Boulder Centre for Orthopedics & Spine
Your Life in Motion

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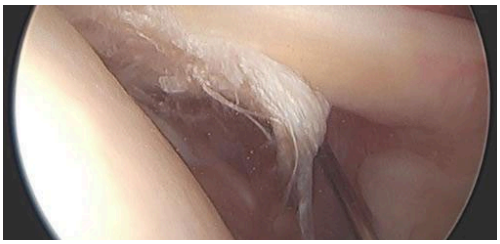
Biceps Tenotomy versus Tenodesis

Background: The biceps muscle has two heads, both of which insert in the anterior shoulder. The short head (named for its shorter length) attaches to the coracoid process and is rarely a source of shoulder discomfort. The long head of biceps tendon travels in the bicipital groove and through the shoulder joint to insert on the superior glenoid (the top of the shoulder joint). It has been implicated as a common source of anterior shoulder pain and dysfunction. Pain secondary to abnormality of the long head of the biceps can be caused by partial tearing of the tendon or associated superior labrum anterior to posterior (SLAP) tears. These issues can be present alone or in combination with other shoulder pathology including rotator cuff tears.

Treatment: Many patients with anterior shoulder pain secondary to abnormalities of the long head of the biceps/superior labral complex and be successfully managed with non-operative treatment including rest, non-steroidal anti-inflammatories (NSAIDs such as Advil, Aleve), physical therapy, and occasionally steroid injections. Occasionally the long head of the biceps tendon will spontaneously rupture. If this is the sole source of shoulder pain, the pain frequently resolves completely with some a mild residual cosmetic deformity and no loss of function. Professional quarterbacks have returned to play after spontaneous rupture of the long head of the biceps (John Elway) and after surgical release of the long head of the biceps (Brett Favre). If conservative measures fail, the pathology can be addressed by releasing the biceps tendon alone (biceps tenotomy) or releasing the biceps tendon and reattaching to surrounding soft tissues or bone (biceps tenodesis). Tenodesis may be performed arthroscopically or via an open approach depending on surgeon preference. The decision to proceed with biceps tenotomy or tenodesis is determined by patient preference after discussion with your surgeon.



Biceps Tenotomy		Biceps Tenodesis
• Risk of mild cosmetic deformity • Less surgical time • Faster recovery/less postoperative restrictions	• No difference in patient satisfaction • No difference in elbow flexion strength • No difference in forearm supination strength	• Less risk of cosmetic deformity • Increased surgical time • Small but increased risk of surgical complication including nerve injury, possible humeral fracture • Longer recovery/more postoperative restrictions