Rotator Cuff Injury

Clinical Guidelines for Medical Necessity Review

Version: V4.0
Effective Date: December 29, 2022

Important Notices

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Other Notices:

Guideline Information:

Specialty Area: Diseases & Disorders of the Musculoskeletal System (M00-M99)
CarePath Group: Shoulder
CarePath Name: Rotator Cuff Injury
Type: [**X**] Adult (18+ yo) | [_] Pediatric (0-17yo)

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Literature review current through: December 29, 2022
Document last updated: December 29, 2022

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Care Path Clinical Discussion

Rotator cuff tears are a common cause of pain and disability among adults. A torn rotator cuff weakens the shoulder. This means that many daily activities, like hair combing or getting dressed, may become painful and difficult.

Defining whether a rotator cuff tear is acute has relevance to treatment. In evaluating patients, the surgeon should attempt to correctly identify patients with acute tears instead of patients with pre-existing chronic tears that became symptomatic after an injury event. A discrete traumatic event is more suggestive of acute tear.

Physical examination findings, including supraspinatus and infraspinatus muscle atrophy and internal and external rotation lag signs, may indicate larger and more chronic rotator cuff tears.

It is crucial to evaluate rotator cuff muscle quality with computed tomography (CT) or magnetic resonance imaging (MRI). Chronic and large tears are associated with muscle atrophy and fatty replacement, which correlate with inferior functional outcomes after rotator cuff repair. Early repair of acute rotator cuff tears might mitigate the development of chronic tendon and muscle pathology and improve functional outcomes.

Always determine the medical necessity of shoulder surgery on a case-by-case basis.

Rotator cuff injuries can present acutely, chronically, or acute-on-chronic. Acute onset of pain often occurs as the sequela of a traumatic event, such as falling onto the shoulder or lifting a heavy object. Although they can affect any individual, acute injuries typically occur in younger populations.[1] They can be associated with a dramatic increase in pain and rapid decline in function. Chronic injuries tend to afflict older adults[2] or those subjected to repetitive overhead activities, such as overhead athletes and laborers. These patients experience a more subtle, gradual decrease in strength.

Rotator cuff abnormality usually presents as a dull, aching pain in the anterolateral aspect of the shoulder and lateral deltoid region. The pain peaks toward the end of the day and increases during overhead activities with the arm abducted greater than 90°. A common complaint is night pain and difficulty sleeping on the affected side. While often a reliable harbinger of rotator cuff disorder, pain is by no means ubiquitous. One study demonstrated that up to half of the asymptomatic subjects older than 60 years have a full-thickness or partial-thickness rotator cuff tear on MRI. Weakness, especially during arm abduction, is a more variable finding in

rotator cuff pathology. Often, the amount of weakness during arm abduction correlates with the extent of abnormality; partial-thickness supraspinatus tendon tears demonstrate more resistive strength than full-thickness massive tears. However, even those with massive cuff tears can have remarkable resistive strength, owing to compensation by the deltoid and other accessory muscles. Numbness and tingling are only rarely associated with rotator cuff disorder. Therefore if these symptoms are present, an alternative diagnosis of neurologic origin, for example, cervical radiculopathy, should be suspected.

The information contained herein gives a general overview of the pathway of this specific diagnosis, beginning with initial presentation, recommended assessments, and treatment options as supported by the medical literature and existing guidelines. It should be noted that the care of patients can be complex. The information below is meant to support clinical decision making in adult patients. It is not necessarily applicable to every case, as the entire clinical picture (including comorbidities, history, etc.) should be considered.

Key Information

- According to Handoll et al., imaging is not indicated for shoulder pain in the primary care setting unless serious pathology is suspected. Imaging and surgical intervention should only be considered after conservative treatment has failed.[3]
    - Shoulder pain is the third most common musculoskeletal complaint at the primary care office.[4] Rotator cuff–related ailments account for the vast majority (65%) of shoulder-related visits.
- Each year, almost 2 million people in the United States visit their doctors because of a rotator cuff problem.
    - Rotator cuff tears (RCT) are the most common cause of shoulder disability. There has been a proportional increase in RCT prevalence with the rising trend of an aging population.
    - In adults, rotator cuff injury is the most common tendon injury seen and treated. Statistically, approximately 30% of adults aged over 60 have a tear, and 62% of adults over 80 have tears.[5]
    - Smoking is a known risk factor.
    - Another risk factor is family history. Other risk factors include trauma, hypercholesterolemia, and occupations or activities requiring significant overhead activity.[5,6]
- Correlate MRI with manual motor testing of shoulder internal rotation (belly-press and lift-off tests), external rotation (external rotation lag test), and abduction (Jobe test) to determine the integrity of the subscapularis, infraspinatus/teres minor, and supraspinatus muscles, respectively. Rotator cuff abnormalities are detected in up to 35% of MRI[6] and 23% of ultrasonography[7] examinations performed in asymptomatic shoulders.

- The American Academy of Orthopedic Surgeons developed recommendations, determining that high-level evidence of surgical treatment for full-thickness tears was weak.[8] In the same article, the group determined appropriate use criteria based on available data and expert opinion. The authors reviewed five treatment classes.
    - Non-surgical management is always appropriate, providing they are responding with improved function and decreased pain.
    - Repairs can be appropriate even if the patient responds to non-surgical care.
    - For healthy patients who remain symptomatic, repair is the appropriate treatment.
    - For chronic, massive tears, debridement/partial repair or reconstruction may be indicated.
    - For those with painful pseudoparalysis with an irreparable tear, arthroplasty may be appropriate.[8]
    - Patients who respond to non-surgical care will do so in 6–12 weeks.[8]
    - Any patient with asymptomatic tears should have nonoperative management.
    - Newly diagnosed, symptomatic rotator cuff tears may start with physical therapy addressing core and scapular muscle strengthening. This approach has similar clinical outcomes compared to surgical repair for small and medium-sized tears. Additionally, therapy is an effective primary treatment modality in most patients, even with full-thickness rotator cuff tears followed over two years. Physical examination should include both affected and unaffected shoulders and observation and palpation for atrophy and asymmetry, shoulder range of motion, motor and sensory examination, and special tests.
- Reserve advanced imaging for cases with failed conservative treatment or when a high probability of tear exists.
    - Radiographic imaging can spot other sources of shoulder pain, such as calcific tendinitis, glenohumeral arthritis, and proximal humerus fractures.
    - MRI has become the method of choice in diagnosing soft-tissue abnormalities of the shoulder. Ultrasonography allows for dynamic assessment of rotator cuff tendons, but the accuracy of the results is limited to the skills of the interpreting radiologist.
    - Shoulder arthrography is beneficial in cases where traditional imaging methods do not delineate the suspected abnormality.
    - Contrast-enhanced computed tomography is mostly used to visualize rotator cuff tendons in cases where MRI cannot be used and ultrasonography is not available.
- Quite often, subacromial injections with corticosteroids are frequently employed in the setting of rotator cuff tears. However, there is little

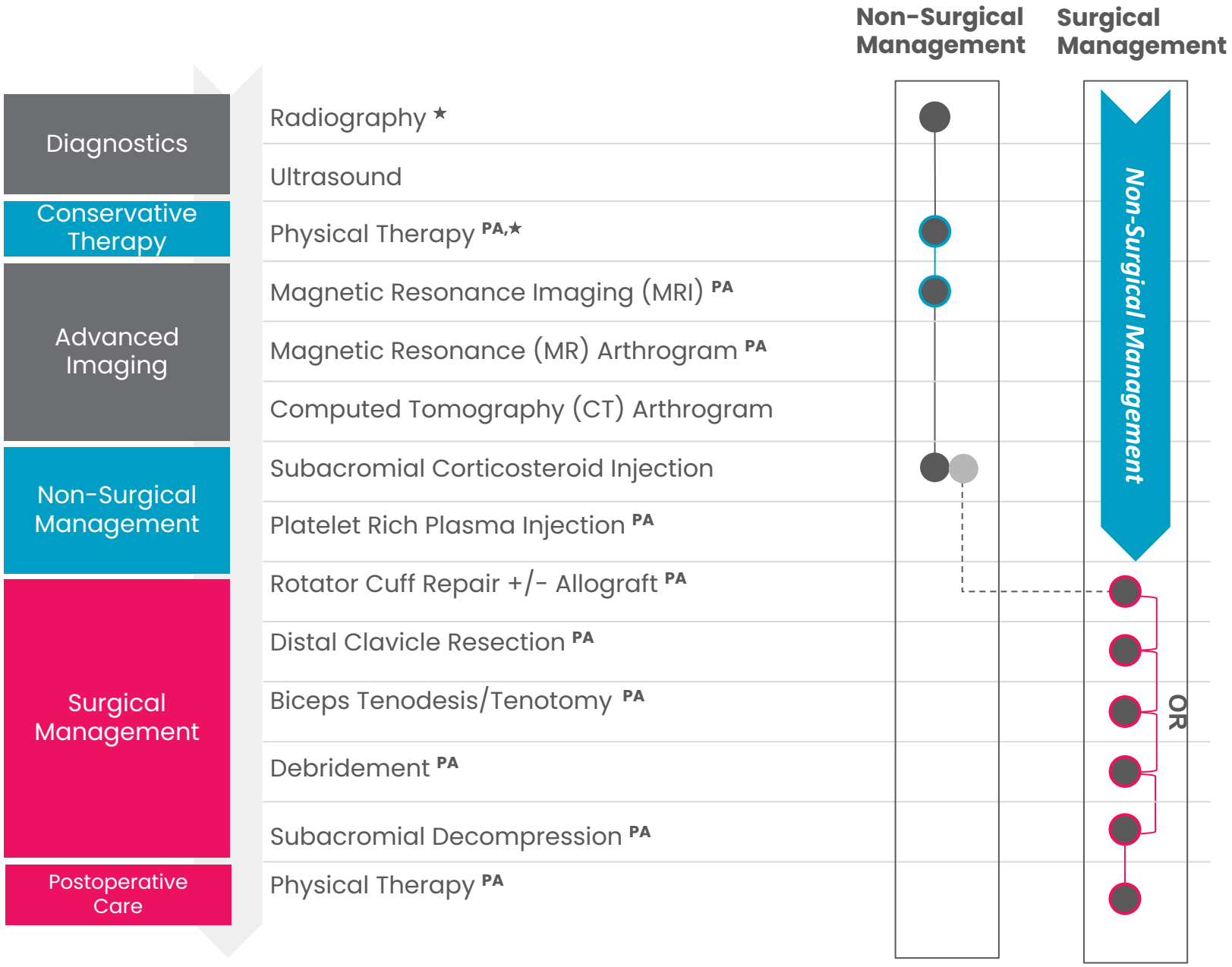
reproducible evidence to support their effectiveness and improve long-term clinical outcomes when used alone.[9]

Definitions

- **Rotator cuff tears:** Tears resulting from a disruption of the tendon(s) of the rotator cuff muscles which attach the humerus to the scapula. The rotator cuff is important in shoulder movements and maintaining glenohumeral joint stability. The supraspinatus tendon is most commonly involved, but the infraspinatus, teres minor, and subscapularis tendons can also be torn.

Rotator Cuff Injury

What is a "Cohere Care Path"?
These Care Paths organize the services typically considered most clinically optimal and likely to be automatically approved. These service recommendations also include the suggested sequencing and quantity or frequency determined clinically appropriate and medically necessary for the management of most patient care scenarios in this Care Path's diagnostic cohort.



Key

PA = Service may require prior authorization
★ = Denotes preferred service
AND = Services completed concurrently
OR = Services generally mutually exclusive

= Non-surgical management prior authorization group of services
= Surgical management prior authorization group of services
= Subsequent service
= Management path moves to a different management path

Care Path Diagnostic Criteria

Disease Classification

Rotator Cuff Injury

ICD-10 Codes Associated with Classification

ICD-10 Code	Code Description/Definition
M25.511	Pain in right shoulder
M25.512	Pain in left shoulder
M25.519	Pain in unspecified shoulder
M62.10	Other rupture of muscle (nontraumatic), unspecified site
M62.111	Other rupture of muscle (nontraumatic), right shoulder
M62.112	Other rupture of muscle (nontraumatic), left shoulder
M62.119	Other rupture of muscle (nontraumatic), unspecified shoulder
M62.121	Other rupture of muscle (nontraumatic), right upper arm
M62.122	Other rupture of muscle (nontraumatic), left upper arm
M62.129	Other rupture of muscle (nontraumatic), unspecified upper arm
M66.211	Spontaneous rupture of extensor tendons, right shoulder
M66.212	Spontaneous rupture of extensor tendons, left shoulder
M66.219	Spontaneous rupture of extensor tendons, unspecified shoulder
M66.811	Spontaneous rupture of other tendons, right shoulder
M66.812	Spontaneous rupture of other tendons, left shoulder
M66.819	Spontaneous rupture of other tendons, unspecified shoulder
M67.813	Other specified disorders of tendon, right shoulder
M67.814	Other specified disorders of tendon, left shoulder
M75.1	Rotator cuff tear or rupture, not specified as traumatic

M75.100	Unspecified rotator cuff tear or rupture of unspecified shoulder, not specified as traumatic
M75.101	Unspecified rotator cuff tear or rupture of right shoulder, not specified as traumatic
M75.102	Unspecified rotator cuff tear or rupture of left shoulder, not specified as traumatic
M75.11	Incomplete rotator cuff tear or rupture not specified as traumatic
M75.110	Incomplete rotator cuff tear or rupture of unspecified shoulder, not specified as traumatic
M75.111	Incomplete rotator cuff tear or rupture of right shoulder, not specified as traumatic
M75.112	Incomplete rotator cuff tear or rupture of left shoulder, not specified as traumatic
M75.12	Complete rotator cuff tear or rupture not specified as traumatic
M75.120	Complete rotator cuff tear or rupture of unspecified shoulder, not specified as traumatic
M75.121	Complete rotator cuff tear or rupture of right shoulder, not specified as traumatic
M75.122	Complete rotator cuff tear or rupture of left shoulder, not specified as traumatic
M75.40	Impingement syndrome of unspecified shoulder
M75.41	Impingement syndrome of right shoulder
M75.42	Impingement syndrome of left shoulder
M75.50	Bursitis of unspecified shoulder
M75.51	Bursitis of right shoulder
M75.52	Bursitis of left shoulder
M75.80	Other shoulder lesions, unspecified shoulder
M75.81	Other shoulder lesions, right shoulder
M75.82	Other shoulder lesions, left shoulder
M71.80	Other specified bursopathies, unspecified site

M71.811	Other specified bursopathies, right shoulder
M71.812	Other specified bursopathies, left shoulder
M75.90	Shoulder lesion, unspecified, unspecified shoulder
M75.91	Shoulder lesion, unspecified, right shoulder
M75.92	Shoulder lesion, unspecified, left shoulder
M79.601	Pain in right arm
M79.602	Pain in left arm
M79.603	Pain in arm, unspecified
M79.621	Pain in right upper arm
M79.622	Pain in left upper arm
M79.629	Pain in unspecified upper arm
S43.421A	Sprain of right rotator cuff capsule, initial encounter
S43.421D	Sprain of right rotator cuff capsule, subsequent encounter
S43.422A	Sprain of left rotator cuff capsule, initial encounter
S46.001A	Unspecified injury of muscle(s) and tendon(s) of the rotator cuff of right shoulder, initial encounter
S46.001D	Unspecified injury of muscle(s) and tendon(s) of the rotator cuff of right shoulder, subsequent encounter
S46.002D	Unspecified injury of muscle(s) and tendon(s) of the rotator cuff of left shoulder, subsequent encounter
S46.010A	Strain of muscle(s) and tendon(s) of the rotator cuff of the shoulder, initial encounter
S46.011A	Strain of muscle(s) and tendon(s) of the rotator cuff of right shoulder, initial encounter
S46.011D	Strain of muscle(s) and tendon(s) of the rotator cuff of right shoulder, subsequent encounter
S46.012A	Strain of muscle(s) and tendon(s) of the rotator cuff of left shoulder, initial encounter
S46.012D	Strain of muscle(s) and tendon(s) of the rotator cuff of left shoulder, subsequent encounter

Presentation and Etiology

Causes and Risk Factors

- Trauma
- Age over 40 years
- Repetitive overhead activities
- Family history

Clinical Presentation

Two presentation types:

- Insidious onset
- Acute onset with injury or trauma/dislocation

Clinical presentation:

- Pain with overhead activities (lateral deltoid pain with activity)
- Pain (lateral deltoid pain with sleep and sleep disruption)
- Weakness with activity away from the body (away from the midline)

Common complaints include:

- Shoulder or arm pain
- Shoulder weakness with activity away from the body
- A decline in performance in overhead sports

Exacerbating factors:

- Overhead activity
- Sleep/nighttime pain

Typical Physical Exam Findings

- The following findings may be found on a physical examination of the shoulder singularly or in combination:
- Tenderness lateral to acromion
- Crepitus with attentive overhead activity
- Positive impingement tests
- Atrophy (found in chronic cases)
- Asymmetric scapular motion/scapular winging
- Pain with shoulder range of motion (ROM)
    - Forward flexion
    - Abduction
    - Internal rotation
    - External rotation
- Passive ROM is greater than active ROM in more acute cases

- Weakness of any:
    - Abduction
    - Internal rotation
    - External rotation

Typical Diagnostic Findings

Strength testing

- Jobe/empty can test
    - Arm abducted to 90°, angled forward 30° (scapular plane), internally rotated - patient unable to hold
- Belly-press test
    - Elbow flexed, arm internally rotated, palm to belly - patient unable to hold
- Lift-off/Gerber's test
    - Arm internally rotated, dorsal aspect of hand to lumbar spine - patient unable to push outward/posteriorly with palm
- External rotation lag test
    - Elbow flexed, performed at 0° and 90° abduction - patient unable to hold external rotation
    - Test specificity 98-100%, LR 6.06
- Hornblower's sign
    - Abduct arm to 90° and externally rotate to 90° - patient unable to hold
- Bear hug test
    - The patient is unable to hold the ipsilateral hand on the opposite deltoid against resistance.
    - Test sensitivity 82-88%, specificity 85%
    - Most specific test
- Full can test
    - Arm abducted to 90°, angled forward 30° (scapular plane), externally rotated - patient unable to hold
    - Test sensitivity 70%, specificity of 81%, LR 3.75
    - Supraspinatus

Other special tests

- Hawkins/Hawkins-Kennedy
    - Shoulder pain elicited by internal rotation with the elbow flexed and the arm abducted
- Painful arc test
    - Pain between 60-120° of active abduction
- Neer/Neer impingement test
    - Pain at the end of a forward elevation arc, scapula stabilized.
- Drop sign

- Arm abducted to 90°, angled forward 30° (scapular plane) - patient unable to slowly lower arm (pain/weakness causes them to drop the arm)
- Test sensitivity 24%, specificity 96%, LR 6.45
- The best test for rotator cuff injury

A combination of 3 or more tests increases the diagnostic value of the exam for supraspinatus pathology.[10]

A painful arc sign, drop-arm sign, and an infraspinatus muscle test have a 91% post-test probability for full-thickness tears. [11]

Care Path Services & Medical Necessity Criteria

Conservative Therapy

Service: Physical Therapy

General Guidelines

- **Units, Frequency, & Duration:** Physical therapy is recommended for up to 6 weeks.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Exercises that focus on a daily range of motion, such as postural exercises, active assisted motion, training of scapula muscles, and active range of motion, have been proven effective. Flexibility of anterior and posterior shoulder and stretching and strengthening of the rotator cuff and scapula are also recommended for physical therapy[12].
- **Exclusions:** Acute rotator cuff tears with gross dysfunction are not recommended for physical therapy. Additionally, patients experiencing pain related to the cervical spine, scapular pain, prior shoulder surgery, glenohumeral arthritis, inflammatory arthritis, adhesive capsulitis, prior proximal humeral fracture, bilateral rotator cuff tears, and dementia should be excluded[12].

Medical Necessity Criteria

Indications

➔ **Physical therapy** is considered appropriate if **ANY** of the following is **TRUE**:

- ◆ The patient has **ANY** positive findings from the presentation list:
  - Pain with overhead activities (lateral deltoid pain with activity)
  - Pain (lateral deltoid pain with sleep and sleep disruption)
  - Weakness with activity away from the body (away from the midline)
- ◆ The patient has **ANY** positive diagnostic tests:
  - Jobe/empty can test
  - Belly-press test
  - Lift-off/Gerber's test

- External rotation lag test
- Hornblower's sign
- Bear hug test
- Full can test
- Hawkins/Hawkins-Kennedy
- Painful arc test
- Neer/Neer impingement test
- Drop sign test

Non-Indications

➔ **Physical therapy** is not considered appropriate if **ANY** of the following is **TRUE**:

- ◆ If the patient has numbness or tingling, they might have a different diagnosis
- ◆ Pain that is radiating may be a radiculopathy

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
97010	Application of hot or cold packs
97012	Application of mechanical traction
97014	Application of electrical stimulation
97016	Application of vasopneumatic devices
97018	Application of paraffin bath
97022	Application of whirlpool
97024	Application of diathermy
97026	Application of infrared modality
97028	Application of ultraviolet modality
97032	Application of manual electrical stimulation
97033	Application of iontophoresis
97034	Application of contrast baths

97035	Application of ultrasound modality
97036	Application of Hubbard tank
97039	Modality service
97110*	Therapeutic exercises to develop strength and endurance, range of motion and flexibility
97112	Neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and proprioception for sitting and standing activities
97113	Aquatic therapy with therapeutic exercises
97116	Gait training including stair climbing
97124	Massage including effleurage and petrissage; Massage including effleurage and tapotement; Massage including effleurage, petrissage and tapotement; Massage including petrissage and tapotement
97139	Therapeutic procedure
97140	Manual therapy techniques
97150	Group therapeutic procedures
97164	Physical therapy re-evaluation of established plan of care, high complexity, typical time with patient 20 minutes; Physical therapy re-evaluation of established plan of care, high complexity, typical time with patient and family 20 minutes; Physical therapy re-evaluation of established plan of care, high complexity, typical time with patient's family 20 minutes
97530	Direct therapeutic activities with use of dynamic activities to improve functional performance, each 15 minutes
97535	Home management training, direct one-on-one contact, each 15 minutes; Self-care management training, direct one-on-one contact, each 15 minutes
97537	Community reintegration training, direct one-on-one contact, each 15 minutes;

	Work reintegration training, direct one-on-one contact, each 15 minutes
97542	Wheelchair management, each 15 minutes
97545	Work conditioning, initial 2 hours; Work hardening, initial 2 hours
97546	Work conditioning, each additional hour; Work hardening, each additional hour
97750	Physical performance measurement with written report, each 15 minutes; Physical performance test with written report, each 15 minutes
97755	Assistive technology assessment with written report, direct one-on-one contact, each 15 minutes
97760	Initial orthotic management and training with assessment and fitting of lower extremities and trunk, each 15 minutes; Initial orthotic management and training with assessment and fitting of lower extremities, each 15 minutes; Initial orthotic management and training with assessment and fitting of lower extremity and trunk, each 15 minutes; Initial orthotic management and training with assessment and fitting of lower extremity, each 15 minutes; Initial orthotic management and training with assessment and fitting of trunk, each 15 minutes; Initial orthotic management and training with assessment and fitting of upper and lower extremities and trunk, each 15 minutes
97761	Initial prosthetic training of lower extremities, each 15 minutes; Initial prosthetic training of lower extremity, each 15 minutes Initial prosthetic training of upper and lower extremities, each 15 minutes; Initial prosthetic training of upper extremities, each 15 minutes; Initial prosthetic training of upper extremity, each 15 minutes
97763	Subsequent orthotic management and training of lower extremities and trunk, each 15 minutes

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97799	Unlisted physical medicine/rehabilitation service or procedure
420	Physical Therapy
421	Physical Therapy: Visit Charge
422	Physical Therapy: Hourly Charge
423	Physical Therapy: Group Rate
424	Physical Therapy: Evaluation/Re-evaluation

429	Physical Therapy: Other Physical Therapy
97163	Evaluation of physical therapy, typically 45 minutes
97161	Evaluation of physical therapy, typically 20 minutes
97162	Evaluation of physical therapy, typically 30 minutes
97168	Re-evaluation of occupational therapy established plan of care, typically 30 minutes
97165	Evaluation of occupational therapy, typically 30 minutes
97166	Evaluation of occupational therapy, typically 45 minutes
97167	Evaluation of occupational therapy established plan of care, typically 60 minutes
G0151	Hhcp-serv of pt,ea 15 min

*Default codes for suggested services

Advanced Imaging

Service: Ultrasound (US)

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** US is recommended when a patient cannot get magnetic resonance imaging (MRI) or magnetic resonance (MR) arthrogram or when there is a suspected small recurrent rotator cuff tear. The sensitivity and specificity of US for rotator cuff tears are comparable to standard MRI.[13-14]
- **Exclusions:**
    - Pain that is related to the cervical spine
    - Scapular pain
    - Previous shoulder surgery
    - Glenohumeral arthritis
    - Inflammatory arthritis
    - Adhesive capsulitis
    - Previous proximal humeral fracture
    - Bi-lateral rotator cuff tears
    - Dementia

Medical Necessity Criteria

Indications

➔ **Ultrasound** is considered appropriate if **ANY** of the following are **TRUE**:

◆ The patient has an **acute rotator cuff tear** and **ALL** of the following are **TRUE**:

- The patient has **2 or more** positive diagnostic tests[10-11]:
    - Jobe/empty can test
    - Belly-press test
    - Lift-off/Gerber's test
    - External rotation lag test
    - Hornblower's sign
    - Bear hug test
    - Full can test
    - Hawkins/Hawkins-Kennedy
    - Painful arc test
    - Neer/Neer impingement test

        - Drop arm test
    - Inability to work or significantly impacted activities of daily living (ADLs)
- The patient has an **chronic rotator cuff tear** and **ALL** of the following are **TRUE**:
    - The patient has **2 or more** positive diagnostic tests[10-11]:
        - Jobe/empty can test
        - Belly-press test
        - Lift-off/Gerber's test
        - External rotation lag test
        - Hornblower's sign
        - Bear hug test
        - Full can test
        - Hawkins/Hawkins-Kennedy
        - Painful arc test
        - Neer/Neer impingement test
        - Drop arm test
    - Radiographs or other imaging studies are non-diagnostic
    - Lack of improvement in pain, function, and strength following an initial trial of conservative therapy, including 6 weeks of physical therapy
    - Symptoms have persisted for more than 3 months despite optimal medical management.
- The patient has **complications from a rotator cuff repair** and **ANY** of the following are **TRUE**[13-14]:
    - Suspicion of recurrent rotator cuff tear
    - Suspected postsurgical complication

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
76881	Ultrasound, extremity, nonvascular, real-time with image documentation; complete
76882	Ultrasound, extremity, nonvascular, real-time with image documentation; limited, anatomic specific

Service: Magnetic Resonance Imaging (MRI) without contrast

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** MRI is useful in the postoperative assessment of the rotator cuff, not only for evaluation of the integrity of the rotator cuff (RC) but also for detecting hardware complications and other etiologies of shoulder pain.
- **Recommended Clinical Approach:** If radiographs or ultrasounds are nondiagnostic, MRI can be performed to evaluate the rotator cuff integrity and assess for complications such as re-tear of the tendon or displacement of suture anchors. MRI can evaluate the size and shape of the tear, the amount of tendon retraction, the prominence of muscle atrophy, and the quality of the remaining RC tendon. In addition, it can accurately evaluate other potential causes of shoulder pain that may mimic RC tears. Full-thickness tears are easier to diagnose on MRI than partial-thickness tears.[13]
- **Exclusions:**
    - Pain that is related to the cervical spine
    - Scapular pain
    - Glenohumeral arthritis
    - Inflammatory arthritis
    - Adhesive capsulitis
    - Previous proximal humeral fracture
    - Bi-lateral rotator cuff tears
    - Dementia

Medical Necessity Criteria

Indications

➔ **MRI** is considered appropriate if **ANY** of the following are **TRUE**:

◆ The patient has an **acute rotator cuff tear** and **ALL** of the following are **TRUE**:

- The patient has **2 or more** positive diagnostic tests[10-11,13-14]:
    - Jobe/empty can test
    - Belly-press test
    - Lift-off / Gerber's test
    - External rotation lag test
    - Hornblower's sign
    - Bear hug test

        - Full can test
        - Hawkins/Hawkins-Kennedy
        - Painful arc test
        - Neer/Neer impingement test
        - Drop arm test
    - Inability to work or significantly impacted activities of daily living (ADLs)
- ◆ The patient has an **chronic rotator cuff tear** and **ALL** of the following are **TRUE**:
    - The patient has **2 or more** positive diagnostic tests[10-11,13-14]:
        - Jobe/empty can test
        - Belly-press test
        - Lift-off/Gerber's test
        - External rotation lag test
        - Hornblower's sign
        - Bear hug test
        - Full can test
        - Hawkins/Hawkins-Kennedy
        - Painful arc test
        - Neer/Neer impingement test
        - Drop arm test
    - Radiographs or other imaging studies are non-diagnostic
    - Lack of improvement in pain, function, and strength following an initial trial of conservative therapy, including 6 weeks of physical therapy
    - Symptoms have persisted for more than 3 months despite optimal medical management.
- ◆ The patient has **complications from a rotator cuff repair** and **ANY** of the following are **TRUE**[13]:
    - Suspicion of recurrent rotator cuff tear
    - Suspected postsurgical complication

Non-Indications

- Imaging is generally not indicated for suspected atraumatic rotator cuff tear unless the patient has failed a 6-week course of conservative care or has red flags/high-risk features.
- Imaging is not indicated in patients with full or limited movement and non-traumatic shoulder pain of fewer than 4 weeks duration.

➔ **MRI without contrast** may not be appropriate if **ANY** of the following is **TRUE**[15]:

- ◆ Non-compatible implanted devices
- ◆ Metallic intraocular foreign bodies

- Claustrophobia

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
73221	MRI Upper Extremity Joint (without contrast)
73220	MRI scan of arm before and after contrast
73222	MRI scan of arm joint with contrast
73223	MRI scan of arm joint before and after contrast
73218	MRI scan of arm
73219	MRI scan of arm with contrast

Service: Magnetic Resonance Arthrogram

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Magnetic resonance (MR) arthrogram is recommended for use on younger, athletic patients (age under 40) who have a suspected partial tear or possible labral pathology. Full-thickness tears are easier to diagnose on MR arthrogram than partial-thickness tears. MR arthrogram is accurate in detecting rotator cuff lesions such as partial articular supraspinatus tendon avulsions and concealed interstitial delaminations. MR arthrogram is generally reserved for cases whereby traditional imaging methods do not clearly delineate suspected abnormality. Magnetic resonance arthrography is particularly useful in assessing partial-thickness rotator cuff tears, which can be overestimated or underestimated on non-contrast images.[13,16-20]
- **Exclusions:**
    - Pain that is related to the cervical spine
    - Scapular pain
    - Glenohumeral arthritis
    - Inflammatory arthritis
    - Adhesive capsulitis
    - Previous proximal humeral fracture
    - Bi-lateral rotator cuff tears
    - Dementia

Medical Necessity Criteria

Indications

➔ **MR arthrogram** is considered appropriate for an **acute rotator cuff tear** if **ALL** of the following are **TRUE**[10-11,13-15,20]:

◆ The patient has **2 or more** positive diagnostic tests:

- Jobe/empty can test
- Belly-press test
- Lift-off/Gerber's test
- External rotation lag test
- Hornblower's sign
- Bear hug test
- Full can test
- Hawkins/Hawkins-Kennedy

        - Painful arc test
        - Neer/Neer impingement test
        - Drop arm test
    - Inability to work or significantly impacted activities of daily living (ADLs)
- ➔ **MR arthrogram** is considered appropriate for a **chronic rotator cuff tear** if **ALL** of the following are **TRUE**[13-15,20]:
    - The patient has **2 or more** positive diagnostic tests:
        - Jobe/empty can test
        - Belly-press test
        - Lift-off / Gerber's test
        - External rotation lag test
        - Hornblower's sign
        - Bear hug test
        - Full can test
        - Hawkins/Hawkins-Kennedy
        - Painful arc test
        - Neer/Neer impingement test
        - Drop arm test
    - Radiographs or other imaging studies are non-diagnostic
    - Lack of improvement in pain, function, and strength following an initial trial of conservative therapy including 6 weeks of physical therapy
    - Symptoms have persisted for more than 3 months despite optimal medical management.
- ➔ **MR arthrogram** is considered appropriate for **complications from a rotator cuff repair** if **ANY** of the following is **TRUE**[13-15,20]:
    - Suspicion of recurrent rotator cuff tear
    - Suspected postsurgical complication

Non-Indications

- Imaging is generally not indicated for suspected atraumatic rotator cuff tear unless the patient has failed a 6-week course of conservative care or has red flags/high-risk features.
- Imaging is not indicated in patients with full or limited movement and non-traumatic shoulder pain of fewer than 4 weeks duration.
- The benefits of gadolinium-enhanced MRI should be weighed against potential negative renal consequences.
- ➔ **MR arthrogram** may not be appropriate if **ANY** of the following are **TRUE**[15]:
    - Non-compatible implanted devices
    - Metallic intraocular foreign bodies

- Claustrophobia

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
73225	MRA of upper extremity MRA of upper extremity with contrast MRA of upper extremity without contrast
C8912	MRA with contrast, lower extremity
C8913	MRA without contrast, lower extremity
C8914	MRA without fol with contrast, lower extremity

Service: Computed Tomography (CT) Arthrogram

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** A contrast-enhanced CT remains a back up technique for visualizing the rotator cuff tendons in those unable to undergo MRI/MR arthrogram and without access to ultrasonography. If they have a prosthesis in place or significant metal artifact this may be the best diagnostic test. The dye will outline the tear better than in a non-contrasted study.
- **Exclusions:**
    - Pain that is related to the cervical spine
    - Scapular pain
    - Previous shoulder surgery
    - Glenohumeral arthritis
    - Inflammatory arthritis
    - Adhesive capsulitis
    - Previous proximal humeral fracture
    - Bi-lateral rotator cuff tears
    - Dementia

Medical Necessity Criteria

Indications

➔ **CT arthrogram** is considered appropriate for an **acute rotator cuff tear** if **ALL** of the following are **TRUE**[13-14]:

- ◆ The patient has **2 or more** positive diagnostic tests[10-11]:
    - Jobe/empty can test
    - Belly-press test
    - Lift-off/Gerber's test
    - External rotation lag test
    - Hornblower's sign
    - Bear hug test
    - Full can test
    - Hawkins/Hawkins-Kennedy
    - Painful arc test
    - Neer/Neer impingement test
    - Drop arm test
- ◆ Inability to work or significantly impacted activities of daily living (ADLs)

- ➔ **CT arthrogram** is considered appropriate for a **chronic rotator cuff tear** if **ALL** of the following are **TRUE**[13-14]:
  - ◆ The patient has **2 or more** positive diagnostic tests[10-11]:
    - Jobe/empty can test
    - Belly-press test
    - Lift-off/Gerber's test
    - External rotation lag test
    - Hornblower's sign
    - Bear hug test
    - Full can test
    - Hawkins/Hawkins-Kennedy
    - Painful arc test
    - Neer/Neer impingement test
    - Drop arm test
  - ◆ Radiographs or other imaging studies are non-diagnostic
  - ◆ Lack of improvement in pain, function, and strength following an initial trial of conservative therapy, including 6 weeks of physical therapy
  - ◆ Symptoms have persisted for more than 3 months despite optimal medical management.
- ➔ **CT arthrogram** is considered appropriate for **complications from a rotator cuff repair** if **ANY** of the following is **TRUE**[13-14]:
  - ◆ Suspicion of recurrent rotator cuff tear
  - ◆ Suspected postsurgical complication

Non-Indications

- ➔ **CT Arthrogram** may not be indicated if **ANY** of the following is **TRUE**:
  - ◆ The patient has a suspected atraumatic rotator cuff tear and **ANY** of the following:
    - Has not completeted 6-week course of conservative care or
    - Does not have red flags/high-risk features
  - ◆ The patient has full or limited movement and non-traumatic shoulder pain of fewer than 4 weeks duration.

Site of Service Criteria

None.

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
23350	Injection procedure for enhanced CT arthrography of

	glenohumeral joint

Non-Surgical Management

Service: Platelet-Rich Plasma (PRP) injection in Partial-Thickness Tears

General Guidelines

- **Units, Frequency, & Duration:** Single injection per presentation or injury. Multiple injections are not proven to be more effective.[21]
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Ultrasound guidance of PRP injections is recommended. It is also indicated for tendinopathy.
- **Exclusions:** Biceps tendon, significant subacromial spur formation (other symptomatic pathology)

Medical Necessity Criteria

Indications

➔ **Platelet-rich plasma (PRP) injection** is considered appropriate if **ALL** of the following are **TRUE**:

- ◆ The patient has **2 or more** positive findings from the presentation list:
  - Pain with overhead activities (lateral deltoid pain with activity)
  - Pain (lateral deltoid pain with sleep and sleep disruption)
  - Weakness with activity away from the body (away from the midline)
- ◆ The patient has **2 or more** positive diagnostic tests[10-11]:
  - Jobe/empty can test
  - Belly-press test
  - Lift-off/Gerber's test
  - Hornblower's sign
  - Bear hug test
  - Full can test
  - Hawkins/Hawkins-Kennedy
  - Painful arc test
  - Neer/Neer impingement test
- ◆ The patient has a partial thickness tear without MRI-visible signs of impingement from a prominent spur from the AC joint.
- ◆ Tendinopathy without significant external impingement from a subacromial or AC joint spur

Non-Indications

- ➔ **Platelet-rich plasma (PRP) injection** is not considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ The tear is a full-thickness rotator cuff tear
  - ◆ Other symptomatic pathologies are associated with the injury

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
0232T	Injection(s), platelet rich plasma, any tissue, including image guidance and preparation

Surgical Management

Service: Rotator Cuff Repair (RCR) +/- Allograft Augmentation

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Surgery is recommended if you have persistent pain or weakness in your shoulder that does not improve with nonsurgical treatment. Indications for RCR with augmentation are not consistent in the literature but usually include revision RCR; large, multi-tendon repairs; or poor-quality degenerative tendon tissue.[22-25]Augmentation could be considered when repairs are at a high risk of retearing or incompletely healing.
- **Exclusions:** Other pathologies (e.g., cervical radiculopathy).

Medical Necessity Criteria

Indications

➔ **Rotator cuff repair** is considered appropriate for an **acute rotator cuff tear** if **ALL** of the following are **TRUE**:

- ◆ The patient has **2 or more** positive diagnostic tests[10-11]:
  - Jobe/empty can test
  - Belly-press test
  - Lift-off/Gerber's test
  - External rotation lag test
  - Hornblower's sign
  - Bear hug test
  - Full can test
  - Hawkins/Hawkins-Kennedy
  - Painful arc test
  - Neer/Neer impingement test
  - Drop arm test
- ◆ Inability to work or significantly impacted activities of daily living (ADLs)

➔ **Rotator cuff repair** for **chronic rotator cuff tear** is considered appropriate if **ALL** of the following are **TRUE**:

- ◆ The patient has **2 or more** positive findings from the presentation list:
  - Pain with overhead activities (lateral deltoid pain with activity)

- Pain (lateral deltoid pain with sleep and sleep disruption)
- Weakness with activity away from the body (away from the midline)

◆ The patient has **2 or more** positive diagnostic tests[10-11]:
- Jobe/empty can test
- Belly-press test
- Lift-off/Gerber's test
- External rotation lag test
- Hornblower's sign
- Bear hug test
- Full can test
- Hawkins/Hawkins-Kennedy
- Painful arc test
- Neer/Neer impingement test
- Drop arm test

◆ The patient's symptoms have lasted more than 6 weeks despite non-surgical management.

◆ Advanced diagnostic imaging (e.g., MRI, CT) demonstrates (high-grade) partial-thickness rotator cuff tear or a full-thickness rotator cuff tear (Cofield classification).[24]

➔ **Rotator cuff repair** is considered appropriate for **complications from a rotator cuff repair** if **ANY** of the following is **TRUE**[24]:

◆ Suspicion of recurrent rotator cuff tear

◆ Suspected postsurgical complication

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
29827	Surgical arthroscopy of shoulder with repair of rotator cuff
23410	Open repair of musculotendinous cuff of shoulder
23412	Open repair of musculotendinous cuff of shoulder
23420	Total reconstruction of rotator cuff avulsion with acromioplasty

29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgical

Service: Distal Clavicle Resection

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** This surgery is recommended for symptomatic acromioclavicular arthrosis.[26]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Distal clavicle resection** is considered appropriate if **ALL** of the following are **TRUE**[26]:

- ◆ Function-limiting pain (e.g., documented loss of shoulder function that interferes with the ability to carry out age-appropriate activities of daily living or demands of employment)
- ◆ The individual demonstrates localized tenderness to palpation of the acromioclavicular (AC) joint **AND ANY** of the following positive orthopedic tests on physical examination when compared to the non-involved side:
  - Cross body adduction test
  - Resisted AC joint extension test
  - Neer impingement test
  - Hawkins-Kennedy impingement test
- ◆ The patient's symptoms have lasted more than 6 weeks despite non-surgical management (physical therapy and corticosteroid injection).
- ◆ Plain radiographs demonstrate findings consistent with pathology in the subacromial space or at the AC joint[27]:
  - Cystic formation in the distal clavicle
  - Presence of osteophytes
  - Osteolysis

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
23120	Partial claviculectomy
23125	Total claviculectomy
29824	Surgical arthroscopy of shoulder with distal claviculectomy
29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgi

Service: Biceps Tenodesis/Tenotomy

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Biceps tenodesis or tenotomy may be indicated in patients with biceps tendon pathology and symptoms that persist for more than 3 months.
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Biceps tenodesis/tenotomy** is considered appropriate if **ALL** of the following are **TRUE**[28]:

- ◆ Function-limiting pain (e.g., loss of shoulder function that interferes with the ability to carry out age-appropriate activities of daily living or demands of employment)
- ◆ The patient has **2 or more** of the following positive orthopedic tests:
  - O'Brien's test
  - Biceps load test
  - Clunk test
  - Anterior slide test
  - Compression Rotation test
  - Speed's test
  - Uppercut test
  - Minimally limited or full shoulder range of motion
- ◆ The patient's symptoms have persisted for more than 3 months
- ◆ Advanced diagnostic imaging studies (e.g., MRI, CT) demonstrate biceps tendon pathology and correlate with the individual's reported symptoms and physical exam findings
  - Subluxation
  - Advanced tendinopathy

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
29807	Surgical arthroscopy of shoulder with repair of SLAP lesion
29828	Surgical arthroscopy of shoulder with biceps tenodesis
23430	Tenodesis of long head of biceps muscle
23405	Tenotomy of shoulder area Tenotomy of single tendon of shoulder area
29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgical

Service: Debridement

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Recommended for patients with a concomitant pathology (e.g., arthritis, frozen shoulder), and the rotator cuff tear is the primary source of pain (e.g., 90% of pain coming from the rotator cuff).
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Debridement** is considered appropriate if **ALL** of the following are **TRUE**:

- ◆ The patient has a rotator cuff injury and **ANY** of the following:
  - Biceps tear
  - Labral tear
  - Arthritis
  - Frozen shoulder
- ◆ The patient has a rotator cuff injury and radiograph findings showing **ANY** of the following:
  - AC joint appears degenerative
  - Bone spurs under the AC joint are compromising space to the rotator cuff (impingement)
  - Mild glenohumeral joint arthritis
- Advanced diagnostic imaging studies (e.g., MRI, CT) demonstrate underlying pathology that correlates with the individual's reported symptoms and physical exam findings
  - Labral tear
  - AC joint arthritis
  - Mild glenohumeral arthritis

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
29822	Surgical arthroscopy of shoulder with debridement Surgical arthroscopy of shoulder with limited debridement
29823	Surgical arthroscopy of shoulder with debridement Surgical arthroscopy of shoulder with extensive debridement
29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgi

Service: Subacromial Decompression

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Procedure may be performed using arthroscopic or fully arthroscopic approaches.
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Subacromial decompression** is considered appropriate if **ALL** of the following are **TRUE**:

- ◆ Advanced imaging diagnostic study shows evidence of impingement and **ANY** of the following:
  - Chronic fibrosis or tendonitis and acromion abnormalities
  - The procedure coincides with the indicated repair of a rotator cuff injury.
  - There is a need for decompression and debridement after a full-thickness rotator cuff tear.

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
23130	Acromioplasty or acromionectomy, partial, with or without coracoacromial ligament repair
23420	Reconstruction of complete shoulder (rotator) cuff avulsion, chronic (includes acromioplasty)
29826	Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament release (ie arch) release, when

	performed
29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgi

Surgical Risk Factors

Patient Medical Risk Stratification

Patient Risk Score	Patient Characteristic	Min Range	Max Range	Guidance
1- Very Low Risk	No known medical problems			
2- Low Risk	Hypertension		180/110 mm Hg	
2- Low Risk	Asthma	peak flow >80% of predicted or personal best value		
2- Low Risk	Prior history of alcohol abuse			Screen for liver disease and malnutrition
2- Low Risk	Prior history of tobacco use			
3- Intermediate Risk	Asthma	peak flow <80% of predicted or personal best value		
3- Intermediate Risk	Active alcohol abuse			
3- Intermediate Risk	Age	65	75	
3- Intermediate Risk	History of treated, stable coronary artery disease (CAD)			
3- Intermediate Risk	Stable atrial fibrillation			
3- Intermediate Risk	Diabetes mellitus	HbA1C >7%		
3- Intermediate Risk	Morbid obesity	BMI 30	BMI 40	
3- Intermediate Risk	Anemia	hemoglobin <11 (females), <12 (males)		Workup to identify etiology
3- Intermediate Risk	HIV	CD4 <200 cells/mm3		Get clearance from HIV specialist

3- Intermediate Risk	Rheumatologic disease			Preoperative consultation with rheumatologist re: perioperative medication management
3- Intermediate Risk	Peripheral vascular disease or history of peripheral vascular bypass	ankle-brachial pressure index (ABPI) <0.9		Preoperative consultation with vascular surgeon
3- Intermediate Risk	History of venous thromboembolism (VTE)			
3- Intermediate Risk	Well-controlled obstructive sleep apnea			
3- Intermediate Risk	Malnutrition	transferrin <200 mg/dL albumin <3.5 g/dL prealbumin <22.5 mg/dL total lymphocyte count <1200-1500 cell/mm3 BMI <18		Preoperative consultation with nutritionist
3- Intermediate Risk	Active tobacco Use			Enroll patient in smoking cessation program
4- High Risk	Diabetes mellitus with complications	HbA1c >8%		
4- High Risk	Age	76	85	
4- High Risk	Oxygen dependent pulmonary disease			
4- High Risk	Sickle cell anemia			
4- High Risk	Obesity	BMI 40		
4- High Risk	Cirrhosis, history of hepatic decompensation or variceal bleeding			

4- High Risk	Impaired cognition; dementia			
4- High Risk	Compensated CHF			
4- High Risk	Cerebrovascular disease			
4- High Risk	Uncontrolled or suspected obstructive sleep apnea (OSA)			
4- High Risk	Renal insufficiency	serum creatinine >1.5 mg/dL or creatinine clearance <100 mL/min		
4- High Risk	Opioid dependence			
4- High Risk	End Stage Liver Disease			
4- High Risk	Uncontrolled Seizure Disorder			
4- High Risk	History of Malignant Hyperthermia			
5- Very High Risk	Cardiovascular: unstable angina, recent myocardial infarction (60 days), uncontrolled atrial fibrillation or other high-grade abnormal rhythm, severe valvular disease, decompensated heart failure			
5- Very High Risk	Primary pulmonary hypertension			Preoperative consultation with pulmonologist warranted
5- Very High Risk	Cirrhosis or severe liver disease, history of hepatic decompensation or variceal bleeding			
5- Very High Risk	Severe frailty, dependence for ADLs, or history of 3 or more falls in last 6 mos			
5- Very High Risk	Obesity		BMI >50	
5- Very High Risk	Age		>85	

5- Very High Risk	History of VTE with CI to anticoagulation, failure of anticoagulation, cessation of anticoagulation therapy secondary to bleeding			Preoperative consultation with hematologist or internist
5- Very High Risk	Renal failure requiring dialysis			
5- Very High Risk	Immunosuppression			
5- Very High Risk	Chronic Pain			

Postoperative Care

Service: Physical Therapy

General Guidelines

- **Units, Frequency, & Duration:** There is insufficient evidence on the appropriate timing of rehabilitation after a rotator cuff surgery.[29]
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Starting with a period of immobilization (1-4 weeks post-acute) with patients who have specific risk factors for stiffness (small tear size, worker's compensation, under age 50, calcific tendinitis, adhesive capsulitis, concomitant labral repair) improves their ability to heal from surgery.[30] Appropriate physical therapy modalities include continuous passive motion, cryotherapy, joint mobilization, and joint exercises.[29]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Physical therapy** is considered appropriate if **ALL** of the following are **TRUE**:

- ◆ The patient underwent corrective shoulder surgery.

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
97010	Application of hot or cold packs
97012	Application of mechanical traction
97014	Application of electrical stimulation
97016	Application of vasopneumatic devices

97018	Application of paraffin bath
97022	Application of whirlpool
97024	Application of diathermy
97026	Application of infrared modality
97028	Application of ultraviolet modality
97032	Application of manual electrical stimulation
97033	Application of iontophoresis
97034	Application of contrast baths
97035	Application of ultrasound modality
97036	Application of Hubbard tank
97039	Modality service
97110*	Therapeutic exercises to develop strength and endurance, range of motion and flexibility
97112	Neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and proprioception for sitting and standing activities
97113	Aquatic therapy with therapeutic exercises
97116	Gait training including stair climbing
97124	Massage including effleurage and petrissage; Massage including effleurage and tapotement; Massage including effleurage, petrissage and tapotement; Massage including petrissage and tapotement
97139	Therapeutic procedure
97140	Manual therapy techniques
97150	Group therapeutic procedures
97164	Physical therapy re-evaluation of established plan of care, high complexity, typical time with patient 20 minutes; Physical therapy re-evaluation of established plan of care, high complexity, typical time with patient and family 20

	minutes; Physical therapy re-evaluation of established plan of care, high complexity, typical time with patient's family 20 minutes
97530	Direct therapeutic activities with use of dynamic activities to improve functional performance, each 15 minutes
97535	Home management training, direct one-on-one contact, each 15 minutes; Self-care management training, direct one-on-one contact, each 15 minutes
97537	Community reintegration training, direct one-on-one contact, each 15 minutes; Work reintegration training, direct one-on-one contact, each 15 minutes
97542	Wheelchair management, each 15 minutes
97545	Work conditioning, initial 2 hours; Work hardening, initial 2 hours
97546	Work conditioning, each additional hour; Work hardening, each additional hour
97750	Physical performance measurement with written report, each 15 minutes; Physical performance test with written report, each 15 minutes
97755	Assistive technology assessment with written report, direct one-on-one contact, each 15 minutes
97760	Initial orthotic management and training with assessment and fitting of lower extremities and trunk, each 15 minutes; Initial orthotic management and training with assessment and fitting of lower extremities, each 15 minutes; Initial orthotic management and training with assessment and fitting of lower extremity and trunk, each 15 minutes; Initial orthotic management and training with assessment and fitting of lower extremity, each 15 minutes; Initial orthotic management and training with assessment and fitting of trunk, each 15 minutes; Initial orthotic management and training with assessment and fitting of upper and lower extremities and trunk, each 15 minutes

97761	Initial prosthetic training of lower extremities, each 15 minutes; Initial prosthetic training of lower extremity, each 15 minutes Initial prosthetic training of upper and lower extremities, each 15 minutes; Initial prosthetic training of upper extremities, each 15 minutes; Initial prosthetic training of upper extremity, each 15 minutes
97763	Subsequent orthotic management and training of lower extremities and trunk, each 15 minutes Subsequent orthotic management and training of lower extremity and trunk, each 15 minutes Subsequent orthotic management and training of lower extremity, each 15 minutes Subsequent orthotic management and training of upper and lower extremities and trunk, each 15 minutes Subsequent orthotic management and training of upper extremities and trunk, each 15 minutes Subsequent orthotic management and training of upper extremities, each 15 minutes Subsequent orthotic management and training of upper extremity and trunk, each 15 minutes Subsequent orthotic management and training of upper extremity, each 15 minutes Subsequent orthotic management of lower extremities and trunk, each 15 minutes Subsequent orthotic management of lower extremity and trunk, each 15 minutes Subsequent orthotic management of lower extremity, each 15 minutes Subsequent orthotic management of upper and lower extremities and trunk, each 15 minutes Subsequent orthotic management of upper extremities and trunk, each 15 minutes Subsequent orthotic management of upper extremities, each 15 minutes Subsequent orthotic management of upper extremity and trunk, each 15 minutes Subsequent orthotic management of upper extremity, each 15 minutes

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	Subsequent prosthetic management of upper extremities, each 15 minutes Subsequent prosthetic management of upper extremity and trunk, each 15 minutes Subsequent prosthetic management of upper extremity, each 15 minutes Subsequent prosthetic training of lower extremity, each 15 minutes Subsequent prosthetic training of upper and lower extremities and trunk, each 15 minutes Subsequent prosthetic training of upper extremities and trunk, each 15 minutes Subsequent prosthetic training of upper extremities, each 15 minutes Subsequent prosthetic training of upper extremity and trunk, each 15 minutes Subsequent prosthetic training of upper extremity, each 15 minutes Subsequent orthotic management and training of lower extremities, each 15 minutes Subsequent orthotic management of lower extremities, each 15 minutes Subsequent orthotic training of lower extremities and trunk, each 15 minutes Subsequent orthotic training of lower extremities, each 15 minutes Subsequent orthotic training of lower extremity and trunk, each 15 minutes Subsequent prosthetic management and training of lower extremities, each 15 minutes Subsequent prosthetic management of lower extremities, each 15 minutes Subsequent prosthetic training of lower extremities and trunk, each 15 minutes Subsequent prosthetic training of lower extremities, each 15 minutes Subsequent prosthetic training of lower extremity and trunk, each 15 minutes

97799	Unlisted physical medicine/rehabilitation service or procedure
420	Physical Therapy
421	Physical Therapy: Visit Charge
422	Physical Therapy: Hourly Charge
423	Physical Therapy: Group Rate
424	Physical Therapy: Evaluation/Re-evaluation
429	Physical Therapy: Other Physical Therapy
97163	Evaluation of physical therapy, typically 45 minutes
97161	Evaluation of physical therapy, typically 20 minutes
97162	Evaluation of physical therapy, typically 30 minutes
97168	Re-evaluation of occupational therapy established plan of care, typically 30 minutes
97165	Evaluation of occupational therapy, typically 30 minutes
97166	Evaluation of occupational therapy, typically 45 minutes
97167	Evaluation of occupational therapy established plan of care, typically 60 minutes
G0151	Hhcp-serv of pt,ea 15 min

*Default codes for suggested services

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Clinical Guideline Revision History/Information

Original Date May 19, 2020	
Review History	
September 1, 2020 (V.2)	Approving Physician: Dr. Brian Covino
November 19 2021 (V.3)	Reviewing Physician: Dr. Scott Duncan Approving Physician: Dr. Brian Covino
December 29, 2022 (V.4)	Reviewing Physician: Dr. Edwin Spencer Approving Physician: Dr. Traci Granston