

MEDICAL POLICY

Medical Policy Title	Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members
Policy Number	7.01.125
Current Effective Date	January 1, 2027
Next Review Date	September 2027

Our medical policies are guides to evaluate technologies or services for medical necessity. Criteria are established through the assessment of evidence based, peer-reviewed scientific literature, and national professional guidelines. Federal and state law(s), regulatory mandates and the member's subscriber contract language are considered first in the determination of a covered service.

(Link to [Product Disclaimer](#))

SECTION LINKS

[Shoulder Arthroplasty](#)

[Shoulder Arthroscopy](#)

[Shoulder Stabilization Procedures](#)

[Shoulder Synovial and Intra-Articular Procedures](#)

[Biceps Procedures](#)

[Acromial and Clavicular Procedures](#)

[Shoulder Reconstruction and Corrective Procedures](#)

POLICY STATEMENT(S)

Total Shoulder Arthroplasty

- I. Shoulder arthroplasty is not medically necessary for ANY of the following contraindications:
 - A. Material allergy incompatible with implantation;
 - B. Clinical instability or inadequately managed comorbid conditions;
 - C. Poor dentition requiring major dental intervention prior to arthroplasty;
 - D. Diabetes with HbA1c greater than 8%;
 - E. Nicotine or tobacco use, including cigars, cigarette, e-cigarette, nicotine pouch, smokeless tobacco, or vape pen, within 6 weeks of surgery;
 - F. Intra-articular corticosteroid injection within 12 weeks of surgery;
 - G. Untreated or unmanaged substance use disorder;
 - H. Uncontrolled hypertension;
 - I. Active local or systemic infection, including infection that is undergoing treatment or remains unresolved;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 2 of 39

- J. Neurologic conditions resulting in ONE (1) or more of the following:
 - 1. Charcot arthropathy;
 - 2. Complex regional pain syndrome (CRPS) or related CRPS variant; or
 - 3. Loss of deltoid or rotator cuff function;
- K. Shoulder arthroscopy of the affected shoulder within the preceding 12 weeks.

Total Shoulder Arthroplasty (TSA) or Resurfacing

- II. Total shoulder arthroplasty is medically necessary when ALL of the following are met:
 - A. Shoulder pain and dysfunction result in limitations of activities of daily living (ADLs);
 - B. Documentation supports ONE (1) of the following:
 - 1. Advanced glenohumeral joint disease confirmed by imaging studies (e.g., radiographs, CT, and/or MRI) demonstrating severe joint degeneration and joint space loss associated with ONE (1) of the following:
 - a. Degenerative arthritis or post-traumatic arthritis, including findings such as asymmetric joint space loss, glenoid wear, glenoid flattening, subchondral sclerosis, or cuff tear arthropathy; or
 - b. Inflammatory arthropathy, including rheumatoid arthritis, characterized by uniform joint space narrowing, erosive changes, synovitis, pannus formation, or cartilage loss;
 - 2. Prior osteotomy associated with persistent loss of shoulder function and range of motion;
 - 3. ALL the following conditions are present:
 - a. Adequate bone stock to support fixation of the prosthesis;
 - b. Intact deltoid function;
 - c. A reparable rotator cuff;
 - 4. EITHER criterion addressing conservative therapy is met:
 - a. No conservative therapy required for any of the following conditions:
 - i. Acute proximal humerus fracture not amenable to internal fixation, including displaced three- or four-part fractures, head-splitting fractures, or complex fracture-dislocations;
 - ii. Osteonecrosis (avascular necrosis) of the humeral head with collapse;
 - iii. End-stage glenohumeral arthritis with bone-on-bone articulation identified on radiographs; or

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 3 of 39

- iv. Primary or metastatic malignancy involving the shoulder joint or adjacent soft tissues;

OR

- b. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - i. Non-pharmacologic management with either:
 - a) Chiropractic care; or
 - b) Supervised physical therapy (PT); and
 - ii. Pharmacological management with either:
 - a) Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b) Oral analgesics;

C. Site of service requirements are met:

- 1. Outpatient, when ANY of the following are met:
 - a. American Society of Anesthesiologists (ASA) Physical Status Classification I or II;
 - b. No active cardiopulmonary disease; and
 - c. No history of chronic narcotic use; or
- 2. Inpatient, when ANY of the following perioperative risk factors are present:
 - a. Lack of an available caregiver during the immediate postoperative period;
 - b. Home circumstances that are not appropriate for safe postoperative recovery;
 - c. Geographic barriers limiting timely access to urgent medical care;
 - d. ASA Physical Status Classification III or greater;
 - e. Clinically significant bleeding risk, including coagulopathy, thrombocytopenia, abnormal coagulation studies, unreversed anticoagulation therapy, or a history of significant bleeding complications;
 - f. Advanced or unstable cardiopulmonary disease;
 - g. Stage 4 or stage 5 chronic kidney disease, end-stage renal disease, or significant renal impairment demonstrated by:
 - i. Dialysis dependence;
 - ii. eGFR less than 30 mL/min/1.73 m² within the previous 30 days; or
 - iii. Serum creatinine greater than 3 mg/dL within the previous 30 days;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 4 of 39

- h. Myocardial infarction within the previous six (6) months;
- i. Protein-calorie malnutrition with serum albumin of 3.5 g/dL or less within the previous 30 days;
- j. Concomitant major procedures, including extensive bone grafting or corrective osteotomy;
- k. Difficult implant extraction requiring osteotomy or extensive cement removal;
- l. Major bone loss or structural deficiency requiring reconstruction;
- m. Planned staged revision procedure;
- n. Anticipated need for close postoperative observation due to elevated instability risk; or Monitoring requirements that cannot be safely accommodated in an outpatient setting;
- o. Dependence in two (2) or more basic activities of daily living.

Reverse Total Shoulder Arthroplasty (RTSA)

III. Reverse total shoulder arthroplasty is medically necessary when ALL the following are met:

- A. Shoulder dysfunction results in limitations of activities of daily living (ADLs);
- B. Documentation supports ONE(1) of the following:
 - 1. Advanced glenohumeral joint degeneration demonstrated by imaging studies (e.g., radiographs, CT, and/or MRI) with severe joint space loss associated with:
 - a. Degenerative or post-traumatic arthritis; or
 - b. Inflammatory arthropathy, including rheumatoid arthritis;
 - 2. Massive irreparable rotator cuff pathology, including substantial partial-thickness or full-thickness tearing associated with significant loss of shoulder function;
 - 3. Persistent severe pain following prior rotator cuff repair failure;
 - 4. Failure of a prior total shoulder arthroplasty in the setting of an irreparable rotator cuff deficiency;
 - 5. Either criterion addressing conservative therapy is met:
 - a. No conservative therapy required for any of the following conditions:
 - i. Acute proximal humerus fracture, including two-part, three-part, or four-part fracture patterns, with or without associated tuberosity involvement;
 - ii. Symptomatic malunion of a proximal humerus fracture associated with rotator cuff dysfunction;
 - iii. Primary or metastatic malignancy involving the glenohumeral joint or adjacent

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 5 of 39

soft tissues;

- iv. Bone-on-bone glenohumeral degeneration identified on radiographs, CT, or MRI; or
- v. End-stage glenohumeral arthritis (Kellgren-Lawrence Grade IV);

OR

- b. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - i. Non-pharmacologic management with either:
 - a) Chiropractic care; or
 - b) Supervised physical therapy (PT); and
 - ii. Pharmacological management with either:
 - a) Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b) Oral analgesics;
- C. Glenoid bone loss, bone deficiency, or structural compromise that limits the ability to support a conventional glenoid component;
- D. Preserved deltoid muscle function;
- E. Painful loss of shoulder motion resulting in pseudoparalysis, demonstrated by inability to actively elevate the arm to 90 degrees without assistance;
- F. Imaging demonstrates advanced structural shoulder disease, including ONE(1) or more of the following:
 - 1. Bone-on-bone glenohumeral articulation;
 - 2. Complete or near-complete joint space loss; or
 - 3. Significant osseous deformity involving the glenohumeral joint;
- G. Site of service requirements are met:
 - 1. Outpatient, when ANY of the following are met:
 - a. American Society of Anesthesiologists (ASA) Physical Status Classification I or II;
 - b. No active cardiopulmonary disease; and
 - c. No history of chronic narcotic use; or
 - 2. Inpatient, when ANY of the following perioperative risk factors are present:
 - a. Lack of an available caregiver during the immediate postoperative period;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 6 of 39

- b. Home circumstances that are not appropriate for safe postoperative recovery; or
- c. Geographic barriers limiting timely access to urgent medical care;
- d. ASA Physical Status Classification III or greater;
- e. Clinically significant bleeding risk, including coagulopathy, thrombocytopenia, abnormal coagulation studies, unreversed anticoagulation therapy, or a history of significant bleeding complications;
- f. Advanced or unstable cardiopulmonary disease;
- g. Stage 4 or stage 5 chronic kidney disease, end-stage renal disease, or significant renal impairment demonstrated by:
 - iii. Dialysis dependence;
 - iv. eGFR less than 30 mL/min/1.73 m² within the previous 30 days; or
 - v. Serum creatinine greater than 3 mg/dL within the previous 30 days;
- h. Myocardial infarction within the previous six (6) months;
- i. Protein-calorie malnutrition with serum albumin of 3.5 g/dL or less within the previous 30 days;
- j. Concomitant major procedures, including extensive bone grafting or corrective osteotomy;
- k. Difficult implant extraction requiring osteotomy or extensive cement removal;
- l. Major bone loss or structural deficiency requiring reconstruction;
- m. Planned staged revision procedure;
- n. Anticipated need for close postoperative observation due to elevated instability risk; or Monitoring requirements that cannot be safely accommodated in an outpatient setting;
- o. Dependence in two (2) or more basic activities of daily living.

IV. Revision of a prior shoulder arthroplasty is medically necessary when ALL the following are met:

- A. Functional impairment of the affected shoulder that interferes with ADLs and/or IADLs;
- B. No active or inadequately treated joint infection; and
- C. ONE(1) or more of the following prosthesis-related complications:
 - 1. Recurrent instability, dislocation, or subluxation;
 - 2. Periprosthetic infection requiring revision;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 7 of 39

3. Periprosthetic fracture;
 4. Aseptic component loosening;
 5. Osteolysis;
 6. Implant failure, component dysfunction, instability, or device recall; or
 7. Symptomatic synovitis or adverse local tissue reaction, including metallosis;
- D. Site of service requirements are met:
1. Outpatient, when ANY of the following are met:
 - a. American Society of Anesthesiologists (ASA) Physical Status Classification I or II;
 - b. No active cardiopulmonary disease; and
 - c. No history of chronic narcotic use; or
- E. Inpatient, when ANY of the following perioperative risk factors are present:
1. Lack of an available caregiver during the immediate postoperative period;
 2. Home circumstances that are not appropriate for safe postoperative recovery; or
 3. Geographic barriers limiting timely access to urgent medical care;
 4. ASA Physical Status Classification III or greater;
 5. Clinically significant bleeding risk, including coagulopathy, thrombocytopenia, abnormal coagulation studies, unreversed anticoagulation therapy, or a history of significant bleeding complications;
 6. Advanced or unstable cardiopulmonary disease;
 7. Stage 4 or stage 5 chronic kidney disease, end-stage renal disease, or significant renal impairment demonstrated by:
 - a. Dialysis dependence;
 - b. eGFR less than 30 mL/min/1.73 m² within the previous 30 days; or
 - c. Serum creatinine greater than 3 mg/dL within the previous 30 days;
 8. Myocardial infarction within the previous six (6) months;
 9. Protein-calorie malnutrition with serum albumin of 3.5 g/dL or less within the previous 30 days;
 10. Concomitant major procedures, including extensive bone grafting or corrective osteotomy;
 11. Difficult implant extraction requiring osteotomy or extensive cement removal;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 8 of 39

12. Major bone loss or structural deficiency requiring reconstruction;
13. Planned staged revision procedure;
14. Anticipated need for close postoperative observation due to elevated instability risk or monitoring requirements that cannot be safely accommodated in an outpatient setting;
15. Dependence in two (2) or more basic activities of daily living.

Hemiarthroplasty

V. Shoulder hemiarthroplasty is medically necessary when ALL the following are met:

- A. Shoulder dysfunction results in limitations of activities of daily living (ADLs);
- B. Documentation supports ONE (1) of the following:
 1. Advanced glenohumeral joint disease demonstrated by imaging studies (e.g., radiographs, CT, and/or MRI) with severe joint space loss associated with:
 - a. Degenerative arthritis;
 - b. Post-traumatic arthritis;
 - c. Inflammatory arthropathy, including rheumatoid arthritis
 - d. Massive irreparable partial-thickness rotator cuff pathology;
 - e. Full-thickness rotator cuff tear associated with significant functional deficit, including weakness and/or impingement symptoms; or
 - f. Structural joint destruction demonstrated by bone-on-bone articulation or osseous deformity;
 2. When ALL the following criteria are met:
 - a. Humeral bone quality or bone stock is inadequate to support stable internal fixation;
 - b. Preserved deltoid;
 - c. Rotator cuff function sufficient to support the planned procedure; and
 3. Either criterion addressing conservative therapy is met:
 - a. No conservative therapy required for any of the following conditions:
 - i. Osteonecrosis (avascular necrosis) of the humeral head with collapse;
 - ii. Acute proximal humerus fracture that is not amenable to internal fixation, including displaced three-part or four-part fractures, head-splitting fractures, or complex fracture-dislocations; or
 - iii. Primary or metastatic malignancy involving the glenohumeral joint or adjacent soft tissues;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 9 of 39

OR

- b. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - i. Non-pharmacologic management with either:
 - a) Chiropractic care;
 - b) Supervised physical therapy (PT); and
 - ii. Pharmacological management with either:
 - a) Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b) Oral analgesics.

Shoulder Arthroscopy

Diagnostic Shoulder Arthroscopy

VI. Diagnostic shoulder arthroscopy is medically necessary when ALL the following criteria are met:

- A. Alternative conditions that could reasonably account for the individual's symptoms have been excluded, including:
 - 1. Glenohumeral arthritis;
 - 2. Brachial plexus pathology;
 - 3. Fracture;
 - 4. Referred cervical pain; or
 - 5. Thoracic outlet syndrome;
- B. Persistent functional impairment as evidenced by both the following:
 - 1. Shoulder pain and functional limitations have been present for at least 6 months; and
 - 2. Symptoms interfere with activities of daily living (ADLs) or instrumental activities of daily living (IADLs);
- C. Clinical examination demonstrates abnormalities when compared with the unaffected shoulder, including ONE (1) or more of the following:
 - 1. Findings consistent with impingement syndrome;
 - 2. Restricted active or passive range of motion; or
 - 3. Measurable loss of strength;
- D. A minimum of 3 months of conservative management during the previous 6 months failed,

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 10 of 39

or was not tolerated, and includes BOTH of the following:

1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT); and
2. Pharmacological management with either:
 - a. Corticosteroid injection (intra-articular, subacromial, or bicipital groove); or
 - b. NSAIDs or oral analgesics;

E. Both radiographs and MRI have been performed and have not established a definitive diagnosis or explanation for the individual's symptoms.

VII. Rotator cuff repair is not medically necessary when ANY of the following are present:

- A. Advanced glenohumeral degenerative joint disease, including severe joint-space loss, bone-on-bone articulation, large osteophytes, subchondral sclerosis, or subchondral cyst formation (Kellgren-Lawrence grade II or greater);
- B. Full-thickness rotator cuff tear without associated symptoms;
- C. Medical or behavioral health conditions that are not adequately controlled or optimized for surgery;
- D. Corticosteroid injection into the operative shoulder within the preceding twelve (12) weeks;
- E. Deltoid paralysis or rotator cuff paralysis;
- F. Poorly controlled diabetes mellitus (HbA1c greater than 8%);
- G. Uncontrolled hypertension;
- H. Active local or systemic infection; or
- I. Nicotine or tobacco use within 6 weeks of the planned procedure, including cigarettes, cigars, smokeless tobacco, nicotine pouches, electronic cigarettes, or vaping devices.

VIII. Arthroscopic rotator cuff repair is medically necessary when ALL the following are met:

- A. Shoulder symptoms result in functional impairment affecting activities of daily living (ADLs) and/or instrumental activities of daily living (IADLs);
- B. Imaging confirms a rotator cuff tear, including partial-thickness tear; or full-thickness tear;
- C. Clinical findings are consistent with rotator cuff pathology, including BOTH the following:
 1. Reproducible pain patterns characteristic of rotator cuff disease; and
 2. Examination findings demonstrating rotator cuff dysfunction;
- D. Symptoms are consistent with shoulder impingement, including pain reproduced with

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 11 of 39

overhead activity and improvement with lowering of the arm;

E. EITHER of the following criteria addressing conservative management are met:

1. No conservative treatment is required when any of the following are present:

- a. Progressive enlargement of a full-thickness rotator cuff tear by 50% or more on serial imaging obtained at least 3 months apart; or
- b. Symptomatic traumatic rotator cuff tear with imaging demonstrating absence of glenohumeral arthritis;

OR

2. A minimum of 6 weeks of conservative management during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:

- a. Non-pharmacologic management with either:
 - i. Chiropractic care; or
 - ii. Supervised physical therapy (PT); and
- b. Pharmacological management with either:
 - i. Corticosteroid injection (intra-articular, subacromial, or bicipital groove); or
 - ii. NSAIDs or oral analgesics.

Revision Rotator Cuff Repair

IX. Revision rotator cuff repair is medically necessary when ALL the following are met:

- A. For revision procedures performed more than 1 year after the index repair, the request must satisfy the current rotator cuff repair medical necessity criteria;
- B. MRI or CT arthrography demonstrates ONE (1) of the following:
 1. Failure of tendon healing following prior repair (e.g., Sugaya Type IV or Type V); or
 2. Recurrent rotator cuff tear occurring more than 3 months after the original surgical procedure.

Anterior-Inferior Labral Repair (Bankart Repair)

X. Anterior-inferior labral repair is medically necessary when ALL the following are met:

- A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
- B. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;
- C. Comorbid conditions are appropriately managed and there is no active infection;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 12 of 39

- D. For individuals with diabetes mellitus, HbA1c is 8% or less;
- E. Presence of ONE (1) or more of the following:
 - 1. Combined labral pathology;
 - 2. Recurrent glenohumeral instability, including two (2) or more subluxation or dislocation episodes; or
 - 3. Acute shoulder pain associated with activity or exertion;
- F. MRI or CT arthrogram confirms an anterior-inferior labral tear or bony Bankart lesion;
- G. A minimum of 6 weeks of conservative management during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - a. Non-pharmacologic management with either:
 - i. Chiropractic care; or
 - ii. Supervised physical therapy (PT); and
 - b. Pharmacological management with either:
 - i. Corticosteroid injection (intra-articular, subacromial, or bicipital groove); or
 - ii. NSAIDs or oral analgesics;
- H. Physical examination reveals all the following:
 - 1. Absence of significant shoulder stiffness;
 - 2. Clinical evidence of instability;
 - 3. Restricted or abnormal range of motion; and
 - a. At least ONE(1) of the following:
 - i. Positive apprehension test;
 - ii. Positive relocation test;
 - iii. Positive labral grind test; or
 - iv. Objective painful laxity on examination.

Shoulder Capsulorrhaphy

- XI. Shoulder capsulorrhaphy is medically necessary when ALL the following are met:
 - A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
 - B. No Nicotine or tobacco, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 13 of 39

- C. Comorbid conditions are appropriately managed and there is no active local or systemic infection;
- D. For individuals with diabetes mellitus, HbA1c is 8% or less;
- E. Chronic shoulder stiffness resulting from ONE (1) of the following:
 - 1. Adhesive capsulitis; or
 - 2. Arthrofibrosis related to disease, injury, or prior surgery;
- F. A minimum of 3 months of conservative management during the previous 6 months failed, or was not tolerated, and includes the following:
 - 1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT);
 - 2. Pharmacological management with either:
 - a. Corticosteroid injection (intra-articular, subacromial, or bicipital groove); or
 - b. NSAIDs or oral analgesics;
- G. Physical examination demonstrates excessive glenohumeral joint translation, including ALL the following:
 - 1. Sulcus sign greater than 1 cm;
 - 2. Hyperabduction (Gagey) testing demonstrating greater than 105 degrees of abduction; and
 - 3. Beighton hypermobility score greater than 4;
- H. Shoulder dysfunction has been present for at least 3 months;
- I. Symptoms interfere with ADLs;
- J. Documentation supports ONE (1) of the following:
 - 1. History of shoulder trauma; or
 - 2. Postoperative shoulder contracture.

Shoulder Loose Body or Foreign Body Removal

XII. Removal of an intra-articular loose body or foreign body from the shoulder is medically necessary when ALL the following are met:

- A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
- B. No Nicotine or tobacco, including cigar, cigarette, e-cigarette, nicotine patch, smokeless

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 14 of 39

- tobacco or vape pen use within 6 weeks of surgery;
- C. Comorbid conditions are appropriately managed and there is no active infection;
- D. For individuals with diabetes mellitus, HbA1c is 8% or less;
- E. Documentation does not support another condition that adequately explains the individual's symptoms, including any of the following:
 - 1. Glenohumeral arthritis;
 - 2. Brachial plexus pathology;
 - 3. Fracture;
 - 4. Referred cervical pain; or
 - 5. Thoracic outlet syndrome;
- F. CT or MRI demonstrates an intra-articular loose body or foreign body;
- G. Documentation demonstrates both of the following:
 - 1. Shoulder pain or mechanical symptoms, including clicking, catching, or popping; and
 - 2. Functional limitation affecting ADLs;
- H. A minimum of 3 months of conservative management failed, or was not tolerated, or the loose or foreign body results in any of the following:
 - 1. Acute mechanical restriction of shoulder motion;
 - 2. Locking; or
 - 3. Other severe mechanical symptoms requiring surgical intervention.

Shoulder Lysis of Adhesions, Capsulotomy, and Capsular Release

- XIII. Shoulder lysis of adhesions, capsulotomy, or capsular release is medically necessary when ALL the following are met:
- A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
 - B. Imaging studies do not demonstrate fracture or other significant soft tissue injury as the primary cause of the individual's symptoms;
 - C. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;
 - D. Medical comorbidities are appropriately managed and there is no active infection;
 - E. For individuals with diabetes mellitus, HbA1c is 8% or less;
 - F. A minimum of 3 months of conservative management during the previous 6 months failed,

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 15 of 39

or was not tolerated, and includes the following:

1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT);
- G. Shoulder pain and loss of function interfere with ADLs;
- H. Physical examination demonstrates loss of shoulder motion of at least 50% in TWO (2) planes when compared with the contralateral shoulder.

Shoulder Manipulation Under Anesthesia (MUA)

Requests for manipulation under anesthesia of the shoulder will be reviewed on an individual case basis using the clinical information submitted for review.

Shoulder Osteotomy

XIV. Shoulder osteotomy is medically necessary when documentation supports ONE (1) of the following indications:

- A. Achondroplasia;
- B. Degenerative or inflammatory shoulder arthritis;
- C. Symptomatic osseous impingement or bone spur formation;
- D. Hill-Sachs deformity;
- E. Limb-length discrepancy resulting from trauma, infection, hypoplasia, or skeletal dysplasia;
- F. Malunited fracture resulting in functional impairment;
- G. Symptomatic shoulder instability; or
- H. Residual shoulder deformity or dysfunction associated with obstetric brachial plexus palsy.

Partial Claviculectomy, Acromioplasty, or Distal Clavicle Excision (DCE)

XV. Partial claviculectomy, acromioplasty, and/or distal clavicle excision is medically necessary when ALL the following are met:

- A. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT); and
 2. Pharmacological management with either:

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 16 of 39

- a. Intra-articular, subacromial or bicipital groove corticosteroid injection; or
- b. Oral analgesics;
- B. Localized acromioclavicular joint tenderness;
- C. Positive cross-body adduction testing;
- D. Shoulder pain and dysfunction have been present for at least 3 months;
- E. Symptoms interfere with ADLs;
- F. Radiographs or MRI demonstrate pathology involving the acromioclavicular joint, including ONE (1) or more of the following:
 - 1. Joint-space narrowing;
 - 2. Moderate-to-severe acromioclavicular degenerative disease;
 - 3. Distal clavicular edema; or
 - 4. Distal clavicular osteolysis.

Posterior Labral Repair

XVI. Posterior labral repair is medically necessary when ALL the following are met:

- A. Imaging does not demonstrate any of the following advanced degenerative diseases:
 - 1. Posterior glenoid cartilage loss;
 - 2. Subchondral cyst formation;
 - 3. Significant joint-space narrowing; or
 - 4. Posterior humeral head subluxation associated with arthropathy;
- B. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;
- C. Medical comorbidities are appropriately managed and there is no active infection;
- D. For individuals with diabetes mellitus, HbA1c is 8% or less;
- E. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - 1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT); and
 - 2. Pharmacological management with either:

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 17 of 39

- a. Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b. Oral analgesics;
- F. MRI confirms a posterior labral tear;
- G. Physical examination demonstrates any of the following findings:
 - a. Positive load-and-shift test;
 - b. Positive drawer test;
 - c. Positive jerk test; or
 - d. Positive Kim test;
- H. Documentation demonstrates ONE (1) or more of the following:
 - 1. Instability;
 - 2. Painful mechanical symptoms, including catching or popping; or
 - 3. Shoulder pain is attributable to the labral pathology.

Superior Labral Anterior-Posterior (SLAP) Repair

Debridement, biceps tenotomy, and biceps tenodesis are distinct procedures and are not considered SLAP repair.

- XVII. Superior labral anterior-posterior (SLAP) repair is medically necessary when ALL the following are met:
- A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
 - B. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;
 - C. Medical comorbidities are appropriately managed and there is no active infection;
 - D. For individuals with diabetes mellitus, HbA1c is 8% or less;
 - E. Documentation supports a shoulder injury associated with development of a SLAP tear, including:
 - 1. Overhead athletic activity;
 - 2. Fall;
 - 3. Traction injury;
 - 4. Lifting injury; or
 - 5. Motor vehicle accident;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 18 of 39

- F. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - 1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT); and
 - 2. Pharmacological management with either:
 - a. Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b. Oral analgesics;
- G. MRI confirms a superior labral tear;
- H. The lesion is classified as a Type II or Type IV SLAP tear;
- I. At least ONE (1) of the following provocative tests is positive:
 - 1. Anterior slide test;
 - 2. Biceps load test I or II;
 - 3. Forced shoulder abduction and elbow flexion test;
 - 4. Jobe relocation test;
 - 5. O'Brien (active compression) test;
 - 6. Pain provocation test; or
 - 7. Resisted supination external rotation test;
- J. Shoulder symptoms have persisted for at least three 3 months; and
- K. Pain and loss of function interfere with ADLs.

Shoulder Synovectomy

XVIII. Partial or complete shoulder synovectomy is medically necessary when ALL the following are met:

- A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
- B. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;
- C. Medical comorbidities are appropriately managed and there is no active infection;
- D. For individuals with diabetes mellitus, HbA1c is 8% or less;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 19 of 39

- E. No uncontrolled hypertension;
- F. Documentation demonstrates ONE (1) of the following:
 - 1. Hemochromatosis;
 - 2. Hemophilia;
 - 3. Inflammatory arthropathy, including rheumatoid arthritis, gout, pseudogout, or psoriatic arthritis;
 - 4. Lyme-related or nonspecific synovitis;
 - 5. Pigmented villonodular synovitis (PVNS);
 - 6. Recurrent hemarthrosis; or
 - 7. Synovial chondromatosis;
- G. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - 1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT); and
 - 2. Pharmacological management with either:
 - a. Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b. Oral analgesics;
- H. MRI or CT findings consistent with primary synovial disease or joint effusion, or prior arthroscopic findings demonstrating secondary hypertrophic synovitis;
- I. Shoulder symptoms result in impairment of ADLs.

Long Head of Biceps (LHB) Tenotomy or Tenodesis

Tenodesis may be more appropriate in highly active individuals with greater functional demands, while tenotomy may be preferred when tendon healing capacity is a concern.

XIX. Long head biceps tenotomy or tenodesis is medically necessary when ALL the following are met:

- A. No evidence of moderate-to-severe glenohumeral arthritis (Kellgren-Lawrence grade II or greater);
- B. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 20 of 39

- C. Medical comorbidities are appropriately managed and there is no active infection;
- D. For individuals with diabetes mellitus, HbA1c is 8% or less;
- E. No uncontrolled hypertension;
- F. Documentation demonstrates ONE (1) or more of the following:
 - 1. Long head biceps hypertrophy, subluxation, or tear confirmed by MRI or CT;
 - 2. Superior labral anterior-posterior (SLAP) tear demonstrated on MRI;
 - 3. Full-thickness rotator cuff tear that independently meets medical necessity criteria for repair;
 - 4. Failure of a prior SLAP repair; or
 - 5. Chronic biceps tenosynovitis associated with localized pain in the bicipital groove;
- G. A minimum of 6 weeks of conservative management (including tele-rehabilitation if appropriate) during the previous 6 months failed, or was not tolerated, and includes BOTH of the following:
 - 1. Non-pharmacologic management with either:
 - a. Chiropractic care; or
 - b. Supervised physical therapy (PT); and
 - 2. Pharmacological management with either:
 - a. Intra-articular, subacromial or bicipital groove corticosteroid injection; or
 - b. Oral analgesics;
- H. Physical examination demonstrates at least TWO (2) of the following:
 - 1. Anterior shoulder pain;
 - 2. Positive Yergason test;
 - 3. Positive Speed test;
 - 4. Bicipital groove tenderness; or
 - 5. Weakness attributable to long head biceps pathology;
- I. Shoulder pain and dysfunction have been present for at least 3 months; and
- J. Symptoms interfere with ADLs.

Subacromial Decompression (SAD)

XX. Subacromial decompression is medically necessary when ALL the following are met:

- A. Radiographs obtained within the previous 12 months do not demonstrate moderate-to-

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 21 of 39

severe glenohumeral degenerative joint disease, including advanced joint-space loss, large osteophyte formation, or bone-on-bone articulation;

- B. No nicotine or tobacco use, including cigar, cigarette, e-cigarette, nicotine patch, smokeless tobacco or vape pen use within 6 weeks of surgery;
- C. Medical comorbidities are appropriately managed and there is no active infection;
- D. For individuals with diabetes mellitus, HbA1c is 8% or less;
- E. No uncontrolled hypertension;
- F. Subacromial decompression is being performed in conjunction with at least ONE (1) of the following medically necessary procedures:
 - 1. Capsulorrhaphy;
 - 2. Debridement;
 - 3. Distal clavicle excision;
 - 4. Labral repair;
 - 5. Removal of an intra-articular loose body or foreign body;
 - 6. Lysis of adhesions or capsular release;
 - 7. Rotator cuff repair;
 - 8. Synovectomy; or
 - 9. Long head biceps tenotomy or tenodesis.

RELATED POLICIES

Not Applicable

POLICY GUIDELINE(S)

Not Applicable

DESCRIPTION

Total shoulder arthroplasty (replacement) is a surgical technique that involves replacing the humeral head and the glenoid. A total shoulder arthroplasty is typically the best option if the glenoid is damaged, but sufficient bone and rotator cuff remain to ensure that the glenoid component will last. The primary goal of shoulder replacement surgery is pain relief, with the secondary benefits of restoring motion, strength, and function, and helping individuals return to an activity level as near to normal as possible.

Partial shoulder replacement, also known as hemiarthroplasty, is a surgical technique that involves replacing the humeral head and not replacing the glenoid (socket), which is typically the best option

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 22 of 39

if the glenoid does not have any arthritis or if there is some concern that the glenoid component might fail if it is replaced. Hemiarthroplasty is a highly technical procedure. There are two types of hemiarthroplasties: stemmed hemiarthroplasty and resurfacing hemiarthroplasty. The surgeon determines the type of procedure to perform, based on the nature of the injury and the condition of the shoulder.

Reverse shoulder arthroplasty (replacement) involves replacing both the humeral head and the glenoid, but the ball and socket are reversed to improve muscle function. This allows the deltoid muscle, which has a longer movement arm, to generate greater force, allowing it to act in place of an inadequately functioning or torn rotator cuff.

Revision of shoulder arthroplasty (replacement) is a surgical technique that involves surgical reconstruction or replacement due to failure or complication of previous shoulder arthroplasty.

Shoulder pseudoparesis is a shoulder dysfunction, particularly in the setting of a massive unrepairable or irreparable rotator cuff tear, in which there is the presence of less than 90 degrees of active elevation.

Shoulder pseudoparalysis is a shoulder dysfunction, particularly in the setting of a massive unrepairable or irreparable rotator cuff tear, with all of the following: the presence of true anterosuperior escape; no true active shoulder elevation; and the individual is only able to demonstrate a shrug.

Shoulder resurfacing is a surgical technique that involves replacing the diseased part of the shoulder joint without replacing the humeral head. Resurfacing of the humeral head involves a prosthetic metal covering or cap to provide complete or partial coverage. It can be performed alone (hemi-resurfacing) or in combination with glenoid resurfacing (total or partial shoulder resurfacing).

The Walch classification of glenoid morphology is used to stratify the outcomes of shoulder arthroplasty for varying pathologic glenoid types. It also is used in preoperative planning to recognize morphologies that may pose intraoperative problems.

Type A: Centered humeral head, concentric wear, no subluxation of the humeral head

- A1: minor central erosion
- A2: major central erosion, humeral head protruding into the glenoid cavity

Type B: Humeral head subluxated posteriorly, biconcave glenoid with asymmetric wear

- B1: narrowing of the posterior joint space, subchondral sclerosis, osteophytes
- B2: biconcave aspect of the glenoid with posterior rim erosion and retroverted glenoid
- B3: monoconcave and posterior wear with $>15^\circ$ retroversion or $>70\%$ posterior humeral head subluxation, or both

Type C:

- C1: dysplastic glenoid with $>25^\circ$ retroversion regardless of the erosion

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 23 of 39

- C2: biconcave, posterior bone loss, posterior translation of the humeral head

Type D: Glenoid anteversion or anterior humeral head subluxation $<40^{\circ}$

SUPPORTIVE LITERATURE

In a systematic review and meta-analysis, Carter and colleagues (2012) characterized the change in generic and shoulder-specific health-related quality-of-life (QOL) measures resulting from TSA. These investigators identified published studies reporting pre-operative and post-operative health related QOL outcomes for patients receiving TSA. Health-related QOL measures were identified, and meta-analysis was used to calculate standardized mean differences (SMD)s¹ reflective of the effect size, and 95% confidence interval (CI) for each scale. A total of 20 studies (1,576 TSAs) met the inclusion criteria. Outcome measures were analyzed after an average post-operative follow-up duration of 3.7 +/- 2.2 years. The Short Form-36 demonstrated significant improvement in physical component summary scores (SMD = 0.7, $p < 0.001$), but not in mental component summary scores (SMD = 0.2, $p = 0.37$). Significant improvements were observed in the visual analog scale score for pain (SMD = -2.5, $p < 0.001$) and scores on three shoulder-specific measures: the Constant score (SMD = 2.7, $p < 0.001$), the American Shoulder and Elbow Surgeons score (SMD = 2.9, $p < 0.001$), and the Simple Shoulder Test (SMD = 2.3, $p < 0.001$). The authors concluded that TSA leads to significant improvement in scores for function and pain. Shoulder-specific measures of function consistently showed the greatest degree of improvement, with large effect sizes. They noted that TSA also leads to significant improvements in overall physical well-being, with a moderate-to-large effect size.

In a multi-centered retrospective study, Favard and colleagues (2012) evaluated the rate of complications and the functional improvement with different types of shoulder arthroplasties after a minimum follow-up of eight years. A total of 198 shoulders, including 85 with primary osteoarthritis (OA) of the shoulder, 76 with rotator cuff tears, 19 with avascular necrosis, and 18 with rheumatoid arthritis (RA), were included in this study. Arthroplasties included 104 anatomic TSAs, 77 reverse arthroplasties, and 17 hemiarthroplasties. Ten patients had their arthroplasty revised, and 134 patients with TSA were able to be present at the final follow-up or provide information on their case. Function was evaluated by the Constant-Murley score, and loosening was evaluated by standard radiographs. In the group with primary OA of the shoulder, there were eight complications (11 %), including six (8.3 %) requiring implant revision. In the group of rotator cuff arthropathies, there were nine (14.7 %) with complications, including four (6.5 %) requiring implant revision. In the group with RA, there was one complication, but no surgical revision was necessary. There were no complications in the group with avascular necrosis. Glenoid migration occurred in 28.5 % of anatomic TSAs, and 3.4 % of reverse arthroplasties. This difference was significant ($p < 0.001$). The Constant-Murley score was significantly improved in all etiologies. The authors concluded that glenohumeral arthropathies can be successfully treated by arthroplasty. Anatomic TSA was shown to be associated with a high risk of glenoid loosening at radiographic follow-up, which made them hesitate to use the cemented polyethylene implant, especially in young patients.

In a Cochrane review, Singh et al (2011) determined the benefits and potential harm associated with

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 24 of 39

surgery for shoulder OA. These investigators performed a systematic review of clinical trials of adults with shoulder OA, comparing surgical techniques (TSA, hemiarthroplasty, implant type and fixation) to placebo, sham surgery, non-surgical modalities, and no treatment. They also reviewed trials that compared various surgical techniques, identifying patient-reported outcomes (pain, function, quality of life, etc.) or revision rates. They calculated the risk ratio for categorical outcomes and mean differences for continuous outcomes with 95% CI. There were no controlled trials of surgery versus placebo or non-surgical interventions. A total of seven studies with 238 patients were included. Two studies compared TSA to hemiarthroplasty (n = 88). Researchers noted significantly worse scores on the 0 to 100 American Shoulder and Elbow Surgeons scale (mean difference, -10.05 at 24 to 34 months; 95 % CI: -18.97 to -1.13; p = 0.03) and a non-significant trend toward higher revision rate in hemiarthroplasty compared to TSA (relative risk 6.18; 95 % CI: 0.77 to 49.52; p = 0.09). With one study providing data (n = 41), no differences were noted between groups for pain scores (mean difference 7.8; 95 % CI: -5.33 to 20.93), quality of life on Medical Outcomes Study Short-Form 36 physical component summary (mean difference 0.80; 95 % CI: -6.63 to -8.23), or adverse events (relative risk 1.2; 95 % CI: 0.4 to 3.8). The authors concluded that TSA was associated with better shoulder function, with no other demonstrable clinical benefits compared to hemiarthroplasty. They stated that more studies are needed, to compare clinical outcomes between them and comparing shoulder surgery to sham, placebo, and other non-surgical treatment options.

Vancolen et al (2020) conducted a systematic review to evaluate the outcome of six studies totaling 245 participants aged less than 65 years who underwent reverse total shoulder arthroplasty (RTSA), with the most common indications being failed rotator cuff repair and rotator cuff tear arthropathy. The overall concern regarding RTSA is implant longevity and risk of failure necessitating need for revision surgery which may be a dissatisfier in younger individuals due to their higher postoperative expectations of function and pain relief. A significant level of postoperative functional improvement outcome was reported at a mean follow-up of 49 months (range, 19-140 months) (P < .05) as measured by the American Shoulder and Elbow Surgeons (ASES) and Subjective Shoulder Value (SSV), as well as pain scores as measured by Visual Analogue Scale (VAS) postoperatively. The pooled complication rate was considered high at 18% (n=44/245) with the most common complication reported as postoperative dislocation followed by glenoid loosening. The reoperation (revision) rate was 6% (n=15, range, 2-5) at a mean follow-up of 34 months (range, 19-140 months). The authors concluded that this small group study identified favorable short- to midterm functional outcomes of RTSA in the younger individual (<65 years) for indications including rotator cuff arthropathy and osteoarthritis. Due to the complication and revision rates identified in this systematic review, the authors stated that additional long-term studies are needed to report definitive clinical results regarding prosthesis longevity, complications, and need for revision surgery in this patient population.

Mowers and colleagues (2025) performed a systematic review and meta-analysis which included six (6) studies totaling 4525 individuals (males, n=2288 and females, n=2237) to compare patient-reported outcomes, range of motion, and rates of revision surgery between male and female individuals who had undergone a primary anatomic total shoulder arthroplasty (aTSA). The

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 25 of 39

systematic review identified that males experienced significantly greater improvement in postoperative ASES shoulder pain and functional scores (mean difference 2.18, $P < .001$) and VAS pain scores (mean difference 0.40, $P < .001$) compared to females. The study also found that female individuals compared to male individuals had a significantly higher risk of revision surgery (10.1% versus 7.3%, risk ratio 1.43, $P < .001$) and revision surgeries (6.2% versus 3.7%, risk ratio 1.87, $P = .03$). It has been well established that female individuals are associated with a higher risk of periprosthetic fracture due to a higher prevalence of osteoporosis in females. The authors concluded that there is a need for further investigation to determine the clinical significance of the identified aTSA comparative outcomes and to identify modifiable biological and social risk factors to improve results in female patients.

Bi and colleagues (2024) conducted a systematic review and meta-analysis which included 23 studies totaling 1178 individuals to analyze comparative studies of surgical treatment options for massive irreparable rotator cuff tears (MIRCTs) in individuals less than 70 years of age for several patient-reported outcomes, range of motion (ROM), and acromiohumeral distance (AHD). The mean age of study participants was 62.8 years of age, male ($n = 48.2\%$) to female ($n = 51.8\%$) participant numbers with a mean follow-up timeframe of 28.9 months. For the Constant-Murley score, debridement (MD, 21.03; 95% CI, 8.98 to 33.08; $P < .001$) and arthroscopic bridging graft (aBG) (mean difference [MD], 6.97; 95% CI, 1.88 to 12.05; $P = .007$) resulted in the highest P-scores. For the ASES score, InSpace balloon arthroplasty (MD, 12.34; 95% CI, 2.18 to 22.50; $P = .017$), aBG (MD, 7.07; 95% CI, 0.28 to 13.85; $P = .041$), and long head of biceps augmented superior capsular reconstruction (BSCR) (MD, 5.16; 95% CI, 1.10 to 9.22; $P = .013$) resulted in the highest P-scores. For AHD, BSCR resulted in the highest P-score (MD, 1.46; 95% CI, 0.45 to 2.48; $P = .005$). For forward flexion range of motion (ROM), debridement (MD, 45.77; 95% CI, 25.41 to 66.13; $P < .001$) resulted in the highest P-score, while reverse shoulder arthroplasty (RSA) resulted in the lowest P-score (MD, -16.70; 95% CI, -31.20 to -2.20; $P = .024$). The authors concluded that graft interposition repair techniques, superior capsular reconstruction using the long head of the bicep tendon, arthroscopic debridement, and balloon arthroplasty provided superiority in various study outcomes for individuals less than 70 years of age with MIRCTs without significant arthritis or pseudoparalysis and RSA provides the least benefit in forward flexion.

There is a lack of long-term, randomized controlled studies for shoulder resurfacing using metal, polyethylene and biological materials for the treatment of glenohumeral arthritis, humeral head fractures, and osteochondral lesions. Biological glenoid resurfacing with or without prosthetic humeral head replacement has been suggested as a means to avoid the potential complications of polyethylene use in younger patients with glenohumeral arthritis. A variety of biologic surfaces, including anterior capsule, autogenous fascia lata, and Achilles tendon allograft have been used; however, there is minimal evidence in the peer-reviewed literature that these biological grafts can provide a durable bearing surface over time and there is documentation of post-operative infections. Further studies to assess the long-term outcomes and to evaluate alternative surface bearing materials (especially on the glenoid side) are required.

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 26 of 39

PROFESSIONAL GUIDELINE(S)

According to the 2020 Management of Glenohumeral Joint Osteoarthritis Evidence-based Clinical Practice Guidelines of the American Academy of Orthopaedic Surgeons (AAOS), there is strong evidence that anatomic TSA produces more favorable function and pain relief in the short-to mid-term follow-up, when compared to hemiarthroplasty, for the treatment of glenohumeral osteoarthritis. These guidelines also recommend, in the absence of reliable evidence, that clinicians use either anatomic TSA or reverse TSA for the treatment of glenohumeral joint osteoarthritis in selected patients with excessive glenoid bone loss and/or rotator cuff dysfunction.

Within the 2020 guidelines, AAOS also advised of limited evidence to support that clinicians may utilize stemmed, stemless or resurfacing prosthesis for patients with glenohumeral joint osteoarthritis undergoing total or hemi-arthroplasty. However, the low-quality studies provided early information that any of these implants are reasonable and safe options but should be used with caution as there are no long-term outcome studies.

According to the 2010 Management of Rotator Cuff Injuries of the AAOS which were updated in 2019, there is strong evidence supporting both physical therapy and surgical management resulted in a notable improvement in PROs for patients with symptomatic small to medium full-thickness rotator cuff tears. AAOS also recommended that there is also strong evidence that supports that PROs improve with physical therapy in symptomatic patients with full-thickness rotator cuff tears. However, the rotator cuff tear size, muscle atrophy, and fatty infiltration may progress over five (5) to 10 years with nonsurgical management.

REGULATORY STATUS

The U.S. Food and Drug Administration (FDA) regulates a variety of shoulder arthroplasty systems, including reverse total shoulder arthroplasty (rTSA) and stemless implants as medical devices. All shoulder implants including related components require FDA approval before marketing and use in the United States to ensure they are safe and effective for human use. Refer to the FDA Medical Device website. Available from: <https://www.fda.gov/medical-devices> [accessed 2026 Sept 09]

The FDA lists the most serious type of medical device recalls as well as early alert communications about corrective actions being taken by companies that the FDA believes are likely to be the most serious type of recalls. Available from: [Medical Device Recalls and Early Alerts | FDA](#) [accessed 2026 Sept 09]

CODE(S)

- Codes may not be covered under all circumstances.
- Code list may not be all inclusive (AMA and CMS code updates may occur more frequently than policy updates).
- (E/I)=Experimental/Investigational
- (NMN)=Not medically necessary/appropriate

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 27 of 39

CPT Codes

Code	Description
23334	Removal of prosthesis, includes debridement and synovectomy when performed; humeral or glenoid component
23335	Removal of prosthesis, includes debridement and synovectomy when performed; humeral and glenoid components (e.g., total shoulder)
23470	Arthroplasty, glenohumeral joint; hemiarthroplasty
23472	Arthroplasty, glenohumeral joint; total shoulder (glenoid and proximal humeral replacement (e.g., total shoulder).
23473	Revision of total shoulder arthroplasty, including allograft when performed; humeral or glenoid component
23474	Revision of total shoulder arthroplasty, including allograft when performed; humeral and glenoid component
29805	Arthroscopy, shoulder, diagnostic, with or without synovial biopsy (separate procedure)
29806	Arthroscopy, shoulder, surgical; capsulorrhaphy
29807	Arthroscopy, shoulder, surgical; repair of SLAP lesion
29819	Arthroscopy, shoulder, surgical; with removal of loose body or foreign body
29820	Arthroscopy, shoulder, surgical; synovectomy, partial
29821	Arthroscopy, shoulder, surgical; synovectomy, complete
29822	Arthroscopy, shoulder, surgical; debridement, limited, 1 or 2 discrete structures (e.g., 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]
29823	Arthroscopy, shoulder, surgical; debridement, extensive, 3 or more discrete structures (e.g., 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]
29824	Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure)

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 28 of 39

Code	Description
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
23031	Incision and drainage, shoulder area; infected bursa
23035	Incision, bone cortex (eg, osteomyelitis or bone abscess), shoulder area
23040	Arthrotomy, glenohumeral joint, including exploration, drainage, or removal of foreign body
23044	Arthrotomy, acromioclavicular, sternoclavicular joint, including exploration, drainage, or removal of foreign body
23100	Arthrotomy, glenohumeral joint, including biopsy
23101	Arthrotomy, acromioclavicular joint or sternoclavicular joint, including biopsy and/or excision of torn cartilage
23107	Arthrotomy, glenohumeral joint, with joint exploration, with or without removal of loose or foreign body
23170	Sequestrectomy (e.g., for osteomyelitis or bone abscess), clavicle
23172	Sequestrectomy (e.g., for osteomyelitis or bone abscess), scapula
23174	Sequestrectomy (e.g., for osteomyelitis or bone abscess), humeral head to surgical neck
23180	Partial excision (craterization, saucerization, or diaphysectomy) bone (e.g., osteomyelitis), clavicle
23182	Partial excision (craterization, saucerization, or diaphysectomy) bone (e.g., osteomyelitis), scapula
23184	Partial excision (craterization, saucerization, or diaphysectomy) bone (e.g., osteomyelitis), proximal humerus
23190	Ostectomy of scapula, partial (e.g., superior medial angle)
23195	Resection, humeral head

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 29 of 39

Code	Description
23400	Scapulopexy (e.g., Sprengels deformity or for paralysis)
23480	Osteotomy, clavicle, with or without internal fixation;
23485	Osteotomy, clavicle, with or without internal fixation; with bone graft for nonunion or malunion (includes obtaining graft and/or necessary fixation)
23490	Prophylactic treatment (nailing, pinning, plating or wiring) with or without methylmethacrylate; clavicle
23491	Prophylactic treatment (nailing, pinning, plating or wiring) with or without methylmethacrylate; proximal humerus
23800	Arthrodesis, glenohumeral joint;
23802	Arthrodesis, glenohumeral joint; with autogenous graft (includes obtaining graft)

Copyright © 2026 American Medical Association, Chicago, IL

HCPCS Codes

Code	Description
Not Applicable	

ICD10 Codes

Code	Description
M05.00 - M05.9	Rheumatoid arthritis (code range Felty's syndrome)
M12.511 - M12.519	Traumatic arthropathy, shoulder (code range)
M19.011 - M19.019	Osteoarthritis, localized, primary, shoulder region (code range)
M19.111 - M19.119	Post-traumatic osteoarthritis, shoulder (code range)
M19.211 - M19.219	Osteoarthritis, localized, secondary, shoulder region (code range)
M24.811 - M24.819	Other specific joint derangement of shoulder, not elsewhere classified [crepitus] (code range)

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 30 of 39

Code	Description
M87.021 - M87.029	Idiopathic aseptic necrosis of humerus [head] (code range)
S42.001K - S42.199P	Malunion or nonunion of fracture of shoulder (code range)
S42.201A - S42.496S	Fracture of humerus (code range)
T84.018A - T84.019A	Broken internal joint prosthesis [shoulder] (code range)
T84.028A- T84.029A	Dislocation of other and unspecified internal joint prosthesis (code range)
T84.038A - T84.039A	Mechanical loosening of other or unspecified prosthetic joint [shoulder] (code range)
T84.59XA	Infection and inflammatory reaction due to other internal joint prosthesis [shoulder]

REFERENCES

(2020). Webpage title. AAOS Orthoguidelines. Retrieved: February 2026.<https://www.aaos.org/gjocpg>

Althoff, A. D., Brunette, C., . . . Brockmeier, S. (2023). Postoperative Rehabilitation After Superior Labrum Anterior Posterior Repair. Physical Medicine and rehabilitation Clinics of North America, Volume 34(2), 377-392.

Adeyemo, A., Bertha, N., . . . Updegrove, G. (2021) Implant Selection for Proximal Humerus Fractures The Orthopedic Clinics of North America, 52(2), 167-175.

(2022). Adhesive Capsulitis (Frozen Shoulder). Clinical Keys. Retrieved: September 2025. https://www.clinicalkey.com/#!/content/clinical_overview/67-s2.0-107b6bbf-8ff5-4a03-bd9d-4c8c3c22b127#clinical-presentation-heading-8

(2024). American Academy of Orthopedic Surgeons: Preoperative Risk Factors. American Academy of Orthopedic Surgeons. Retrieved: September 2025. <https://www.aaos.org/quality/quality-programs/quality-toolkits/smoking/>

(2025). American Academy of Orthopedic Surgeons: Management of Rotator Cuff Injuries. American Academy of Orthopedic Surgeons. Retrieved: January 2026. <https://www.aaos.org/quality/quality-programs/rotator-cuff/>

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 31 of 39

American Academy of Orthopaedic Surgeons. (2022). Achondroplasia. OrthoInfo. Retrieved: September 2025. <https://orthoinfo.aaos.org/en/diseases--conditions/achondroplasia/>

American Academy of Orthopaedic Surgeons. (2017). Infections. OrthoInfo. Retrieved: September 2025. <https://orthoinfo.aaos.org/en/diseases--conditions/infections/>

Amini, B., Beckmann, N. M., . . . Kransdorf, M. J. (2018). ACR Appropriateness Criteria Shoulder Pain-Atraumatic. Journal of the American College of Radiology, 15(5), S171-S188. Retrieved: September 2025. <https://www.clinicalkey.com/#!/content/journal/1-s2.0-S1546144018303387>

Arciero, R. A. & Levy, B. J. (2022). Anterior instability—open surgery: Primary and revision with outcomes. F. A. Matsen. & F. A. Cordasco (Eds.). Rockwood and Matsen's The Shoulder (6), (pp. 537-545. e2). Philadelphia: Elsevier, Inc.

Arner, J.W., Ruzbarsky, J.J., . . . Millett, P.J. (2022). Comprehensive Arthroscopic Management of Shoulder Arthritis. Arthroscopy: The Journal of Arthroscopic and Related Surgery, 38(4), 1035-1036.

Bartolotta, R. J., Ha, A. S. (2022). Current Imaging Concepts in Shoulder and Hip Arthroplasty. Radiologic Clinics of North America, 60(4), 669-678.

Bellomo, T. R., Robinson, S. T., . . . Corriere, M. A. (2021). Claviculectomy for exposure and redo repair of expanding, recurrent right subclavian aneurysm. Journal of Vascular Surgery Cases, Innovations and Techniques, 7(4), 694-697.

Bernstein, M. (2020). Malunion in the Lower Limb. OrthoInfo. Retrieved: September 2025. <https://orthoinfo.aaos.org/en/diseases--conditions/malunion-in-the-lower-limb/>

Blessing, W. A., Williamson, A. K., . . . Grinstaff, M. W. (2021). The Prognosis of Arthrofibroses: Prevalence, Clinical Shortcomings, and Future Prospects. Trends in Pharmacological Sciences, 42(5), 398-415.

Bokshan, S. L., Marcaccio, S. E., . . . Owens, B. D. (2020). Open Bankart Repair for Anterior Shoulder Instability. Operative Techniques in Orthopaedics, 30(3), 1-11.

Brochin, B. L. , Zastrow, R., Cagle, P. (2021). Arthroscopic glenoid removal for aseptic loosening in total shoulder arthroplasty. JSES International, 31(2), 197-201.

Brunelli, J., Bravman, J. T., . . . McCarty, E. C. (2020). Glenohumeral Arthritis in the Athlete.

M. D. Miller & S. R. Thompson (Eds.). DeLee, Drez, & Miller's Orthopaedic Sports Medicine (5), (pp. 592-608). Philadelphia: Elsevier, Inc.

Burns, J.P.(2022).Arthroscopic repair of superior labral anterior-posterior lesions . B.J. Cole. Surgical Techniques of the Shoulder, Elbow, and Knee in Sports Medicine (30), (pp.267-275). Philadelphia, PA.: Elsevier, Inc.

Calonje, E., Damaskou, V. & Lazar, A. J. (2020). Connective tissue tumors. E. Calonje (Ed.). McKee's Pathology of the Skin (5), (pp. 1698-1894.e88). Philadelphia: Elsevier Limited.

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 32 of 39

Chalmers, P. N., Cvetanovich, G. L. & Romeo, A. A. (2020). Long Head of the Biceps Tendon Tenodesis: Subpectoral (Distal) Technique. M. T. Provencher. & B. J. Cole (Eds.). Disorders of the Rotator Cuff and Biceps Tendon, (pp. 538-546). Philadelphia: Elsevier, Inc.

Chan, W.W., Namdan, S., . . . Williams, G.R. (2021). Surgical and Postoperative Management of Shoulder Arthritis. T.M. Skirven (Ed.) Rehabilitation of the Hand and Upper Extremity, Seventh Edition (7), (pp. 1278-1290). Philadelphia: Elsevier, Inc.

Churchill, J.L., Paez, C. J., . . . Ho, . JC. (2023). Understanding Medical Optimization for Patients Undergoing Shoulder Arthroplasty Orthopedic Clinics of North America, 54(3), 309-318.

Chuang, D. C., Lu, J. C. & Chang, T. N. (2022). Thoracic outlet compression neuropathy and decompression surgery at Chang Gung Memorial Hospital. Orthoplastic Surgery, 8, 7-16.

Cooper. J. D., Essilfie, A. & Gamradt, S. C. (2020). Revision Rotator Cuff Repair. M. D. Miller & S. R. Thompson (Eds.). DeLee, Drez, & Miller's Orthopaedic Sports Medicine (5), (pp. 567-573). Philadelphia: Elsevier, Inc.

Crenshaw, A. H. (2021). Old Unreduced Dislocation. F. M. Azar & J. H. Beaty (Eds.). Campbell's Operative Orthopaedics (14), (pp. 3246-3270). Philadelphia: Elsevier, Inc.

Dawes, A.M., Farley, K.X., . . . Wagner, E.R. (2022). Operative and nonoperative treatment of periprosthetic humerus fractures after shoulder arthroplasty: a systematic review and meta-analysis. Journal of Shoulder and Elbow Surgery, 33(11), 1-19.

DeBerardino, T. M. & Scordino, L. W. (2020). Shoulder Arthroscopy. M. D. Miller & S. R. Thompson (Eds.). DeLee, Drez, & Miller's Orthopaedic Sports Medicine (5), (pp. 433-439). Philadelphia: Elsevier, Inc.

DeMeireles, A. J., Czerwonka, N., . . . Levine, W. N. (2023). Clavicle Nonunion and Malunion. Clinics in Sports Medicine, 42(4), 663-675.

Dorsi, M. J., Puffer, R. C., . . . Belzberg, A. J. (2022). Peripheral Nerve Tumors of the Extremities. A. Quiñones-Hinojosa (Ed.). Schmidek and Sweet: Operative Neurosurgical Techniques (7), (pp. 2205-2214.e2). Philadelphia: Elsevier, Inc.

Dreese, J. C. & Casagrande, D. (2020). Arthroscopic Superior Labrum Anterior-to-Posterior Repair. Musculoskeletal. Retrieved: September 2025. <https://musculoskeletalkey.com/arthroscopic-superior-labrum-anterior-to-posterior-repair/>

Feger, J. 2025. Osteoarthritis of the Shoulder. Radiopaedia. Retrieved: February 2026. <https://radiopaedia.org/articles/osteoarthritis-of-the-shoulder?lang=gb>

Flurin, P., Abadie, P., . . . Throckmorton, T.W. (2024). Outpatient vs. inpatient total shoulder arthroplasty: complication rates, clinical outcomes, and eligibility parameters. Journal of Shoulder and Elbow Surgery, 8(1), 483-490.

Frank, T. & Athwal, G. (2020). Hemiarthroplasty for Proximal Humerus Fractures. E.H. Schemitsch &

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 33 of 39

M.D., McKee. *Operative Techniques: Orthopaedic Trauma Surgery* (2), (pp. 95-111). Philadelphia: Elsevier, Inc.

Gao, M. A., Sullivan, S. W., . . . Colucci, P. G. (2026). Shoulder Impingement Syndromes: State of the Art Imaging. *Radiologic Clinics of North America*, 64(2), 315-327.

Guaci, M., Cavalier, M., . . . Boileau, P. (2020). 2020 Revision of failed shoulder arthroplasty: epidemiology, etiology, and surgical options. *Journal of Shoulder and Elbow Surgery*, 3(29), 541-549.

Guo, B., Yang, Y., . . . Tang, X. (2025). Clinical outcomes of arthroscopic treatment for shoulder synovial chondromatosis: a case series. *Journal of Shoulder and Elbow Surgery*, 34(1), e1215-e1223.

Hachadorian, M., Chang, R.N., . . . Singh, A. (2023). Association between same-day discharge shoulder arthroplasty and risk of adverse events in patients with American Society of Anesthesiologists classification >3: a cohort study. *The Journal of Arthroplasty*, 32, e556-e564.

Hadi, M., Maher, L. (2025). Bursitis F.F. Ferri (Eds.). *Ferri's Clinical Advisor 2025*, (pp. 217 .e17-217 .e18). Philadelphia: Elsevier, Inc.

Haratian, A., Yensen, K., . . . Petrigliano, F. A. (2021). Open Stabilization Procedures of the Shoulder in the Athlete: Indications, Techniques, and Outcomes. *Open Access Journal of Sports Medicine*, 12, 159-169. Retrieved: September 2025. doi: 10.2147/OAJSM.S321883

Hart, J. A. (2022). *Shoulder and Humerus*. S. D. Rynders & J. A. Hart (Eds.). *Orthopaedics for Physician Assistants* (2), (pp. 39-70). Philadelphia: Elsevier, Inc.

Heck, R. K. & Toy P. C. (2021). General Principles of Tumors. F. M. Azar & J. H. Beaty (Eds.). *Campbell's Operative Orthopaedics* (14), (pp. 890-956). Philadelphia: Elsevier, Inc.

Himer, N., Clavert, P., . . . Antoni, M. (2025). Factors associated with humeral stem extraction difficulty in revision shoulder arthroplasty. *Journal of Shoulder and Elbow Surgery*, 9(1), 1705-1712.

Hoellwarth, J. S., Weiss, K., . . . McGough, R. (2020). Evaluating the reoperation rate and hardware durability of three stabilizing implants for 105 malignant pathologic humerus fractures. *Injury*, 51(4), 947-954.

Hurley, E. T., Matache, B. A., . . . Jazrawi, L. M. (2021). Anterior Shoulder Instability Part I—Diagnosis, Nonoperative Management, and Bankart Repair—An International

Consensus Statement. *Arthroscopy: The Journal of Arthroscopic and Related Surgery*, 38(2), 214-223.e7.

Izquierdo, R., Rivers, M., . . . Van Thiel, G. S. (2020). The Failed Rotator Cuff Repair: Evaluation and Surgical Management. M. T. Provencher. & B. J. Cole (Eds.). *Disorders of the Rotator Cuff and Biceps Tendon*, (pp. 382-397). Philadelphia: Elsevier, Inc.

Jennewine, B.R., Throckmorton, T.W., . . . Brolin, T.J. (2024). Patient-selection algorithm for outpatient shoulder arthroplasty in ambulatory surgery center: a retrospective update. *Journal of Shoulder and Elbow Surgery*, 33(1), 900-907.

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 34 of 39

Joyce, C. D. & Abboud, J. A. (2020). Glenoid fractures: which ones can be fixed through the scope? *Annals of Joint*, 5, 1-9. Retrieved: September 2025 https://m.iliveok.com/health/arthrotomy_132036i88956.htm. <https://aoj.amegroups.com/article/view/5819>

Kobayashi, E. F., Oak, S. R., . . . Bedi, A. (2023) Treatment of Massive Rotator Cuff Tears with Reverse Shoulder Arthroplasty. *Clinics in Sports Medicine* 42(1), 157-173.

Kolander, Y. (2021). Arthrotomy. *iliveok*. Retrieved: September 2025. https://m.iliveok.com/health/arthrotomy_132036i88956.html

Lavoie, O.L., Farah, G., . . . Forsythe, B. (2022). Physical Therapy Combined With Subacromial Cortisone Injection Is a First-Line Treatment Whereas Acromioplasty With Physical Therapy Is Best if Nonoperative Interventions Fail for the Management of Subacromial Impingement: A Systematic Review and Network Meta-Analysis. *Arthroscopy: The Journal of Arthroscopic and Related Surgery*, 38(8), 2511-2544.

Lalehzarian, S.P., Agarwalla, A., . . . Liu, J.N. (2022). Management of proximal biceps tendon pathology. *World Journal of Orthopedics*, 13(1), 36-57.

Leafblad, N., Mizels, J., . . . Tashjian, R . (2023). Adhesive Capsulitis. *Physical Medicine and rehabilitation Clinics of North America* , 34(2), 453-468.

Leon, J.V., Hermans, D., . . . Duckworth, D.G. (2023). Patient outcomes following arthroscopic distal clavicle excision: a prospective case series. *JSES International*, 6(7), 2400-2405.

Li, C., Qianghua Wu, C. L., Chang, D., . . . Huang, Z. (2022). State-of-the-art of minimally invasive treatments of bone metastases. *Journal of Bone Oncology*, 34, 100425. Retrieved: September 2025. <https://doi.org/10.1016/j.jbo.2022.100425>

Lian, J., Chan, F. L., . . . Levy, B. J. (2023). Classification of Distal Clavicle Fractures and Indications for Conservative Treatment. *Clinics in Sports Medicine* , 42(4), 685-693.

Lowell, B., deWeber, K (2020) . Superior Labral Injuries. *Clinical Keys* Retrieved: April 2025. https://www.clinicalkey.com/#!/content/derived_clinical_overview/76-s2.0-B9780323567053000307

Ma, C. B. (2021). Shoulder arthroscopy. *Medline Plus*. Retrieved: September 2025. <https://medlineplus.gov/ency/article/007206.htm>

Mancini, M. R., Horinek, J. L., . . . Denard, P. J. (2023). Arthroscopic Rotator Cuff Repair. *Clinics in Sports Medicine*, 42(1), 81-94.

Mandaleson, A. (2021). Re-tears after rotator cuff repair: Current concepts review. *Journal of Clinical Orthopaedics and Trauma*, 19, 168-174.

Mascioli, A. & Park, A. L. (2021). Infectious Arthritis. F. M. Azar & J. H. Beaty (Eds.). *Campbell's Operative Orthopaedics* (14), (pp. 842-867.e2). Philadelphia: Elsevier, Inc.

Mazzocca, A. D., Berthold, D. P., . . . Ross, J. P. (2019). Open management of atraumatic and traumatic disorders of the acromioclavicular joint: Indications, techniques, and outcomes. F. A.

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 35 of 39

Matsen & F. A. Cordasco (Eds.). Rockwood and Matsen's The Shoulder (6), (pp. 406-421. e11). Philadelphia: Elsevier, Inc.

McKean, J. (2024). Avascular Necrosis of the Shoulder. Orthobullets. Retrieved: February, 2026. <https://www.orthobullets.com/shoulder-and-elbow/3060/avascular-necrosis-of-the-shoulder>

Mesregah, M. K. & Hasan, B. Z. (2021). A four-year-old neglected traumatic bipolar clavicular dislocation: a case report. JSES Reviews, Reports, and Techniques, 1(3), 278-281.

Metz, R. M. & Kaar, S. G. (2020). Arthroscopic Bankart Repair With Remplissage: Indications and Techniques. Operative Techniques in Orthopaedics, 30(3), 1-5.

Michener, L. A., Heitzman, J., Seitz, A. L. (2023). Physical Therapist Management of Glenohumeral Joint Osteoarthritis: A Clinical Practice Guideline from the American Physical Therapy Association. Physical Therapy & Rehabilitative Journal, 6(103), 1-18.

Miller, N.L., Murrell, G.C. (2025). Shoulder Pain. G.S. Firestein & R.C. Budd (Eds.). Firestein & Kelley's Textbook of Rheumatology (12), (pp. 714-739.e4). Philadelphia: Elsevier, Inc.

Miller, R. H., Azar, F. M. & Throckmorton, T. W. (2021). Shoulder and Elbow Injuries. F. M. Azar & J. H. Beaty (Eds.). Campbell's Operative Orthopaedics (14), (pp. 2374-2425.e8). Philadelphia: Elsevier, Inc.

Montgomery, C., Couch, C. & Nicholas, R. (2021). Metastatic Disease Upper Extremity. Operative Techniques in Orthopaedics, 31(3), 100895. Retrieved: September 2025. <https://doi.org/10.1016/j.oto.2021.100895>

Murray, R. & Lesniak, B. P. (2020). Arthroscopic Bankart Repair. Operative Techniques in Orthopaedics, 30(3), 1-11.

Nacey, N., Fox, M.G., . . . Chang, E.Y. (2023). ACR Appropriateness Criteria Chronic Shoulder Pain: 2022 Update . Journal of the American College of Radiology, 20(5), S49-S69.

National Institute for Health and Care Excellence (2022). Intramedullary distraction for upper limb lengthening (IPG722). ClinicalKey. Retrieved: September 2025. https://www.clinicalkey.com/#!/content/nice_guidelines/65-s2.0-IPG722

(2022). Osteoarthritis in over 16s: diagnosis and management. National Institute for Health and Care Excellence (NICE). Retrieved: September 2025. <https://www.nice.org.uk/guidance/ng226>

Olson, J. J., Granger, C. J, . . . Zmistowski, B. M (2023). Revision of failed reverse total shoulder arthroplasty with reverse: short-term clinical outcomes. Journal of Shoulder and Elbow Surgery, 33(4), 908-915.

Ott, N., Harland, H., . . . Wegmann, K. (2021). Primary stability of fixation methods for periprosthetic fractures of the humerus A biomechanical investigation. Journal of Shoulder and Elbow Surgery, 30(9), 2184-2190.

Parvaresh, K.C., Maheshwer, B. & Verma, N.H.(2022). Arthroscopic management of glenohumeral

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 36 of 39

osteoarthritis. B.J. Cole, J. Chahla & R. Gilat. Surgical Techniques of the Shoulder, Elbow, and Knee in Sports Medicine (3), (pp. 282-287). Philadelphia, PA.: Elsevier, Inc.

Pastorino, A. & Tavarez, M. M.(2021). Incision and Drainage. National Library of Medicine. Retrieved: September 2025. <https://www.ncbi.nlm.nih.gov/books/NBK556072/>

Phillips, B. B. (2021). Arthroscopy of the Lower Extremity. F. M. Azar & T. Canale (Eds.). Campbell's Operative Orthopaedics (14), (pp. 2426-2478.e8). Philadelphia: Elsevier, Inc.

Phillips, B. B. & Brolin, T. J. (2021). Arthroscopy of the Upper Extremity. F. M. Azar & J.H. Beaty (Eds.). Campbell's Operative Orthopaedics (14), (pp. 2663-2755). Philadelphia: Elsevier, Inc.

Pierce, J. L., Perry, M. T., . . . Beaman, F. D. (2017). ACR Appropriateness Criteria Suspected Osteomyelitis, Septic Arthritis, or Soft Tissue Infection (Excluding Spine and Diabetic Foot). Journal of the American College of Radiology, 19(11), S473-S487.

Piercey, M., Kelley, M. J. & Kuntz, A. F. (2021). Frozen Shoulder: Surgery and Therapy. T. M. Skirven (Ed.). Rehabilitation of the Hand and Upper Extremity (7), (pp. 977-990). Philadelphia: Elsevier, Inc.

Prabowo, Y. & Saleh, R. F. (2021). Pedicle screw system reconstruction in shoulder resection type IV-total scapulectomy: A case report and short term follow up. International Journal of Surgery Case Reports, 82, 105899. Retrieved: September 2025: <https://doi.org/10.1016/j.ijscr.2021.105899>

Prazad, P. A., Rajpal, M. N., Mangurten, H. H. (2025). Birth Injuries. R.J. Martin & A.A. Fanaroff (Eds.). Fanaroff and Martin's Neonatal-Perinatal Medicine (12), (pp. 475-503). Philadelphia: Elsevier.

Provencher, M. T., Cole, B. J., . . . Verma, N. N. (2020). Calcific Tendinopathy. M. T. Provencher & B. J. Cole (Eds.). Disorders of the Rotator Cuff and Biceps Tendon (1), (pp. 192-206). Philadelphia: Elsevier, Inc.

Rajani, R. & Quinn, R. H. (2020). Bone Tumor. Orthoinfo. Retrieved: September 2025. <https://orthoinfo.aaos.org/en/diseases--conditions/bone-tumor/>

Raphael, B. S. (2020). Multidirectional Glenohumeral Instability Treatment & Management. Medscape. Retrieved: September 2025. <https://emedicine.medscape.com/article/1262368-treatment>

Rogers, M., Wong, C. M. (2020) . Shoulder Impingement. Clinical Keys Retrieved: March 2026. https://www.clinicalkey.com/#!/content/derived_clinical_overview/76-s2.0-B9780323567053000332

Root, K.T., Hones, K. M., . . . Schoch, B.S. (2024). A Systematic Review of Patient Selection Criteria for Outpatient Total Shoulder Arthroplasty Orthopedic Clinics of North America, 55(3), 363-381.

Rosenthal, Y., Kwon, Y.W (2020). Total Shoulder Arthroplasty Utilizing the Subscapularis-Sparing Approach. The Orthopedic Clinics of North America, 51(3), 383-389.

Rudy, C.C., Daya, M.R .(2023). Shoulder Injuries. R.M. Walls (Ed.). Rosen's Emergency Medicine: Concepts and Clinical Practice (45). (pp. 542-561.e2). Philadelphia: Elsevier, Inc.

Saito, T., Matsumura, T., . . . Takeshita, K. (2020). PHILOS plating of periprosthetic humeral shaft fracture after onlay-type reverse total shoulder arthroplasty A case report. JSES Reviews, Reports,

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 37 of 39

and Techniques, 1(1), 65-68.

Samin, M., Beltran, L. (2020). The Postoperative Rotator Cuff. *Magnetic Resonance Imaging Clinics of North America*, 28(2), 181-194.

Salvo, J. P. (2020). Posterior Glenohumeral Instability Treatment & Management. *Medscape*. Retrieved: September 2025. <https://emedicine.medscape.com/article/1262625-treatment#d17>

Schoch, B. S., Wright, T. W. & Wilke, B. K. (2022). Tumors and related conditions. F. A. Masten & F. A. Cordasco (Eds.). *Rockwood and Matsen's The Shoulder* (6), (pp. 159-194.e8). Philadelphia: Elsevier, Inc.

Shaffer, M. A., Gaunt, B. W., . . . Wolf, B. R. (2021). Rehabilitation of Shoulder Instability. T. M. Skirven (Ed.). *Rehabilitation of the Hand and Upper Extremity* (7), (pp. 991-1008.e3). Philadelphia: Elsevier, Inc.

Shane, A. M., Reeves, C. L., . . . Calaj, P. M. (2023). Soft Tissue Pathology. *Clinics in Podiatric Medicine and Surgery*, 40(3), 381-395.

Sheth, N. P. (2022). Osteoarthritis. *Orthoinfo*. Retrieved: September 2025. <https://orthoinfo.aaos.org/en/diseases--conditions/osteoarthritis/>

Small, K. M., Adler, R. S., . . . Kransdorf, M. J. (2018). ACR Appropriateness Criteria Shoulder Pain-Atraumatic. *Journal of the American College of Radiology*, 15(11), S388-S402. Retrieved: September 2025. <https://www.clinicalkey.com/#!/content/journal/1-s2.0-S1546144018311748>

Stauffer, T.P., Goltz, D.E., . . . Anakwenze, O.A. (2023). Two-stage revision for periprosthetic infection in shoulder arthroplasty: an institutional experience. *Seminars in Arthroplasty: JSES*, 33(1),

Stevanovic, M. V. & Sharpe, F. (2022). Acute Infections of the Hand. S. W. Wolfe & W. C. Pederson (Eds.). *Green's Operative Hand Surgery* (8), (pp. 17-62). Philadelphia: Elsevier, Inc.

Stokes, D. J., McCarthy, T. P., . . . Frank, R. M. (2023). Physical Therapy for the Treatment of Shoulder Instability . *Physical Medicine & Rehabilitation Clinics of North America*, 34(2), 393-408.

Thompson, S. R., Menzer, H. & Brockmeier, S. F. (2020). Anterior Shoulder Instability. M.D. Miller & S. R. Thompson (Eds.). *DeLee, Drez, & Miller's Orthopaedic Sports Medicine* (5), (pp. 440-462). Philadelphia: Elsevier, Inc.

Throckmorton, T.W. (2021). Shoulder and Elbow Arthroplasty. F.M. Azar & J.H. Beaty (Eds.). *Campbell's Operative Orthopaedics* (14), (pp. 600-655). Philadelphia, PA: Elsevier, Inc.

van der Stok, J., Fitzsimons, M., . . . O'Donnell, T. (2021). Does capsular distension and a short period of countertraction improve outcome following manipulation under anesthesia for the treatment of primary adhesive capsulitis of the glenohumeral joint? *Journal of Shoulder and Elbow Surgery*, 31(4), 772-781.

Van Vulpen, L., Lafeber, F., ...Mastbergen, S.C. (2025). Hemophilic Arthropathy. G.S. Firestein & R.C. Budd (Eds.). *Firestein & Kelley's Textbook of Rheumatology* (12), (pp. 2146-2158 e5.). Philadelphia,

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 38 of 39

PA: Elsevier, Inc.

Wang, H., Shin, A. Y., . . . Spinner, R. J. (2023). Secondary Procedures for Brachial Plexus Injuries. H. R. Winn (Ed.). Youmans & Winn Neurological Surgery (8), (pp. 2185-2193). Philadelphia: Elsevier, Inc.

Wellington, I. J., Davey, A. P., . . . Mazzocca, A. D. (2022)..Management of Failed Rotator Cuff Repairs: A Review Orthopedic Clinics of North America, 53(4), 473-482.

Whittle, A. P. (2021). Malunited Fractures. F. M. Azar & J. H. Beaty (Eds.). Campbell's Operative Orthopaedics (14), (pp. 3127-3191). Philadelphia: Elsevier, Inc.

Yiannakopoulos, C. K., Delis, S. & Sachinis, N. (2022). Internal fixation of a periprosthetic fracture after Copeland shoulder resurfacing. A case report, literature review, and proposed treatment algorithm. Journal of Shoulder and Elbow Surgery, 2(2), 194-200.

SEARCH TERMS

Not Applicable

CENTERS FOR MEDICARE AND MEDICAID SERVICES (CMS)

Shoulder Arthroplasty is not addressed in specific National or Regional Medicare coverage determinations or policies.

PRODUCT DISCLAIMER

- Services are contract dependent; if a product does not cover a service, medical policy criteria do not apply.
- If a commercial product (including an Essential Plan or Child Health Plus product) covers a specific service, medical policy criteria apply to the benefit.
- If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit.
- If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.
- If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line.

POLICY HISTORY/REVISION

Committee Approval Dates

09/17/26

Medical Policy: Orthopedic Joint Procedures of the Shoulder for Managed Medicaid (MMC), Health and Recovery Plan (HARP), Child Health Plus (CHP), and Essential Plan (EP) Members

Policy Number: 7.01.125

Page: 39 of 39

Date	Summary of Changes
01/01/27	Original Effective Date
09/17/26	New Policy