Cohere Medicare Advantage Policy - Shoulder Biceps Tenodesis/Tenotomy

Clinical Guidelines for Medical Necessity Review

Version: 1
Effective Date: March 27, 2025

Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

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Other Notices:

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medicare Advantage Policy - Shoulder Bicep Tenodesis/Tenotomy
Date of last literature review: 03/25/2025
Document last updated: 03/26/2025
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Shoulder Biceps Tenodesis/Tenotomy

Benefit Category

Not applicable.

Related CMS Documents

Please refer to the CMS Medicare Coverage Database for the most current applicable CMS National Coverage.

- There are no applicable NCDs and/or LCDs for Shoulder Biceps Tenodesis/Tenotomy.

Recommended Clinical Approach

Biceps tenodesis and tenotomy are surgical procedures used to address conditions affecting the long head of the biceps tendon. These procedures can treat biceps tendinitis, superior labrum anterior-posterior (SLAP) tears, and other conditions that cause pain and dysfunction in the shoulder. Biceps tenodesis involves detaching the LHBT at the glenoid and reattaching it to the humerus. Biceps tenotomy detaches the LHBT from its origin without reattachment. Both procedures are effective for reducing pain and improving shoulder function. The appropriate procedure may be performed open or arthroscopically, depending on the patient's functional requirements, age, and the surgeon's discretion. There is no consensus regarding choosing tenodesis or tenotomy for biceps tendon pathology with or without rotator cuff tear.[1-7]

Evaluation of Clinical Harms and Benefits

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of shoulder biceps tenodesis/tenotomy. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

The potential clinical harms of using these criteria may include:

- Surgical complications with these procedures may include the risk of nerve injury, blood clots, humeral fractures, or cosmetic deformity.[1,2]
- Postoperative shoulder stiffness, muscle cramping, and strength deficits can occur.[2,8]
- As with any surgical procedure, there is a risk of infection or other adverse reactions.
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria include:

- Improved patient outcomes through timely and appropriate access to the procedure. Both procedures can alleviate pain and improve shoulder function and range of motion, and elbow flexion.[1-3]
- Reduction in complications and adverse effects from unnecessary procedures. Proper use of diagnostic criteria can prevent unnecessary surgeries and associated risks.
- Tenotomy is a simpler and faster procedure, which may reduce operating time and associated risks.[8]
- Tenodesis maintains the biceps shape, which can reduce the risk of cosmetic deformity.[8]
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

- ➔ **Shoulder biceps tenodesis/tenotomy** is considered appropriate if **ALL** of the following are **TRUE**[4-7]:
  - ◆ The patient has **AT LEAST TWO** of the following positive exam findings:
    - Anterior slide test; **OR**
    - Biceps load test; **OR**
    - Clunk test; **OR**
    - Compression rotation test; **OR**
    - Biceps tendon tenderness in the bicipital groove; **OR**
    - O'Brien's test; **OR**
    - Speed's test; **OR**
    - Uppercut test; **OR**
    - Yergason test; **AND**
  - ◆ Significant pain and/or functional impairment that impacts activities of daily living (ADLs); **AND**
  - ◆ Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken rather than solely a physician's statement; **AND**
  - ◆ Magnetic resonance imaging (MRI) or computed tomography (CT) demonstrates biceps tendon pathology to include **ANY** of the following:
    - Biceps tendon subluxation/dislocation; **OR**
    - Biceps tenosynovitis/tendinopathy/tearing; **OR**
    - Superior labrum anterior and posterior (SLAP) tear; **OR**
    - Hypertrophy of proximal biceps tendon.

Non-Indications

- ➔ **Shoulder biceps tenodesis/tenotomy** is not considered appropriate if **ANY** of the following is **TRUE**[1,4,5,9]:
  - ◆ Biceps tenotomy in an athlete or patient with high-activity demands.

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
S2300	Arthroscopy, shoulder, surgical
23430	Tenodesis of long head of biceps muscle
23440	Transplantation of biceps tendon
29828	Arthroscopy shoulder biceps tenodesis

Disclaimer: G, S, I, and N Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Medical Evidence

Zhang et al (2023) conducted a study aimed to determine the optimal surgical strategy for long head of the biceps tendon (LHBT) lesions by comparing tenotomy and tenodesis through a meta-analysis of randomized controlled trials (RCTs). Ten RCTs involving 787 cases were analyzed. Results showed that tenodesis led to significantly better outcomes regarding Constant scores, Simple Shoulder Test (SST) scores, and reduction in Popeye deformity and cramping pain compared to tenotomy. However, there were no significant differences between the two procedures regarding pain relief, American Shoulder and Elbow Surgeons (ASES) score, biceps strength, and shoulder range of motion. Subgroup analysis suggested that intracuff tenodesis might offer the best shoulder function, as measured by Constant scores. Both procedures provide satisfactory results. However, tenodesis appears superior in improving shoulder function and reducing certain complications associated with biceps tendon lesions.[10]

Ahmed et al (2021) compare the effectiveness of tenotomy vs tenodesis for treating LHBT pathologies. Outcomes measured include shoulder functional improvement, postoperative pain, elbow flexion, forearm supination strengths, and complications. The authors reviewed RCTs with a minimum of 12 months follow-up. Tenodesis and tenotomy show similar improvement in the Constant-Murley score at 6 and 12 months postoperatively. However, tenotomy resulted in a significantly lower Constant-Murley score at two years compared to tenodesis. Tenotomy also had a higher risk ratio for developing Popeye's deformity. Based on current evidence, both techniques are recommended and have similar results concerning functional outcomes, pain levels, and strength indices.[11]

Frank et al (2018) discuss the management of biceps tendon pathology. The long, inflamed head of the biceps tendon is managed surgically when symptomatic via procedures including tenotomy, tenodesis, and repair. Controversy exists on the most appropriate treatment and timing of such. A course of conservative treatment is recommended, if possible, before surgical treatment. Success rates gleaned from the literature regarding superior labrum from anterior to posterior (SLAP) tears with a biceps tenodesis are consistently high.[1]

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Clinical Guideline Revision History/Information

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