Regence Oregon and Utah | Regence Idaho and select counties of Washington

Medical Policy Manual Surgery, Policy No. 228

Shoulder Surgeries

Effective: March 1, 2023

Next Review: December 2023
Last Review: February 2023

IMPORTANT REMINDER

Medical Policies are developed to provide guidance for members and providers regarding coverage in accordance with contract terms. Benefit determinations are based in all cases on the applicable contract language. To the extent there may be any conflict between the Medical Policy and contract language, the contract language takes precedence.

PLEASE NOTE: Contracts exclude from coverage, among other things, services or procedures that are considered investigational or cosmetic. Providers may bill members for services or procedures that are considered investigational or cosmetic. Providers are encouraged to inform members before rendering such services that the members are likely to be financially responsible for the cost of these services.

DESCRIPTION

Shoulder pathology is a common indication and can be treated through surgical and non-surgical methods. Depending on the severity and location of the pathology, a variety of surgical methods may be indicated.

MEDICAL POLICY CRITERIA

Notes: This policy only applies to certain member contracts. Please check the preauthorization website for the member contract to confirm requirements.

I. Rotator cuff repair may be considered **medically necessary** when all of the following Criteria are met (A.-D.):

   A. Documentation of function-limiting pain (e.g., loss of shoulder function which interferes with the ability to carry out activities of daily living and/or demands of employment); and

   B. Either of the following criteria are met:

      1. Failure to respond to at least three months of non-surgical management which includes documentation of physical therapy or prescribed home exercise program and one or more of the following unless contraindicated:

a. Trial of anti-inflammatory medication;

b. Cortisone injection;

2. The patient suffers from a discrete traumatic event that results in an acute full-thickness rotator cuff tear and has associated function limiting pain; and

C. Individual meets all of the following Criteria (1. and 2.) on physical examination when compared to the non-involved side:

1. Either of the following:

a. Functionally limited active range of motion; or

b. Measurable loss of strength of the rotator cuff musculature; and

2. One or more of the following positive orthopedic tests/signs:

a. Drop Arm Test; or

b. Painful Arc Test; or

c. Jobe or Empty Can Test; or

d. External Rotation Lag Sign (Dropping Sign); or

e. Internal Rotation Lag Sign; or

f. Lift-Off Test; or

g. Bear Hug Test; or

h. Belly-Press Test (Napoleon); or

i. Belly-Off Test; or

j. Neer Impingement Test; or

k. Hawkins-Kennedy Impingement; or

l. Hornblower Test (Patte); and

D. Advanced diagnostic imaging study (e.g., MRI, CT) demonstrates a partial-thickness rotator cuff tear or a full-thickness rotator cuff tear that correlates with the individual's reported symptoms and physical exam findings.

II. Labral repair with or without capsulorrhaphy may be considered **medically necessary** when all of the following Criteria are met (A.-D.):

A. Documentation of function-limiting pain (e.g., loss of shoulder function which interferes with the ability to carry out activities of daily living and/or demands of employment); and

B. Failure to respond to at least three months of non-surgical management which includes documentation of physical therapy or prescribed home exercise program and one or more of the following unless contraindicated:

1. Trial of anti-inflammatory medication; or

2. Cortisone injection; and

C. Advanced diagnostic imaging study (e.g., MRI, CT) demonstrates labral tear (e.g., SLAP, Bankart) and correlates with the individual's reported symptoms and physical exam findings; and

D. All of the following are met (1. and 2.) based on physical examination when compared to the non-involved side:

1. Normal or minimally limited active or passive shoulder range of motion; and
2. One or more of the following positive orthopedic tests:
    a. O'Brien's Test; or
    b. Biceps Load Test; or
    c. Clunk Test; or
    d. Anterior Slide Test; or
    e. Compression Rotation Test; or
    f. Speed's Test; or
    g. Modified dynamic labral shear.

III. Arthroscopic capsular release, lysis of adhesions, or manipulation under anesthesia for may be considered **medically necessary** when all of the following criteria are met (A.-D.):

A. Documentation of chronic refractory adhesive capsulitis or arthrofibrosis which has resulted from disease, injury, or surgery; and

B. Documentation of function-limiting pain (e.g., loss of shoulder function which interferes with the ability to carry out activities of daily living and/or demands of employment); and

C. Functionally limited and painful global loss of active and passive range of motion of at least 50% when compared to the non-involved side; and

D. Failure to respond to at least three months of non-surgical management including at least two months of physical therapy and one or more of the following unless contraindicated:

1. Trial of anti-inflammatory medication; or
2. Cortisone injection.

IV. Distal clavicle excision may be considered **medically necessary** when all of the following criteria are met (A.-E.):

A. Documentation of localized tenderness to palpation of the acromioclavicular (AC) joint; and

B. Documentation of function-limiting pain (e.g., loss of shoulder function which interferes with the ability to carry out activities of daily living and/or demands of employment); and

C. Documentation of one or more of the following positive orthopedic tests on physical examination when compared to the non-involved side:

    a. Cross Body Adduction Test; or

b. Resisted AC Joint Extension Test; or

c. Neer Impingement Test; or

d. Hawkins-Kennedy Impingement Test; and

D. Failure to respond to at least three months of non-surgical management which includes documentation of physical therapy or prescribed home exercise program and one or more of the following unless contraindicated:

1. Trial of anti-inflammatory medication; or
2. Cortisone injection; and

E. Documentation of either of the following imaging results:

1. When associated with subacromial decompression or acromioplasty surgery, plain radiographs demonstrate findings consistent with pathology in the subacromial space and/or at the AC joint; or
2. For all other clinical scenarios, advanced diagnostic imaging study (e.g., MRI, CT) demonstrates underlying pathology (e.g., AC joint arthritis, impingement, etc.) which correlates with the individual's reported symptoms and physical exam findings.

V. Subacromial decompression or acromioplasty may be considered **medically necessary** as an add-on procedure only when performed with other medically necessary primary shoulder surgical procedures and Criteria IV.B.-E. are met.

VI. Biceps tenodesis may be considered **medically necessary** when all of the following Criteria are met (A.-D.):

A. Documentation of function-limiting pain (e.g., loss of shoulder function which interferes with the ability to carry out activities of daily living and/or demands of employment); and

B. Failure to respond to at least three months of non-surgical management which includes documentation of physical therapy or prescribed home exercise program and one or more of the following unless contraindicated:

1. Trial of anti-inflammatory medication; or
2. Cortisone injection; and

C. Advanced diagnostic imaging study (e.g., MRI, CT) demonstrates labral tear/biceps tendon pathology (e.g., SLAP, Bankart, full-thickness subscapularis tear) and correlates with the individual's reported symptoms and physical exam findings; and

D. All of the following are present on physical examination when compared to the non-involved side:

1. Normal or minimally limited active or passive shoulder range of motion; and
2. Documentation of one or more of the following positive orthopedic tests:

a. O'Brien's Test; or

b. Biceps Load Test; or

c. Clunk Test; or

d. Anterior Slide Test; or
e. Compression Rotation Test; or
f. Speed's Test; or
g. Upper cut test; or
h. Popeye sign; or
i. Yergason's test; or
j. Proximal biceps (groove) tenderness.

VII. Removal of subdeltoid calcareous deposits may be considered **medically necessary** when all of the following criteria are met (A.-C.):
   A. Documentation of function-limiting pain (e.g., loss of shoulder function which interferes with the ability to carry out activities of daily living and/or demands of employment); and
   B. Failure to respond to at least three months of non-surgical management which includes documentation of physical therapy or prescribed home exercise program and one or more of the following unless contraindicated:
      1. Trial of anti-inflammatory medication; or
      2. Cortisone injection; and
   C. Advanced diagnostic imaging study (e.g., MRI, CT) is conclusive for the presence of a loose body or foreign body within the shoulder joint.

VIII. Rotator cuff repair is considered **not medically necessary** in all other scenarios including but not limited to when Criterion I. is not met.

IX. Labral repair with or without capsulorrhaphy is considered **not medically necessary** in all other scenarios including but not limited to when Criterion II. is not met.

X. Arthroscopic capsular release, lysis of adhesions, or manipulation under anesthesia is considered **not medically necessary** in all other scenarios including but not limited to when Criterion III. is not met.

XI. Distal clavicle excision is considered **not medically necessary** in all other scenarios including but not limited to when Criterion IV. is not met.

XII. Subacromial decompression or acromioplasty is considered **not medically necessary** in all other scenarios including but not limited to when Criterion V. is not met or as a stand-alone procedure.

XIII. Biceps tenodesis is considered **not medically necessary** in all other scenarios including but not limited to when Criterion VI. is not met.

XIV. Removal of subdeltoid calcareous deposits is considered **not medically necessary** in all other scenarios including but not limited to when Criterion VII. is not met.

NOTE: A summary of the supporting rationale for the policy criteria is at the end of the policy.

LIST OF INFORMATION NEEDED FOR REVIEW

REQUIRED DOCUMENTATION:

The information below **must** be submitted for review to determine whether policy criteria are met. If any of these items are not submitted, it could impact our review and decision outcome.

- History and physical/chart notes
- Non-surgical management provided
- Diagnostic imaging reports
- Documentation of function-limiting pain
- Applicable physical examination findings including but not limited to orthopedic tests performed, pain scale(s), range of motion, and/or loss of strength.

CROSS REFERENCES

None

BACKGROUND

According to The American Academy of Orthopaedic Surgeons:[1]

> Shoulder disease is a major cause of musculoskeletal disability in the United States. Chronic shoulder pain has been estimated to affect approximately 8% of all American adults, second only to chronic knee pain in our society's burden of musculoskeletal disease. Rotator cuff pathology is the leading cause of shoulder-related disability seen by orthopaedic surgeons, and surgical volume is on the rise. One study, for example, notes a 141% increase in rotator cuff repairs from 1996 to 2006 in the United States. Societal costs of a medical condition include direct and indirect costs. Direct costs are those associated with diagnosis and treatment, whereas indirect costs include lost income due to inability to work or lower wages, missed workdays, and disability payments. Approximately 4.5 million patient visits related to shoulder pain occur each year in the United States.

EVIDENCE SUMMARY

Systematic reviews (SRs) have evaluated the accumulated evidence for the shoulder procedures addressed in this policy. Therefore this evidence review focuses on the most recent systematic reviews.

ROTATOR CUFF REPAIR

Systematic Reviews

Longo (2021) published a systematic review comparing conservative therapy and surgical management in patients with rotator cuff tears.[2] The primary outcomes were Constant-Murley score (CMS) and visual analog scale (VAS) pain scores. Six studies were included in the review and the average CMS score at 12 months of follow up was 77.6 in the surgery group and 72.8 in the conservative group. The mean of VAS pain score at 12 months of follow-up was 1.4 ± 1.6 in the surgery group and 2.4 ± 1.9 in the conservative group. Quantitative synthesis showed better results in favor of the surgical group in terms of VAS pain score one year after surgery (- 1.08, 95% CI - 1.58 to - 0.58; $p<0.01$).

Ryosa (2017) published a systematic review to assess the evidence on effectiveness of surgical repair or conservative treatment for rotator cuff tears.[3] Three RCTs were included involving 252 patients with primary outcomes of pain and function scores. At one year follow, there was no significant difference in constant scores but there was a significant difference in VAS score in the surgery group. The authors concluded that conservative management should be the first line therapy in patients with rotator cuff tears and that surgery plays an important role for those who fail conservative management.

Gombera (2014) published a systematic review of rotator cuff repairs and glenohumeral instability to better understand when surgery is indicated and what type of procedure should be performed.[4] The authors included 11 studies evaluating patients with rotator cuff tears resulting from shoulder dislocations. Across the included studies, surgical repair of the rotator cuff resulted in improved pain relief and patient satisfaction when compared to conservative therapy.

Section Summary

There is enough research to show that surgical repair of the rotator cuff can be a safe and effective treatment option in patients where conservative management has failed. It is important that conservative management is attempted as it may provide similar outcomes in pain and function scores in certain patient populations. For those who failed conservative management, surgical repair can play an important role in treatment.

LABRAL REPAIR

Systematic Reviews

Civan (2021) published a review of the treatment of SLAP tears to determine which modality was most effective in different clinical scenarios.[5] Six studies were included and SLAP repair and BT were the two primary surgeries that were compared. The use of BT showed superior results in four of the six studies but the difference was not statistically significant. Additionally, functional scoring outcomes were not statistically significant between groups. Overall, the return to report and previous level were higher in the BT group. The authors concluded that both surgical treatments may be effective in repairing SLAP tears, reducing pain, and improving function.

De Sa (2020) published a systematic review comparing labral repairs and biceps tenodesis (BT) for the management of SLAP tears across 23 studies. Isolated type II SLAP tears were treated via SLAP repair in 781 patients with a mean age of 35 years and a mean postoperative follow-up of 35 months. BT was performed in 100 patients with a mean age of 44 years and a mean postoperative follow-up of 32 months. Similar postoperative scores were noted in both the SLAP repair and BT groups for American Shoulder and Elbow Surgeons, Constant, UCLA, and VAS pain scores. The authors concluded that both SLAP repairs and BT are acceptable treatments for type II SLAP tears and that labral repair remains the most commonly performed procedure for this indication.

Gorantla (2010) published a systematic review of arthroscopic repair of type II SLAP lesions in patients with a minimum of two years of follow-up.[6] Of the included studies, the percentage of good and excellent results ranged from 40-94% and return to previous level of play ranged from 20%-94% with overhead athletes being the most challenging population to return to previous levels. The authors concluded that arthroscopic repair of type II slap lesions resulted

in overall excellent results for those not involved in overhead sports, which were much less predictable.

Section Summary

There is enough research to show that surgical repair of labral tears is a safe and effective treatment option for SLAP lesions or tears. The procedure has a good safety profile and allows patients to return to prior functioning with reduced pain. BT may be an effective alternative treatment method in certain populations.

ARTHROSCOPIC CAPSULAR RELEASE, LYSIS OF ADHESIONS, MANIPULATION UNDER ANESTHESIA

Systematic Reviews

Rex (2021) published a systematic review evaluating nine RCTs in patients with primary frozen shoulder.[7] The review compared the effectiveness of pre-specified physiotherapy techniques with a steroid injection (PTSI), manipulation under anesthesia (MUA) with a steroid injection, and arthroscopic capsular release (ACR). Results from the analysis showed the following comparisons between treatment types: ACR versus MUA: 0.21 (95% CI 0.00 to 0.42), ACR versus supportive care: -0.13 (95% CI -1.10 to 0.83), and ACR versus PTSI: 0.33 (95% CI 0.07 to 0.59) and 0.25 (95% CI -0.34 to 0.85), all favoring ACR; MUA versus supportive care: 0 (95% CI -0.44 to 0.44); and MUA versus PTSI: 0.12 (95% CI -0.14 to 0.37) favoring MUA. These results indicate that there is no clinically superior treatment option between ACR, MUA, and PTSI and all may serve an important clinical use.

Forsythe (2021) published a review on the efficacy of arthroscopic shoulder surgery for the treatment of adhesive capsulitis.[8] A total of 66 studies were included with comparisons across a variety of interventions including physical therapy, shoulder injections, MUA, and ACR. A network meta-analysis demonstrated that ACR was the most effective treatment for increasing range of motion. Additionally, the most effective interventions for functional status were PT, MUA, injections, and ACR. There is no single treatment method that emerges as superior in regards to outcomes like ROM, pain, and functional status. Surgical techniques including ACR and MUA were effective in improving pain and ROM when conservative management failed.

Section Summary

There is enough research to show that arthroscopic capsular release, lysis of adhesions, and manipulation under anesthesia are safe and effective treatment options for frozen shoulder when conservative management fails. There is no clinically superior option for all scenarios although each of them has shown efficacy in reducing pain and improving range of motion.

DISTAL CLAVICLE EXCISION

Systematic Reviews

According to a review by Rabalais (2007), excision of the distal clavicle has become a standard surgical treatment option for AC joint arthritis and osteolysis refractory to conservative therapy.[9] The review assessed whether other treatment options such as direct (superior) arthroscopic excision or indirect (bursal) arthroscopic excision provided superior results compared to distal clavicle excision. The literature supports surgical excision, but the reports are all Level III or IV evidence consisting largely of retrospective case series.

Arthroscopic distal clavicle resection has provided more "good or excellent" results than has the open procedure. Distal clavicle resection has provided satisfactory results when combined with other procedures.

SUBACROMIAL DECOMPRESSION AND ACROMIOPLASTY

Systematic Reviews

A Cochrane review of subacromial decompression surgery for rotator cuff disease was published in 2019 reviewing the benefits and harms of the procedure.[10] A total of eight trials were included with 1,062 patients with subacromial impingement. Two trials (506 participants) compared arthroscopic subacromial decompression with arthroscopy only (placebo surgery), with all groups receiving postoperative exercises. These trials included a third treatment group: no treatment (active monitoring) in one and exercises in the other. Six trials (556 participants) compared arthroscopic subacromial decompression followed by exercises with exercises alone. Two of these trials included a third arm: sham laser in one and open subacromial decompression in the other. Trial size varied from 42 to 313 participants. Participant mean age ranged between 42 and 65 years. Only two trials reported mean symptom duration (18 to 22 months in one trial and 30 to 31 months in the other), two did not report duration and four reported it categorically. Both placebo-controlled trials were at low risk of bias for the comparison of surgery versus placebo surgery. The other trials were at high risk of bias for several criteria, most notably at risk of performance or detection bias due to lack of participant and personnel blinding.

Compared with placebo, high-certainty evidence indicates that subacromial decompression provides no improvement in pain, shoulder function, or health-related quality of life up to one year, and probably no improvement in global success (moderate-certainty evidence, downgraded due to imprecision). At one year, mean pain (on a scale zero to 10, higher scores indicate more pain), was 2.9 points after placebo surgery and 0.26 better (0.84 better to 0.33 worse), after subacromial decompression (284 participants), an absolute difference of 3% (8% better to 3% worse), and relative difference of 4% (12% better to 5% worse). At one year, mean function (on a scale 0 to 100, higher score indicating better outcome), was 69 points after placebo surgery and 2.8 better (1.4 worse to 6.9 better), after surgery (274 participants), an absolute difference of 3% (7% better to 1% worse), and relative difference of 9% (22% better to 4% worse). Global success rate was 97/148 (or 655 per 1000), after placebo and 101/142 (or 708 per 1000) after surgery corresponding to RR 1.08 (95% CI 0.93 to 1.27). Health-related quality of life was 0.73 units (European Quality of Life EQ-5D, -0.59 to 1, higher score indicating better quality of life), after placebo and 0.03 units worse (0.011 units worse to 0.06 units better), after subacromial decompression (285 participants), an absolute difference of 1.3% (5% worse to 2.5% better), and relative difference of 4% (15% worse to 7% better).

Adverse events including frozen shoulder or transient minor complications of surgery were reported in approximately 3% of participants across treatment groups in two randomized controlled trials, but due to low event rates we are uncertain if the risks differ between groups: 5/165 (37 per 1000) reported adverse events with subacromial decompression and 9/241 (34 per 1000) with placebo or non-operative treatment, RR 0.91 (95% CI 0.31 to 2.65) (moderate-certainty evidence, downgraded due to imprecision). The trials did not report serious adverse events. Based upon moderate-certainty evidence from two observational trials from the same prospective surgery registry, which also included other shoulder arthroscopic procedures (downgraded for indirectness), the incidence proportion of serious adverse events within 30

days following surgery was 0.5% (0.4% to 0.7%; data collected 2006 to 2011), or 0.6% (0.5 % to 0.7%; data collected 2011 to 2013). Serious adverse events such as deep infection, pulmonary embolism, nerve injury, and death have been observed in participants following shoulder surgery.

Section Summary

There is enough evidence to show that subacromial decompression as a standalone procedure in the treatment of rotator cuff pathology, including but not limited to subacromial impingement, does not result in improved health outcomes and may be of harm to patients undergoing the treatment. The use of subacromial decompression may be used as an adjunct procedure during other treatments for rotator cuff pathology such as tears, but not as a standalone procedure.

BICEPS TENODESIS

Systematic Reviews

Creech (2016) published a systematic review on the surgical indications for biceps tenodesis which included 39 studies.[11] The most common indications for long head biceps tenodesis were partial tearing, instability, tenosynovitis, labral tear, or general positive clinical exams for long head biceps pain.

Frantz (2021) published a systematic review on the use of biceps tenodesis for superior labrum anterior-posterior tears in overhead athletes.[12] A total of eight articles were included and type II SLAP tears were the most common diagnosis. Combined reported postoperative functional scores were as follows: American Shoulder and Elbow Surgeons, 81.7 to 97; 12-Item Short Form Health Survey physical, 50 to 54; visual analog scale for pain, 0.8-1.5; Kerlan Jobe Orthopaedic Clinic, 66 to 79; and satisfaction, 80% to 87%. The overall return-to-sports rate for overhead athletes was 70%. For studies that clearly delineated outcomes based on level of play/athlete, the combined return-to-sports rate was 69% for recreational overhead athletes, 80% for competitive/collegiate athletes, and 60% for professionals. The authors concluded that biceps tenodesis in the overhead athlete has important functional and return to play outcomes.

Belk (2021) published a systematic review comparing biceps tenodesis to tenotomy in five RCTs including 236 patients.[13] No differences in Constant-Murley, visual analog scale, or American Shoulder and Elbow Surgeons scores were found between groups in any study, and of all the studies evaluating strength and range of motion at latest follow-up, only 1 found a significant difference between groups, in which tenodesis patients demonstrated significantly increased forearm supination strength (P = .02). One study found tenodesis patients to experience significantly more biceps cramping at six-month follow-up compared with tenotomy patients (P = .04), although no differences in complication rates at latest follow-up were found in any study. The study concluded that treatment of these pathologies with either surgical technique can lead to similar improvements in patient-reported and functional outcomes.

Section Summary

There is enough research to show that biceps tenodesis is a safe and effective treatment option for different shoulder pathologies including SLAP tears and long head biceps tearing, pain, and/or instability when conservative management fails. The shoulder joint and treatments

of pathologies in this area are complex and have a variety of clinically successful outcomes that should consider the unique anatomy and pathology of each scenario.

PRACTICE GUIDELINE SUMMARY

American Academy of Orthopaedic Surgeons[1]

The American Academy of Orthopaedic Surgeons (AAOS) guidelines for the management of rotator cuff injuries provides moderate to strong recommendation based on the depth and quality of evidence for the following shoulder procedures: physical therapy and surgical management including acromioplasty, cuff repair, distal clavicle resection, and corticosteroid injections. The recommendations were established using methods of evidence-based medicine that rigorously control for bias, enhance transparency, and promote reproducibility.

The guidelines state that the “summary of recommendations is not intended to stand alone. Medical care should be based on evidence, a physician's expert judgment, and the patient's circumstances, values, preferences, and rights. For treatment procedures to provide benefit, mutual collaboration with shared decision making between patient and physician/allied healthcare provider is essential.”

The guidelines define a strong recommendation as meaning that the quality of the supporting evidence is high and a moderate recommendation as meaning that the benefits exceed the potential harm (or that the potential harm clearly exceeds the benefits in the case of a negative recommendation), but the quality/applicability of the supporting evidence is not as strong.

SUMMARY

The current research for rotator cuff repair has shown improvement in health outcomes resulting in reduced pain and improved function in select patients. Therefore, rotator cuff surgery is considered medically necessary in patients who meet the policy criteria. In those patients who don’t meet policy criteria, rotator cuff repair is considered not medically necessary.

The current research for labral tear repair has shown improvement in health outcomes resulting in reduced pain and improved function in select patients. Therefore, labral repair surgery is considered medically necessary in patients who meet the policy criteria. In those patients who don’t meet policy criteria, labral repair is considered not medically necessary.

The current research for arthroscopic capsular release, lysis of adhesions, or manipulation under anesthesia for treatment of shoulder pathologies has shown improvement in health outcomes resulting in reduced pain and improved function in select patients. Therefore, arthroscopic capsular release, lysis of adhesions, or manipulation under anesthesia is considered medically necessary in patients who meet the policy criteria. In those patients who don’t meet policy criteria, arthroscopic capsular release, lysis of adhesions, or manipulation under anesthesia is considered not medically necessary.

The current research for distal clavicle excision for AC joint pathology has shown improvement in health outcomes resulting in reduced pain and improved function in select patients. Therefore, distal clavicle excision is considered medically necessary in patients

who meet the policy criteria. In those patients who don't meet policy criteria, distal clavicle excision is considered not medically necessary.

Subacromial decompression or acromioplasty may be considered medically necessary as an add-on procedure only when performed with other medically necessary primary shoulder surgical procedures and policy criteria are met. Subacromial decompression or acromioplasty is considered not medically necessary when policy criteria are not met or as a standalone procedure.

The current research for biceps tenodesis has shown improvement in health outcomes resulting in reduced pain and improved function in select patients. Therefore, biceps tenodesis is considered medically necessary in patients who meet the policy criteria. In those patients who don't meet policy criteria, biceps tenodesis is considered not medically necessary.

Subdeltoid calcareous deposit removal can result in improved health outcomes in select populations. Therefore, subdeltoid calcareous deposit removal is considered medically necessary in patients who meet the policy criteria. In those patients who don't meet policy criteria, subdeltoid calcareous deposit removal is considered not medically necessary.

REFERENCES

1. Weber S, Chahal J. Management of Rotator Cuff Injuries. *J Am Acad Orthop Surg.* 2020;28(5):e193-e201. PMID: 31599763
2. Longo UG, Risi Ambrogioni L, Candela V, et al. Conservative versus surgical management for patients with rotator cuff tears: a systematic review and META-analysis. *BMC Musculoskelet Disord.* 2021;22(1):50. PMID: 33419401
3. Ryösä A, Laimi K, Äärimaa V, et al. Surgery or conservative treatment for rotator cuff tear: a meta-analysis. *Disabil Rehabil.* 2017;39(14):1357-63. PMID: 27385156
4. Gombera MM, Sekiya JK. Rotator cuff tear and glenohumeral instability : a systematic review. *Clin Orthop Relat Res.* 2014;472(8):2448-56. PMID: 24043432
5. Civan O, Bilsel K, Kapicioglu M, et al. Repair versus biceps tenodesis for the slap tears: A systematic review. *J Orthop Surg (Hong Kong).* 2021;29(2):23094990211004794. PMID: 33882738
6. Gorantla K, Gill C, Wright RW. The outcome of type II SLAP repair: a systematic review. *Arthroscopy.* 2010;26(4):537-45. PMID: 20362836
7. Rex SS, Kottam L, McDaid C, et al. Effectiveness of interventions for the management of primary frozen shoulder : a systematic review of randomized trials. *Bone Jt Open.* 2021;2(9):773-84. PMID: 34555926
8. Forsythe B, Lavoie-Gagne O, Patel BH, et al. Efficacy of Arthroscopic Surgery in the Management of Adhesive Capsulitis: A Systematic Review and Network Meta-analysis of Randomized Controlled Trials. *Arthroscopy.* 2021;37(7):2281-97. PMID: 33221429
9. Rabalais RD, McCarty E. Surgical treatment of symptomatic acromioclavicular joint problems: a systematic review. *Clin Orthop Relat Res.* 2007;455:30-7. PMID: 17159577
10. Karjalainen TV, Jain NB, Page CM, et al. Subacromial decompression surgery for rotator cuff disease. *Cochrane Database Syst Rev.* 2019;1(1):Cd005619. PMID: 30707445

11. Creech MJ, Yeung M, Denkers M, et al. Surgical indications for long head biceps tenodesis: a systematic review. *Knee Surg Sports Traumatol Arthrosc.* 2016;24(7):2156-66. PMID: 25416963
12. Frantz TL, Shacklett AG, Martin AS, et al. Biceps Tenodesis for Superior Labrum Anterior-Posterior Tear in the Overhead Athlete: A Systematic Review. *Am J Sports Med.* 2021;49(2):522-28. PMID: 32579853
13. Belk JW, Kraeutler MJ, Houck DA, et al. Biceps tenodesis versus tenotomy: a systematic review and meta-analysis of level I randomized controlled trials. *J Shoulder Elbow Surg.* 2021;30(5):951-60. PMID: 33373685

CODES

Codes	Number	Description
CPT	23000	Removal of subdeltoid calcareous deposits, open
	23020	Capsular contracture release (eg, Sever type procedure)
	23120	Claviculectomy; partial
	23130	Acromioplasty or acromionectomy, partial, with or without coracoacromial ligament release
	23410	Repair of ruptured musculotendinous cuff (eg, rotator cuff) open; acute
	23412	Repair of ruptured musculotendinous cuff (eg, rotator cuff) open; chronic
	23420	Reconstruction of complete shoulder (rotator) cuff avulsion, chronic (includes acromioplasty)
	23430	Tenodesis of long tendon of biceps
	23440	Resection or transplantation of long tendon of biceps
	23455	Capsulorrhaphy, anterior; with labral repair (eg, Bankart procedure)
	23462	Capsulorrhaphy, anterior, any type; with coracoid process transfer
	23466	Capsulorrhaphy, glenohumeral joint, any type multi-directional instability
	23700	Manipulation under anesthesia, shoulder joint, including application of fixation apparatus (dislocation excluded)
	29806	Arthroscopy, shoulder, surgical; capsulorrhaphy
	29807	Arthroscopy, shoulder, surgical; repair of SLAP lesion
	29824	Arthroscopy, shoulder, surgical; distal claviculectomy including distal articular surface (Mumford procedure)
	29825	Arthroscopy, shoulder, surgical; with lysis and resection of adhesions, with or without manipulation
	29826	Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (i.e. arch) release when performed (List separately in addition to code for primary procedure)
	29827	Arthroscopy, shoulder, surgical; with rotator cuff repair
	29828	Arthroscopy, shoulder, surgical; biceps tenodesis
HCPCS	None	

Date of Origin: *December 2022*