Labral Tear

Clinical Guidelines for Medical Necessity Review

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

Important Notices

Notices & Disclaimers:

GUIDELINES SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION MAKING OF END USERS.

Cohere Health, Inc. (**"Cohere"**) has published these clinical guidelines to determine the medical necessity of services (the **"Guidelines"**) for informational purposes only and solely for use by Cohere's authorized **"End Users."** These Guidelines (and any attachments or linked third party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use are to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice.

Other Notices:

Guideline Information:

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

Physician Author: Mandy Armitage, MD
Peer-Reviewed/Edited by: Edwin Spencer, MD, Brian Covino, MD (Orthopedic Surgeon, Knee/Hip & Total Joint Replacement), Traci Granston, MD (Orthopedic Surgeon)
Literature review current through: December 29, 2022
Document last updated: December 29, 2022

Table of Contents

Care Path Clinical Discussion

Labral pathology is a complex clinical problem. Specifically, treatment of superior labral anterior to posterior (SLAP) injuries, found in individuals with repetitive overhead activity requirements (e.g., throwers, laborers), remains a subject of debate in the literature, despite being described and classified decades ago.[1] Labral injuries also commonly occur with glenohumeral dislocation, over 95% of which are in the anterior direction.[2] Bone loss and capsular injury are also present in most cases of glenohumeral instability which may lead to recurrent instability.[3,4] History and physical examinations are helpful when formulating differential diagnoses, but labral pathology is often associated with vague complaints and findings. Magnetic resonance imaging (MRI) and magnetic resonance arthrogram are the imaging modalities of choice for a labral tear diagnosis.[5,6] However, there is increasing evidence that SLAP tears are frequently present on MRI in asymptomatic individuals, including overhead athletes.[7,8]

There are multiple, distinctive types of labral pathology:

- Superior labral tears: These types of tears are very common, and the risk increases with age. Patients over the age of 40 who have not had a traumatic etiology should be initially treated non-operatively.
- Anterior labral tears: These tears typically occur after an anterior shoulder dislocation and can include periosteal stripping (ALPSA lesion) or bone loss. The extent of the labral tear and the size of any associated Hill Sachs lesion significantly impacts the management. In addition, the age and gender of the patient and the type of play (impact or not) impacts decision-making. These patients should be strongly considered for surgical stabilization after their first dislocation. Patients with anterior labral tears typically have apprehension and stability, but very little pain. Surgical repair is usually required to restore a pain-free, stable joint.
- Posterior labral tears: Posterior labral tears are usually associated with more pain and more subtle instability than anterior labral tears. Surgical repair is usually required to restore a pain-free, stable joint.

While conservative management is recommended for patients without significant bone loss, surgical intervention may be required for persistent shoulder complaints. Depending upon the type of SLAP tear and the patient's age and activity level (e.g., young and active), labral repair may be appropriate.[9] Patients over the age of 40 do not typically fare as well after labral repair.[10] Guidelines for surgical approach to labral tear are lacking, and the literature shows ongoing controversy on this topic.[11] In the event of instability with bone loss, glenoid rim reconstruction may be appropriate.[3]

The information contained herein gives a general overview of the pathway of labral tears, beginning with initial presentation, recommended assessments, and treatment options as supported by the medical literature and existing guidelines (if applicable). It should be noted that the care of musculoskeletal injuries 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

- If the patient has a suspected labral tear or instability and does not present to a musculoskeletal specialist, refer as follows[12]:
  - Refer to orthopedics early for a high-level athlete; initiate physical therapy while waiting for a consult.
  - Refer to physical therapy before advanced imaging for patients with lower activity levels or who are not candidates for surgery.
  - Refer to orthopedics before initiating advanced imaging when the clinical picture is unclear or uncertain.
- Labral tears are associated with pain and shoulder dysfunction. SLAP tears occur in throwing athletes and account for about 3% of shoulder injuries in tertiary referral centers. SLAP lesions are most common for patients between 20-29 and 40-49.[1]
- MRI and MR arthrogram are the imaging modalities of choice for diagnosing.[5,6]
- Conservative management is appropriate in most cases.
  - Only select patients (e.g., young and active) achieve good outcomes with labral repair.[10]
  - There is no consensus or guidelines for labral repair.[11]
- Surgical referral indications include:
  - Young athletes, for whom labral repair is often recommended[12]
  - Dislocations with significant labral injury and bone loss[3]

Definitions

A **SLAP (Superior Labrum Anterior and Posterior) injury** occurs when the superior part of the labrum is injured (i.e., where the biceps tendon attaches to the labrum). The tear occurs in the front and back of the attachment between the biceps tendon and the labrum.[13]

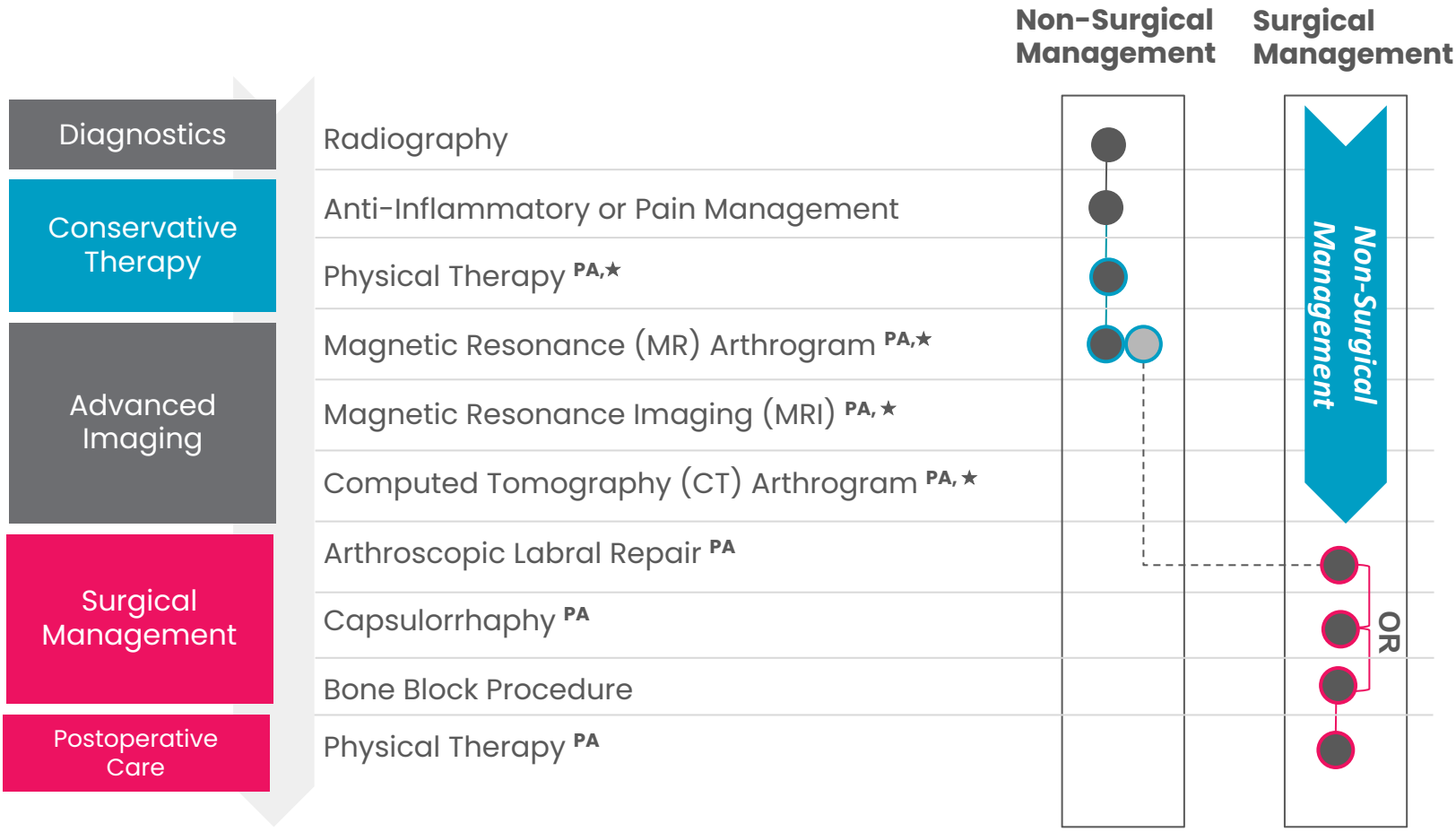
Anterior Bankart Lesions: Lesions located in the anterior part of the glenoid labrum. They are common in patients with shoulder dislocations.

Posterior Bankart Lesions: Lesions located in the posterior part of the glenoid labrum. These usually occur from overhead activities.

Multidirectional Instability: This type of instability occurs when the glenohumeral joint is lax in multiple directions.

Labral Tear

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

CarePath Diagnostic Criteria

Disease Classification

Shoulder Labral Tear

ICD-10 Codes Associated with Classification

ICD-10 Code	Code Description/Definition
M25.311	Other instability, right shoulder
M25.312	Other instability, left shoulder
M25.319	Other instability, unspecified shoulder
M25.511	Pain in right shoulder
M25.512	Pain in left shoulder
M25.519	Pain in unspecified 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	Dislocation and sprain of joints and ligaments of shoulder girdle
S43.0	Subluxation and dislocation of shoulder joint
S43.00	Unspecified subluxation and dislocation of shoulder joint
S43.001	Unspecified subluxation of right shoulder joint
S43.002	Unspecified subluxation of left shoulder joint
S43.003	Unspecified subluxation of unspecified shoulder joint
S43.004	Unspecified dislocation of right shoulder joint
S43.005	Unspecified dislocation of left shoulder joint
S43.006	Unspecified dislocation of unspecified shoulder joint

S43.01	Anterior subluxation and dislocation of the humerus
S43.011	Anterior subluxation of right humerus
S43.012	Anterior subluxation of left humerus
S43.013	Anterior subluxation of unspecified humerus
S43.014	Anterior dislocation of right humerus
S43.015	Anterior dislocation of left humerus
S43.016	Anterior dislocation of unspecified humerus
S43.02	Posterior subluxation and dislocation of humerus
S43.021	Posterior subluxation of right humerus
S43.022	Posterior subluxation of left humerus
S43.023	Posterior subluxation of unspecified humerus
S43.024	Posterior dislocation of right humerus
S43.025	Posterior dislocation of left humerus
S43.026	Posterior dislocation of unspecified humerus
S43.03	Inferior subluxation and dislocation of humerus
S43.031	Inferior subluxation of right humerus
S43.032	Inferior subluxation of left humerus
S43.033	Inferior subluxation of unspecified humerus
S43.034	Inferior dislocation of right humerus
S43.035	Inferior dislocation of left humerus
S43.036	Inferior dislocation of unspecified humerus
S43.08	Other subluxation and dislocation of shoulder joint
S43.081	Other subluxation of right shoulder joint
S43.082	Other subluxation of left shoulder joint
S43.083	Other subluxation of unspecified shoulder joint
S43.084	Other dislocation of right shoulder joint
S43.085	Other dislocation of left shoulder joint
S43.086	Other dislocation of unspecified shoulder joint
S43.43	Superior glenoid labrum lesion

S43.431	Superior glenoid labrum lesion of right shoulder
S43.432	Superior glenoid labrum lesion of left shoulder
S43.439	Superior glenoid labrum lesion of unspecified shoulder

Presentation and Etiology

Causes and Risk Factors

Overhead athletes are at a higher risk of superior labral tears without instability. Anterior tears and instability are associated with a partial or complete dislocation.[5]

Clinical Presentation

The presentation of a labral tear depends upon the location of the lesion. Tears due to dislocation versus overuse present differently. Common complaints include[3,12]:

- Instability
- Pain with overhead lifting or throwing
- Weakness
- Clicking or popping
- A decline in velocity or overhead function
- History of dislocation
- Recurrent dislocation or subluxation with lower energy events or activities of daily living

Typical Physical Exam Findings

For instability complaints, compare findings in the affected shoulder to the contralateral shoulder. Findings may include[3,14]:

Anterior Labral Tear

- Pain with humeral head load and shift
- Apprehension test:
    - Apprehension with an anterior force on the posterior humeral head with the arm abducted and externally rotated
- Relocation test:
    - Relief of apprehension with posterior force on the humeral head in the same position
- Sense of instability with the translation of the humeral head (anterior translation or posterior translation)

SLAP Tear[14]

- Pain with cross-body adduction and internal rotation
- Special tests*
    - O'Brien test:

        - With the arm forwardly flexed 90° and adducted 10°, the elbow extended, and the arm internally rotated so that the thumb points downward, a positive test occurs with reproduction of pain upon resisted downward force on the arm. This is followed by decreased pain with resisted downward force with the arm fully externally rotated and supinated.
    - Crank test:
        - A positive test reproduces pain with or without a click when the arm is abducted to the scapular plane and internally and externally rotated with applied axial force.
    - Modified dynamic labral shear test:
        - With the elbow flexed to 90°, the arm is placed in maximal abduction, and external rotation then lowered back down. A positive test reproduces the pain or a click between 90° and 120° of abduction.
    - Biceps load I test:
        - A positive test results in resisted elbow flexion as the elbow is flexed to 90° and the arm is abducted to 90° with external rotation. The patient is supine.
    - Biceps load II test:
        - A positive test results in pain with resisted elbow flexion as the elbow is flexed to 120° and the arm is abducted to 90° with external rotation. The patient is supine.
    - Anterior slide test:
        - A positive test reproduces pain or a click with resisted anterior and superior force applied to the elbow while the patient has their hands on their hips.

    *Commonly performed special tests have little to no diagnostic utility for SLAP tears. Combining tests can marginally improve accuracy.

<u>Posterior Labral Tear</u>

- Posterior shoulder pain
- Occurs with blocking or sport
- Pain with posterior load and shift test and jerk test and may have a clicking sensation
- Pain with push up or bench press

Typical Diagnostic Findings

A radiograph may show Bankart or Hill-Sachs lesion (apical oblique, Didiée, West Point, Stryker notch, or AP views) in the event of dislocation/instability. It is not necessary to diagnose a labral tear.[3,5]

CarePath Services & Medical Necessity Criteria

Conservative Therapy

Service: Physical Therapy

General Guidelines

- **Units, Frequency, & Duration:** There is insufficient evidence available to support recommendations regarding units, duration, and frequency.[12]
- **Criteria for Subsequent Requests:** The patient is progressing but has not yet obtained all goals.
- **Recommended Clinical Approach:**
  Labral tears:
  - Attempt non-surgical management before surgical intervention.[15]
  - Rehabilitation is critical to address ROM and any biomechanical deficits (e.g., sick scapula syndrome) in overhead athletes.
  - Professional throwers with type II tears may have a more successful return to play (RTP) with non-surgical management than with surgical intervention.[16]

  Instability
  - Rehabilitation is appropriate for most patients with glenohumeral instability.[3]
  - Physical therapy is appropriate to improve the strength of the surrounding musculature. It may be unsuccessful in the event of bone loss.
  - Activity level and degree of bone loss should dictate treatment.[3]
  - The protocol should include motion progressions to the periscapular region and rotator cuff strengthening.[3]
- **Exclusions:** None.

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:

- Instability
- Pain

- Weakness
- Clicking or popping
- A decline in velocity or overhead function
- History of dislocation
- Recurrent dislocation or subluxation with lower energy events or activities of daily living

◆ The patient has **ANY** positive findings from the physical exam list:

- Instability
- Pain with cross-body adduction and internal rotation
- Positive O'Brien test
- Positive Crank test
- Positive modified dynamic labral shear test
- Positive biceps load I test
- Positive biceps load II test
- Positive anterior slide test

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
	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 Subsequent orthotic training of lower extremity, each 15 minutes Subsequent orthotic training of upper and lower extremities and trunk, each 15 minutes
97763	Subsequent orthotic training of upper extremities and trunk,

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

Advanced Imaging

Service: Magnetic Resonance Imaging (MRI)

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:**
  - Imaging begins with radiography.
  - Magnetic resonance (MR) arthrography is preferred for evaluating the labrum and associated structures. Use MRI may be used if MR arthrography is contraindicated or if there is glenohumeral effusion.[5]
  - Correlate the clinical presentation with MRI findings due to the high incidence of labral pathology in asymptomatic throwers.[7]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **MRI** is considered appropriate if **ALL** of the following are **TRUE**[5]:

- ◆ The patient has **ANY** of the following:
  - There is an acute dislocation and glenohumeral effusion.
  - The patient has pain after a traumatic event that is poorly localized, and radiographs are negative.
  - The physical examination and history are consistent with a labral tear, a dislocation, or instability.
- ◆ A radiograph has already been performed.

Non-Indications

➔ **MRI** may not be appropriate if **ANY** of the following is **TRUE:**

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

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
73221	Magnetic resonance imaging (MRI) of joint of upper extremity without contrast material
73222	Magnetic resonance imaging (MRI) of joint of upper extremity with contrast material
73218	MRI scan of arm

Service: Magnetic Resonance Arthrogram

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:**
  - Imaging begins with radiography.
  - Magnetic resonance (MR) arthrography is preferred for evaluating the labrum and associated structures. Use MRI may be used if MR arthrography is contraindicated or if there is glenohumeral effusion.[5]
  - Correlate the clinical presentation with MRI findings due to the high incidence of labral pathology in asymptomatic throwers[7]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **MR arthrogram** is considered appropriate if **ALL** of the following are **TRUE**[5]:

- ◆ The patient has **ANY** of the following:
  - Acute dislocation and glenohumeral effusion.
  - Pain after a traumatic event that is poorly localized, and radiographs are negative.
  - The physical examination and history are consistent with a labral tear, a dislocation, or instability.
- ◆ A radiograph has already been performed.

Non-Indications

➔ **MR arthrograma** is not considered appropriate if **ANY** of the following is **TRUE:**

- ◆ 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

Service: Computed Tomography (CT) Arthrogram

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** A CT arthrogram is comparable to MR arthrogram for evaluating pathology due to instability but not rotator cuff pathology.[5] It is not appropriate for older patients with instability or dislocation.
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **CT arthrograms** are considered appropriate if **ALL** of the following are **TRUE**[5]**:**

- ◆ The patient has **ANY** of the following:
  - Acute dislocation and glenohumeral effusion.
  - Pain after a traumatic event that is poorly localized, and radiographs are negative.
  - The physical examination and history are consistent with a labral tear, a dislocation, or instability.
- ◆ A radiograph has already been performed.
- ◆ A MRI or MR arthrogram is contraindicated.

Non-Indications

➔ **CT arthrogram** is not considered appropriate if **ANY** of the following is **TRUE**[17]:

- ◆ Suspected skin or soft tissue infection at or near the injection site
- ◆ Septic arthritis
- ◆ Allergy to contrast material
- ◆ Anticoagulation
- ◆ Nephrogenic systemic fibrosis (NSF)

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition

73201	CT upper extremity with contrast
73200	CT scan of arm

Surgical Management

Service: Arthroscopic SLAP Repair

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:**
  - There is wide variability in the reported surgical approaches to SLAP repairs, with over 50% of papers not reporting indications.[11]
  - There is no consensus regarding SLAP repair criteria.
  - Controversy exists over the best treatment approach for SLAP tears, particularly type II.[9]
  - For younger patients and athletes, labral repair of type II is preferred.[9]
    - Older patients (above 40 years) may have worse outcomes after labral repair.[10]
    - SLAP repair may not provide more benefit vs. sham surgery in middle-aged patients.[18]
  - Worse outcomes were noted with combined type II repair + biceps tenodesis vs. either procedure in isolation.[18]
  - Strongly consider that the patient has tried intra-articular corticosteroid injection prior to surgery.
- **Exclusions:** None.

Medical Necessity Criteria

Indications [9,16]

➔ **Arthroscopic SLAP repair** is considered appropriate if **ALL** of the following are **TRUE:**
- ◆ In an active patient aged under 35-40 years, type II SLAP tear with residual pain
- ◆ Functional deficits despite conservative management of 6 weeks to 3 months
- ◆ Symmetric and full range of motion

Non-Indications

➔ **Arthroscopic SLAP repair** is not considered appropriate if **ANY** of the following is **TRUE:**
- ◆ Consider biceps tenodesis vs. SLAP in patients over 35-40 years.[9,15]

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
29807	Surgical arthroscopy of shoulder with repair of superior labral tear from anterior to posterior (SLAP) lesion
29999	Joint procedure using an endoscope
29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgical

Service: Capsulorrhaphy

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:**
  - Perform either an arthroscopic or open procedure for instability.
  - Consider a bone block procedure when there is 20% or more glenoid bone loss.
  - Overhead athletes may experience instability secondary to repetitive microtrauma.[20]
  - Capsular stretch and redundancy are also associated with dislocations.[20]
  - Capsular plication allows a return to sport and reduces re-dislocations.[20,21]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Capsulorrhaphy** is considered appropriate if **ANY** of the following is **TRUE**[20,21]:

- There is chronic instability and persistent pain or instability after completing physical therapy (6 weeks).
- It is a first-time dislocation in a young contact sport athlete.
- There is a bi-polar lesion (glenoid and humeral).

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
23450	Anterior capsulorrhaphy of joint of upper limb Magnuson anterior capsulorrhaphy of glenohumeral joint Putti-Platt anterior capsulorrhaphy of glenohumeral joint
23455	Anterior capsulorrhaphy of joint of upper limb with labral repair

	Bankart capsulorrhaphy of glenohumeral joint with labral repair
23462	Anterior capsulorrhaphy of glenohumeral joint with transfer of coracoid process
23465	Posterior capsulorrhaphy of glenohumeral joint
23466	Capsulorrhaphy of glenohumeral joint for multidirectional instability
29806	Surgical arthroscopy of shoulder with capsulorrhaphy
29805	Diagnostic examination of shoulder using an endoscope
S2300	Arthroscopy, shoulder, surgi
23460	Anterior capsulorrhaphy of joint of upper limb with bone block

Service: Bone Block Procedure

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:**
  - When bone loss approaches 20%, repairs limited to soft tissue have a high rate of recurrence.
  - Reconstruction compensates for bone loss in the setting of instability.[3,22]
  - Various techniques have been described.[23]
  - The procedure is commonly used in revisions.
  - Autograft or allograft are both used in this procedure.
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Bone block** is considered appropriate if **ANY** of the following is **TRUE:**

- ◆ There is recurrent anterior glenohumeral instability despite conservative treatment.[3,22-23]
- ◆ Failed Bankart stabilization[22-23]
- ◆ Young (less than 25 years), highly-active athletes with severe (more than 20%) bone loss

Non-Indications

None.

Site of Service Criteria

Outpatient

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
23465	Posterior capsulorrhaphy of glenohumeral joint with or without bone block
23460	Anterior capsulorrhaphy of joint of upper limb with bone block
23462	Anterior capsulorrhaphy of glenohumeral joint with transfer of coracoid process

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 for a consensus on the appropriate units, frequency, and duration.[11]
  - The protocol should be procedure-specific.[16]
  - Return to sport/throwing may take 2-6 months.[12]
- **Criteria for Subsequent Requests:**
  - Reinjury
  - Continued pain or functional deficits
- **Recommended Clinical Approach:**

  s/p labral repair [9,18]
  - SLAP repairs start physical therapy sooner than patients who had capsular tightening or a bone block procedure.
  - Immobilize with a sling for 4 weeks with passive ROM only.
  - Begin active ROM and isometric strengthening around 4-6 weeks.
  - Begin resisted strengthening at 12 weeks.

  s/p capsular tightening
  - Phased approach; increase PT requirements in later phases
  - Immobilize initially with a sling followed by increasing ROM and strengthening[24]

  s/p bone block
  - A similar approach to the above with protection then progression
  - Requires up to 4-6 months[25]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

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

◆ The patient underwent labral tear repair 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 Subsequent orthotic training of lower extremity, each 15 minutes Subsequent orthotic training of upper and lower extremities and trunk, each 15 minutes Subsequent orthotic training of upper extremities and trunk, each 15 minutes Subsequent orthotic training of upper extremities, each 15 minutes Subsequent orthotic training of upper extremity and trunk, each 15 minutes Subsequent orthotic training of upper extremity, each 15 minutes Subsequent prosthetic management and training of lower extremities and trunk, each 15 minutes Subsequent prosthetic management and training of lower extremity and trunk, each 15 minutes Subsequent prosthetic management and training of lower extremity, each 15 minutes Subsequent prosthetic management and training of upper and lower extremities and trunk, each 15 minutes Subsequent prosthetic management and training of upper extremities and trunk, each 15 minutes Subsequent prosthetic management and training of upper extremities, each 15 minutes Subsequent prosthetic management and training of upper

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

References

1. Varacallo M, Tapscott DC, Mair SD. Superior Labrum Anterior Posterior (SLAP) Lesions. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2020.
2. Cutts, S., Prempeh, M., & Drew, S. (2009). Anterior shoulder dislocation. Annals of the Royal College of Surgeons of England, 91(1), 2–7. https://doi.org/10.1308/003588409X359123.
3. Piasecki DP, Verma NN, Romeo AA, et al. Glenoid Bone Deficiency in Recurrent Anterior Shoulder Instability: Diagnosis and Management, *J Am Acad Orthop Surg*. 2009;17(8):482-493.
4. Seeger LL, Gold RH, Bassett LW. Shoulder instability: evaluation with MR imaging. *Radiology*. 1988;168(3):695-7.
5. Amini B, Beckmann NM, Beaman FD, et al. ACR Appropriateness Criteria® Shoulder Pain–Traumatic. *J Am Coll Radiol* 2018;15(5):S171-88.
6. Boutin RD, Marder RA. MR Imaging of SLAP Lesions. *Open Orthop J.* 2018;12:314-323. doi:10.2174/1874325001812010314
7. Lesniak BP, Baraga MG, Jose J, Smith MK, Cunningham S, Kaplan LD. Glenohumeral Findings on Magnetic Resonance Imaging Correlate With Innings Pitched in Asymptomatic Pitchers. *Am J Sports Med*. 2013;41(9):2022–2027. doi: 10.1177/0363546513491093.
8. Rowan KR, Andrews G, Spielmann A, Leith J. MR shoulder arthrography in patients younger than 40 years of age: frequency of rotator cuff tear versus labroligamentous pathology. *Australasian radiol*. 2007;51(3):257-9.
9. Johannsen AM, Costouros JG. A Treatment-Based Algorithm for the Management of Type-II SLAP Tears. *Open Orthop J*. 2018;12:282-287. doi:10.2174/1874325001812010282
10. Erickson J, Lavery K, Monica J, Gatt C, Dhawan A. Surgical treatment of symptomatic superior labrum anterior-posterior tears in patients older than 40 years: A systematic review. *Am J Sports Med*. 2015; 43:1274–1282.
11. Kibler WB, Sciascia A. Current Practice for the Surgical Treatment of SLAP Lesions: A Systematic Review. *Arthroscopy*. 2016;32(4):669-683. doi:10.1016/j.arthro.2015.08.041
12. Ireland ML, Hatzenbuehler JR. Superior labrum anterior posterior (SLAP) tears. UpToDate. October 25, 2018. Accessed May 28, 2020
13. American Academy of Orthopedic Surgeons. Orthoinfo: Slap Tears. https://orthoinfo.aaos.org/en/diseases--conditions/slap-tears/. Accessed on June 1, 2020.
14. Hippensteel KJ, Brophy R, Smith MV, Wright RW. Comprehensive Review of Provocative and Instability Physical Examination Tests of the Shoulder. *J Am Acad Orthop Surg.* 2019;27(11):395-404. doi: 10.5435/JAAOS-D-17-00637
15. Sullivan S, Hutchinson ID, Curry EJ, Marinko L, Li X. Surgical management of type II superior labrum anterior posterior (SLAP) lesions: a review of

outcomes and prognostic indicators. *Phys Sportsmed*. 2019;47(4):375-86.
16. Gelber JD, Soloff L, Schickendantz MS. The Thrower's Shoulder, *J Am Acad Orthop Surg.* 2018;26(6):204-213. doi: 10.5435/JAAOS-D-15-0
17. Hodler J. Technical errors in MR arthrography. *Skeletal radiol.* 2008;37(1):9-18.
18. Schrøder CP, Skare Ø, Reikerås O, Mowinckel P, Brox JI. Sham surgery versus labral repair or biceps tenodesis for type II SLAP lesions of the shoulder: a three-armed randomised clinical trial. *Br J Sports Med*. 2017;51(24):1759-66.
19. Chalmers PN, Monson B, Frank RM, et al. Combined SLAP repair and biceps tenodesis for superior labral anterior–posterior tears. *Knee Surg Sports Traumatol Arthrosc*. 2016;24(12):3870-6.
20. Jones KJ, Kahlenberg CA, Dodson CC, et al. Arthroscopic Capsular Plication for Microtraumatic Anterior Shoulder Instability in Overhead Athletes. Am J Sports Med. 2012;40(9): 2009–2014. doi: 10.1177/0363546512453299.
21. Levy DM, Gvozdyev BV, Schulz BM, Boselli KJ, Ahmad CS. Arthroscopic anterior shoulder stabilization with percutaneous assistance and posteroinferior capsular plication. *Am J Orthop.* 2014 Aug.
22. Venkatachalam S, Storey P, Macinnes SJ, Ali A, Potter D. The Sheffield bone block procedure: a new operation for the treatment of glenoid bone loss in patients with anterior traumatic shoulder instability. Shoulder Elbow. 2016;8(2):106-110. doi:10.1177/1758573215622614
23. Kany J, Codanda B, Croutzet P, Guinand R. Arthroscopic congruent-arc shoulder bone-block for severe glenoid bone defect: Preliminary report. Orthop Traumatol Surg Res. 2017;103(3):441-446. doi:10.1016/j.otsr.2016.11.023
24. University of Wisconsin Health Sports Medicine. Rehabilitation Guidelines for Arthroscopic Capsular Shift. Accessed May 28, 2020.
25. Fedorka CJ, Mulcahey MK. Recurrent anterior shoulder instability: a review of the Latarjet procedure and its postoperative rehabilitation. *Phys Sportsmed*. 2015;43(1):73-79. doi:10.1080/00913847.2015.1005543

Clinical Guideline Revision History/Information

Original Date: June 12, 2020	
Review History	
September 16, 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