Cohere Medical Policy - Shoulder Biceps Tenodesis/Tenotomy

Clinical Policy for Medical Necessity Review

Version: 2
Cohere Health UMC Approval Date: July 31, 2025
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Revision: Not Applicable
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Important Notices

Notices & Disclaimers:

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Policy Information:

Specialty Area: Musculoskeletal Care
Policy Name: Cohere Medical Policy - Shoulder Biceps Tenodesis/Tenotomy
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Shoulder Biceps Tenodesis/Tenotomy

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a clinical evaluation by the treating provider, which may include referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched procedure, laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
    - The medical necessity of each individual request
    - Why prior imaging or procedures were inconclusive, or why additional/follow-up studies are needed
    - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.

Description

Biceps tenodesis and tenotomy are surgical procedures used to address conditions affecting the long head of the biceps tendon (LHBT). 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. The appropriate procedure may be performed open or arthroscopically, depending on the patient's functional requirements, age, and the surgeon's discretion.[1] There is no consensus regarding choosing tenodesis for proximal biceps tendon pathology with or without rotator cuff tear.[2-5]

Medical Necessity Criteria

Indications

Shoulder biceps tenodesis/tenotomy is considered appropriate if **ANY** of the following is **TRUE**[2-8]:

- The patient has an acute bicep rupture with **ALL** of the following[9]:
    - Acute injury with noted deformity on exam or confirmed on imaging; **AND**
    - Active (e.g., physically demanding jobs); **AND**
    - Significant pain and weakness or weakness on exam; **OR**
- The patient has **ALL** of the following:
    - Positive exam findings for biceps tendon pathology (e.g., Speed's, O'Briens, Yergason, biceps groove tenderness); **AND**
    - Significant pain and/or functional impairment that impacts activities of daily living (ADLs); **AND**
    - Failure of conservative management for greater than 3 months, including **ALL** of the following:
        - Anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids, neuropathic pain medications) if not contraindicated; **AND**
        - Physical therapy or a physician-directed home exercise program; **AND**
        - **ANY** of the following:
            - Corticosteroid injection if medically appropriate; **OR**
            - Documentation that corticosteroid injection is contraindicated; **AND**

- Magnetic resonance imaging (MRI) or computed tomography (CT) with radiologic report that demonstrates biceps tendon pathology, including **ANY** of the following:
  - Biceps tendon subluxation/dislocation; **OR**
  - Biceps tenosynovitis/tendinopathy/tearing; **OR**
  - Superior labrum anterior and posterior (SLAP) tear; **OR**
  - Hypertrophy of the proximal biceps tendon.

Non-Indications

Shoulder biceps tenodesis/tenotomy is not considered appropriate if **ANY** of the following is **TRUE**:

- Biceps tenotomy or tenodesis is being performed as part of a total shoulder arthroplasty (not separately billable); **OR**
- Biceps tenotomy in an athlete or patient with high-activity demands[1]; **OR**
- Asymptomatic biceps pathology.

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
23430	Tenodesis of long head of biceps muscle
23440	Resection or transplantation of long tendon of biceps
29823	Arthroscopy, shoulder, surgical; debridement, extensive, 3 or more discrete structures (eg, humeral bone, humeral articular cartilage, glenoid bone, glenoid articular cartilage, biceps tendon, biceps anchor complex, labrum, articular capsule, articular side of the rotator cuff, bursal side of the rotator cuff, subacromial bursa, foreign body[ies])
29828	Arthroscopy, shoulder, surgical; biceps tenodesis

Medical Evidence

Zhang et al. (2023) conducted a study aimed at determining 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 versus tenodesis for treating long head of the biceps tendon pathologies. Outcomes measured include shoulder functional improvement, postoperative pain, elbow flexion, forearm supination strength, and complications. The authors reviewed RCTs with a minimum of 12 months of 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]

Belk et al. (2021) conducted a systematic review of 5 level I randomized controlled trials (RCTs) on the complications and clinical outcomes of biceps tenodesis and tenotomy for the treatment of LHBT. A total of 468 patients were included across all studies; the mean age of patients was 60.3 (biceps tenodesis) and 59.7 (biceps tenotomy). The mean follow-up time was 23 months. Clinical outcomes were similar for both procedures. The authors noted that cosmetic deformity was more common in patients who underwent biceps tenotomy vs tenodesis. Aside from cosmetic deformities,

postoperative complications included reoperation, infection, cramping, stiffness, adhesive capsulitis, and neural or vascular injury. Complication rates were similar for both procedures.[12]

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) are consistently high.[1]

References

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Policy Revision History/Information

Original Date: May 28, 2024		
Review History		
Version 2	07/31/2025	Annual review. Added indication for a patient with acute bicep rupture with ALL of the following (Alfatooni et al., 2000): • Acute injury with noted deformity on exam or confirmed on imaging; AND • Active (e.g., physically demanding jobs); AND • Significant pain and weakness or weakness on exam. Updated bullet for positive exam findings to "the patient has positive exam findings for biceps tendon pathology (e.g., Speed's Obriens', Yergason, biceps groove tenderness)". Removed sub-bullets for anterior slide test, biceps load test, clunk test, compression rotation test, biceps tendon tenderness in the bicipital groove, O'Brien's test, Speed's test, Uppercut test, and Yergason test. Standard failure of conservative management language was updated per the Style Guide. Revised the indication from "oral steroids, anti-inflammatory medications, or analgesics" to "anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids,

		neuropathic pain medications) if not contraindicated." Also added to the indication for "physical therapy" to state "or a physician-directed home exercise program." Standard language for advanced imaging was updated per the Style Guide. Revised from "advanced diagnostic imaging studies (e.g., MRI, CT) demonstrate biceps tendon pathology and correlate with the patient's symptoms and physical exam findings" to "magnetic resonance imaging (MRI) or computed tomography (CT) with radiologic report that demonstrates biceps tendon pathology." Updated references for indication section (Cardoso et al., 2019; Manske et al., 2013; George et al., 2008). Added CPT 29823. Removed CPT S2300. Added non-indication for "asymptomatic biceps pathology." Literature review - Medical Evidence section updated (Belk et al., 2021).