tear.

Do I need x-rays, MRI's or any other test?

A set of x-rays is usually ordered to evaluate the bones around the shoulder. The bone above the rotator cuff, called the acromion, can be misshapen or have excess bone (a bone spur), which leads to pinching and irritation of the rotator cuff. The x-rays are also used to evaluate for arthritis of the shoulder joint and acromioclavicular joint (AC joint).

An MRI may be ordered if biceps pathology suspected, or if a patient is not improving with conservative treatment. Sometimes this requires an injection of contrast dye called an arthrogram.

Is there other damage to the shoulder when the biceps is injured?

There is frequently other damage to the shoulder that can occur with biceps injuries. The rotator cuff tendons can become frayed or torn. In addition, the acromioclavicular joint, the joint on top of the shoulder where the clavicle (collarbone) meets the shoulder (acromion), may be arthritic. Arthritis of the acromioclavicular joint commonly is present with biceps tendonitis or tears.

What are the treatment options for biceps injuries?

Many patients with a biceps injury improve with conservative treatment. The treatment includes exercises, use of anti-inflammatory medications (NSAIDs), and possibly an injection of steroid. The rehabilitation may include a program you can do at home or formal physical therapy. A steroid injection is commonly used in patients who do not get better with therapy, or in severe cases. Many patients get better with these treatments and do not require surgery.

If patients do not get better with conservative therapy, or have tendon tear or instability, surgery may be necessary.

How are biceps injuries treated with surgery?

There are three main surgical procedures performed for biceps pathology:

SLAP repairs. Plastic screws with stitches attached (called anchors) are placed in the bone of the shoulder socket. The stitches are passes around the labrum near the biceps anchor and secured. The goal is to get the labrum to heal back to the bone. This is typically performed in young patients or throwing athletes. Due to complication risk that increases with age, these are not typically performed in patients over 30. Recent research has also decreased the patients for whom this is the procedure of choice.

Biceps tenotomy. This involves cutting the biceps tendon from its anchor arthroscopically and not repairing it back to the bone. The benefits include minimal recovery time. Because the tendon does not have to heal, there are no significant post-surgical lifting restrictions. This will lead to a cosmetic deformity where the biceps muscle bulges and crampy arm pain that is usually temporary. Some research suggests that there may be some minor, long-term loss of endurance of the muscle.

Biceps tenodesis. This is the most common procedure for biceps pathology. It also involves cutting the biceps tendon from its anchor arthroscopically, but the tendon is then repaired back to the arm bone outside the shoulder joint with a plastic screw through a small incision in the under arm. This moves the tendon from the shoulder, stops the

biceps from pulling on a SLAP tear, prevents the tendon from dislocating, and allows for removal of a torn portion of the tendon. It has an excellent success rate with a low complication profile.

What if I have pain or arthritis of my acromioclavicular (AC) joint?

Pain directly on top of the shoulder in the acromioclavicular (AC) joint can be treated with surgery. The surgery is to remove a small portion of the end of the clavicle bone, to eliminate rubbing between the bones. This eliminates the pain. This procedure can be performed with the arthroscope. Occasionally, an open incision is used to remove the end of the clavicle. There is no significant problem with arm strength when the end of the clavicle is removed.

What are some of the possible complications of surgery?

While complications are not common, all surgery has associated risk. Possible complications include stiffness of the shoulder after surgery, recurrent tear of the biceps repair site, or continued pain. The use of arthroscopic techniques attempts to limit these complications. Other complications include an infection, bleeding, nerve damage, or problems with the anesthesia.

What kind of anesthesia is used?

A combination of general anesthesia and regional anesthesia. Before the surgery, the anesthesiologist will inject some numbing medication around the nerves of the shoulder. This numbs the arm and helps to control your pain after surgery. In addition, you go to sleep (general anesthesia) to help keep you comfortable during surgery.

What do I need to do to prepare for surgery?

Our staff will help to set up the surgery through your insurance company and will instruct you on any paperwork that may be necessary.

Prior to your surgery, you may be asked to get several medical tests, done on an outpatient basis. Some patients need some blood tests. If you are over age 45, you may require an EKG. Some patients need to see an internist or their family doctor to obtain clearance for surgery.

The night before the surgery, a member of our staff will contact you about what time to arrive for surgery. You may not eat or drink anything after midnight the night before your surgery.

How long will I be in the hospital?

Almost all patients are able to have surgery and go home the same day. Rarely, patients will be admitted for an overnight stay.

What happens the day of surgery?

The morning of your surgery you will be admitted and taken to a pre-operative holding are where you area prepared for surgery.

You will be asked several times which extremity I am operating on. The correct extremity will be marked by me the day of surgery. Please note that you are asked this question many times on purpose.

After the operation, you will be taken to the recovery room to be monitored. Once the effects of anesthesia have worn off and your pain is under good control, you can see your family and finish recovering. You will be given all of your post-operative instructions and pain medication before leaving.

Please be aware that the process of getting checked in, prepared for surgery, undergoing the operation, and recovering from anesthesia takes the majority of the day. I would recommend that you and your family members bring along some reading material to make the process easier for all.

How should I care for my shoulder after surgery?

Prior to your discharge, you will be given specific instructions on how to care for your shoulder. You should not actively move your arm away from your side. You can use your other arm to raise it or your therapist can raise your arm. In general, you can expect the following:

Diet: Resume your regular diet as soon as tolerated. It is best to start with clear liquids before advancing to solid food.

Medication: You will be given a prescription for pain medication.

Bandage: You will have a thick dressing on the shoulder. You will be instructed on when it can be removed, usually in 3 days.

Showering: You may shower after your dressing is removed, after 3– 4 days. You cannot take a bath until the wounds are completely sealed, usually 2 – 3 weeks after surgery.

Sling: You will have a sling, which you will use for 4 to 6 weeks. You can remove it for grooming and physical therapy.

Ice: You may receive an ice machine that continually surrounds your shoulder with cold water. If not, you may apply ice over the dressings for 30 minutes every hour for several days. Do not use heat.

Suture removal: Your stitches will be removed at your office visit 7-10 days after surgery. Occasionally, sutures are used which resorb and do not need to be removed.

Follow-up office visit: You will be instructed on when to follow-up in the office. This is usually 7-14 days after surgery.

Exercise: You will be instructed on exercises you can do immediately after surgery. I typically start physical therapy 2-4 days after surgery.

Return to work or school: You can return to school or work within 3 – 5 days without using the affected arm. If you need the use of the arm to return, you may be out of work or school for a longer period of time.

What will rehabilitation involve?

The rehabilitation is based on several goals: 1) allowing the tissue to heal; 2) regaining motion; 3) regaining strength; and 4) return to sports. This will a time period of 3 to 5 months.

When can I return to sports?

In general, you will be allowed to return to sports in 6 months after surgery. You must have good motion, strength, and control of your shoulder and arm. How quickly you return to sports depends on several factors, including: 1) your own rate of healing; 2) the damage found at surgery; 3) if you have any complications; 4) how well you follow the post-operative instructions; 5) how hard you work in rehabilitation.

What is the success rate?

Overall, the success rate for biceps tendon surgery ranges from 85 to 95% for attaining pain relief. The overall complication rate is around 8%, with stiffness being the most common complication. Major complications are rare.

Our commitment

The entire NewportCare team is committed to you, the patient. We understand that this is a stressful time, and you may be anxious about your injury and the need for surgery. Please contact me with any questions about your injury or treatment plan.

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