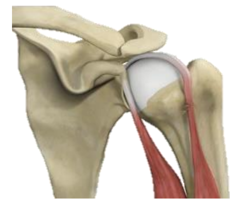
A Patient Education Guide:
ARTHROSCOPIC BICEPS TENODESIS

This is a brief overview of what you, the patient, should know about getting an Arthroscopic Biceps Tenodesis. If you have any questions, please write them down and bring them to your next consultation so I can go through them with you in detail.

WHAT IS A BICEPS TENDON TEAR?



The biceps *muscle* allows you to flex your forearm towards your shoulder and assists in raising your arm. The biceps *tendon* anchors that muscle to the shoulder. The tendon originates in the upper portion of your shoulder from a structure called the *labrum*. If you think of your shoulder as a *ball-and-socket joint*, the labrum is a ring of tissue that surrounds the "socket". The biceps tendon travels along the front of the humeral head – or "ball" – and into the bicipital groove.

Sometimes this tendon can become injured through direct trauma, overuse, or aging. The degree of injury can range from inflammation to partial tearing, to a full-thickness tear. A biceps tendon injury is often associated with a concurrent injury to the rotator cuff (rotator cuff tear) or the superior labrum (SLAP tear). Therefore, biceps tendon surgery might be performed alone or as one part of a larger procedure to address the problems in your shoulder. The type of biceps tendon injury and the presence of other issues in your shoulder determines the type of treatment you will require. Common types of biceps tendon injuries are:

Biceps Tendonitis

When the biceps tendon is not torn, but rather inflamed and irritated, it is called *biceps tendinitis*. Biceps tendinitis is typically the result of overuse but can also be caused by an acute injury. This can be painful and can reduce your ability to move your shoulder. Depending on your level of irritation, age, and symptoms, this condition can be treated with physical therapy, an injection in the shoulder, or surgery.

Partial Biceps Tendon Tear

In some cases, the biceps tendon can be *partially* torn. This can cause a reduction in strength and pain. Sometimes, the partial tear can "scar-in" and symptoms can improve with time. Age, level of activity, and amount of tearing usually determine treatment. Again, this can involve physical therapy, an injection, or surgery.

Full-Thickness Biceps Tendon Tear

When a tendon is 100% torn, it is called a *full-thickness tear*. A full-thickness tear may allow the biceps muscle to shorten and collect towards the elbow, creating a cosmetic deformity called a "Popeye deformity". However, the tendon might fuse with the shoulder on its own. Typically, this does not cause any major dysfunction and most patients do not notice any weakness. The major result is a cosmetic difference (the arm will look different than the uninjured side). Although it may seem counter-intuitive, an isolated, full-thickness shoulder biceps tendon tear does not usually require surgery. This is different than a biceps tear at the *elbow*, which typically does require surgery.

HOW IS A BICEPS TENDON SURGERY PERFORMED?

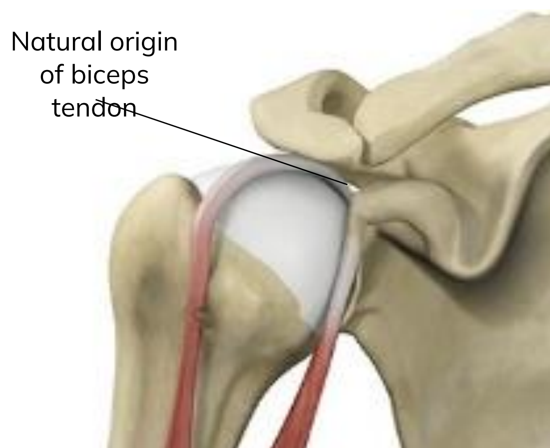
Dr. Smith performs most biceps tendon surgeries *arthroscopically*. Arthroscopy is a *minimally invasive* surgical method. Instead of a large incision that fully exposes the joint area, several small incisions (typically less than 1cm) are made around the joint. These incisions serve as access points for the arthroscope (narrow tube fitted with a camera) and other pencil-thin surgical instruments. The real-time inside view of the joint is projected onto a high-definition monitor. Arthroscopy has several benefits: less postoperative pain, faster healing time, and lower infection rates.

Arthroscopic Biceps Tenodesis

The first step of a *biceps tenodesis* (biceps tendon surgery) is identifying and assessing the injury for severity. The joint area is inspected to identify and address any other issues that may be contributing to the reported pain, weakness, or stiffness. Then, the repair begins. The damaged tendon is sectioned at its origin near the shoulder socket, sutured, and reattached to the arm bone. This is typically done using plastic anchors (screws) and sutures (thread). This allows the biceps tendon to be tied down and secured.

In slightly older patients, the torn biceps tendon might be too frail or injured to secure to the arm bone. In these cases, the biceps tendon is sectioned but not reattached. This is called a *biceps tenotomy*. The functional outcomes of both tenodesis and tenotomy are similar. However, a tenotomy can sometimes leave a bulge in the arm which can be particularly noticeable in thin or very muscular people.

Sometimes a tenodesis (reattachment) of the biceps tendon can become undone which will result in a similar situation to performing a tenotomy. This is usually due to the quality of the biceps tendon being poor. Again, the functional results are similar, and the only long-term difference would be cosmetic. It usually does not require any type of further intervention.



Before tenodesis

After tenodesis

WHAT SHOULD I EXPECT?

Before Surgery

- You may need medical clearance from your medical specialist (primary care doctor, cardiologist, etc.) before surgery.
- Our office will contact you to book your surgical time and location. Typically, outpatient (same day) surgeries are done at an outpatient surgical center close to your home. Overnight stay procedures are rare, but they will be performed at Flowers Hospital or Southeast Health.
- You will receive a confirmation call from the hospital the day before surgery telling you what time you should arrive. They will usually go over last-minute details such as hygiene tips, and let you know which medications to bring. It is normal to arrive several hours ahead of your scheduled time to allow for the check-in process.
- **Do not eat or drink anything after midnight the night before surgery.** You may take sips of water to swallow pills if required and cleared by your medical team**. Your surgery may need to be canceled if you do not adhere to these instructions.**

Morning of Surgery

- Arrive at the hospital or surgery center at your instructed time.
- If possible, arrive with a family member or friend who can assist with your check-in and help you remember any last-minute questions. There will be a place for family and friends to wait while you are in surgery. **You will require someone to take you home if you are leaving the same day of surgery.**
- Dr. Smith will meet with you before you enter the operating room to answer any questions and perform an initial safety check.
- The anesthesia team will meet with you to discuss their anesthesia plan during surgery and be able to answer any questions you may have for them.

After Surgery

Hospital Stay

- Most patients having arthroscopic surgery leave the same day, several hours after surgery.
- During this time, your nurse and anesthesia team will help to manage your post-operative pain**. It is important to know that you will have some pain, but the medications should help make your pain manageable.**
- You will need someone to take you home.
- A Case Manager can be available to help if you need any other services when you are discharged home.

Home

- **Wear your sling at all times except for bathing and doing your gentle post-operative exercises.** These exercises include moving your hand and wrist and coming out of the sling to fully straighten and bend your elbow. You should do this 3-4 times a day.
- Keep your bandage dry while bathing. This may require covering it with a plastic wrap (i.e., “press-and-seal”) or taking sponge baths.
- **Do not use your operative arm to carry or lift anything.** Do not use your operative arm to push yourself up from a chair or when getting off the toilet.
- **No driving while using your sling and while you are taking your narcotic pain medications.**
- Do your best to wean off your narcotic pain medications. Over-the-counter medications such as Tylenol and Ibuprofen can be very helpful.

- Many people are most comfortable sleeping in a more upright position after surgery. You can opt to sleep in a recliner or prop yourself up on pillows in bed. **You need to wear your sling while sleeping.**
- If you received an ice machine, please use it as instructed to help reduce swelling. You may also use ice packs or bags. Do not use for longer than directed and always avoid direct skin contact.
- Follow your initial physical therapy instructions carefully if you have been given them.

Follow-Up

- Your first follow-up appointment is usually 10-14 days following surgery.
- At this visit we will discuss your progress and check your incision. We may take x-rays. We may also remove your sutures/staples at this time.
- We will determine if you are ready for outpatient physical therapy.
- If you can start physical therapy, you will be given a referral with the specific instructions both you and your therapist should follow.
- We will then book your next follow-up visit before you leave, which is typically 4-6 weeks later.

I hope this has helped clarify some of your questions surrounding Arthroscopic Biceps Tenodesis. You can find additional resources including video demonstrations at www.southernbone.com.

As always, do not hesitate to ask questions and schedule a follow-up appointment should you require any further discussion.

Best,

Cory D. Smith, MD