



## **Knee Ligament Injuries (M23 & S83)**

*Clinical Guidelines for Medical Necessity Review*

**Version:** 4.0

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# Important Notices

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## Guideline Information:

**Specialty Area:** Diseases & Disorders of the Musculoskeletal System (M00-M99)

**CarePath Group:** Knee

**CarePath Name:** Knee Ligament Injuries

**Type:**  Adult (18+ yo) |  Pediatric (0-17yo)

**Physician Author:** Mandy Armitage, MD (Sports Medicine)

**Peer reviewed by:** Brian Covino, MD (Orthopedic Surgeon, Knee/Hip & Total Joint Replacement),  
Andrea Young, MD (Orthopedic Surgeon), Traci Granston, MD (Orthopedic Surgeon)

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## **Table of Contents**

<b>Important Notices</b>	<b>2</b>
Care Path Clinical Discussion	6
Key Information	6
Definitions	7
<b>CarePath Diagnostic Criteria</b>	<b>9</b>
Disease Classification	9
ICD-10 Codes Associated with Classification	9
Presentation and Etiology	11
Causes and Risk Factors	11
Clinical Presentation	12
Typical Physical Exam Findings	12
Typical Diagnostic Findings	14
<b>Care Path Services &amp; Medical Necessity Criteria</b>	<b>15</b>
Conservative Therapy	15
Service: Physical Therapy	15
General Guidelines	15
Medical Necessity Criteria	15
Indications	15
Non-Indications	17
Site of Service Criteria	18
Procedure Codes (HCPCS/CPT)	18
Service: Orthotics	25
General Guidelines	25
Medical Necessity Criteria	25
Indications	25
Non-Indications	27
Site of Service Criteria	27
Procedure Codes (HCPCS/CPT)	27
Advanced Imaging	29
Service: Magnetic Resonance Imaging (MRI) without Contrast	29
General Guidelines	29
Medical Necessity Criteria	29
Indications	29
Non-Indications	31
Site of Service Criteria	31

Procedure Codes (HCPCS/CPT)	32
Service: Ultrasound	33
General Guidelines	33
Medical Necessity Criteria	33
Indications	33
Non-Indications	34
Procedure Codes (HCPCS/CPT)	34
Surgical Management	35
Service: Anterior Cruciate Ligament (ACL) Repair/Reconstruction	35
General Guidelines	35
Medical Necessity Criteria	35
Indications	35
Non-Indications	35
Site of Service Criteria	35
Procedure Codes (HCPCS/CPT)	36
Service: Medial Collateral Ligament (MCL) Repair/Reconstruction	37
General Guidelines	37
Medical Necessity Criteria	37
Indications	37
Non-Indications	37
Site of Service Criteria	37
Procedure Codes (HCPCS/CPT)	37
Service: Lateral Collateral Ligament (LCL) Repair / Reconstruction	38
General Guidelines	38
Medical Necessity Criteria	38
Indications	38
Non-Indications	38
Site of Service Criteria	38
Procedure Codes (HCPCS/CPT)	38
Service: Posterior Cruciate Ligament (PCL) Repair / Reconstruction	39
General Guidelines	39
Medical Necessity Criteria	39
Indications	39
Non-Indications	39
Site of Service Criteria	39
Procedure Codes (HCPCS/CPT)	39
Service: Posterolateral Corner (PLC) Repair / Reconstruction	41

General Guidelines	41
Medical Necessity Criteria	41
Indications	41
Non-Indications	41
Site of Service Criteria	41
Procedure Codes (HCPCS/CPT)	41
Surgical Risk Factors	42
Postoperative Care	46
Service: Physical Therapy	46
General Guidelines	46
Medical Necessity Criteria	46
Indications	46
Non-Indications	47
Site of Service Criteria	47
Procedure Codes (HCPCS/CPT)	47
Service: Orthotics	54
General Guidelines	54
Medical Necessity Criteria	54
Indications	54
Non-Indications	54
Site of Service Criteria	54
Procedure Codes (HCPCS/CPT)	54
<b>Long-Term Management</b>	<b>56</b>
Service: Orthotics	56
General Guidelines	56
Medical Necessity Criteria	56
Indications	56
Non-Indications	56
Site of Service Criteria	56
Procedure Codes (HCPCS/CPT)	56
<b>References</b>	<b>58</b>
<b>Clinical Guideline Revision History/Information</b>	<b>61</b>

## **Care Path Clinical Discussion**

Ligamentous injuries of the knee are frequently related to athletic activities but can also result from trauma. Injury to the anterior cruciate ligament (ACL) is the most common.<sup>1</sup> An estimated 3% of amateur athletes sustain an ACL injury each year. However, this number is even higher for female athletes. People aged 15 to 40 years are most commonly affected.<sup>2</sup> Injuries to the medial collateral ligament (MCL), lateral collateral ligament (LCL), and posterior cruciate ligament (PCL) can also occur in the athletic population but are less common than ACL injuries. Ligamentous knee injuries can increase the risk for subsequent injuries and long-term effects such as osteoarthritis,<sup>1</sup> so timely assessment and management are important. Posterolateral corner (PLC) injuries may occur as an isolated injury but are most often combined with a cruciate ligament injury. Undiagnosed PLC injury can lead to the failure of an ACL reconstruction.

Radiography should always be the first step in imaging. Combined with the history and physical, it can help determine appropriate next steps in the care plan. Magnetic resonance imaging (MRI) is the most common form of advanced imaging for assessing ligamentous injuries.<sup>3,4</sup> Diagnostic ultrasound may be used to evaluate effusions and extra-articular ligaments, but it cannot diagnose intra-articular abnormalities.<sup>3</sup> Conservative management (including physical therapy) may be appropriate for isolated, low- or mid-grade MCL, LCL, and PCL injuries, or the patient for whom ACL reconstruction is not appropriate.<sup>4,5</sup> The majority of ACL ruptures require surgical intervention.<sup>4</sup> Management of isolated ligament injury is vastly different from that of knee injuries that involve multiple structures, so accurate diagnosis is critical to treatment decision-making.

*The information contained herein gives a general overview of the pathway of ligamentous knee injuries, beginning with initial presentation, recommended assessments, and treatment options as supported by the medical literature and existing guidelines. 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**

- Ligamentous injuries frequently occur in active patients. The most common knee ligament injury is to the ACL. MCL, LCL, and PCL injuries are less common. PLC injuries often occur in combination with a cruciate ligament injury. Depending on the setting of the injury, the patient may present to primary care, urgent or emergent care, or orthopedics/musculoskeletal care.

- The goal with advanced assessment and subsequent treatment is to restore the patient to baseline or pre-injury activity level. Consider the patient's amenability to surgical intervention (if indicated) when making clinical decisions.
- Clinical diagnosis of a ligamentous injury may be sufficient for isolated MCL or LCL injuries. Advanced imaging (usually MRI) may be required to confirm ACL, PCL, and PLC injuries or to rule out other concomitant intra-articular abnormalities. Advanced imaging may also be warranted for surgical planning. Advanced imaging should not be performed in the absence of radiographs.
- When the diagnosis or appropriate treatment plan is unclear, non-specialists should refer early before ordering advanced imaging.
- Depending on the specific injury, conservative management may be appropriate. Treatment plans are diagnosis-specific.

## **Definitions**

There are four major ligaments that provide stability to the knee joint:

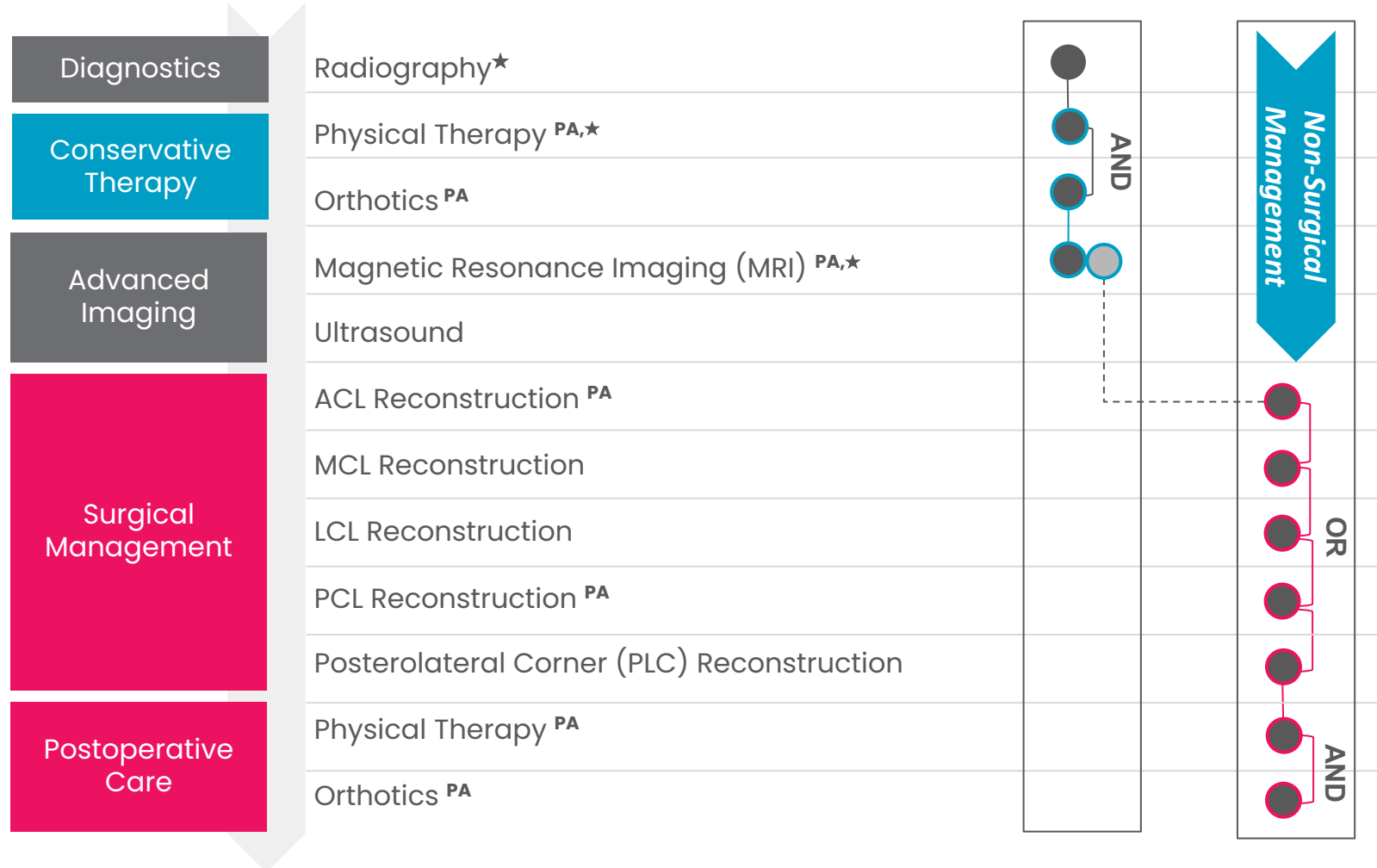
- The **MCL** (medial collateral ligament) and the **LCL** (lateral collateral ligament) provide stability in sideways movement (medial and lateral).
- The **ACL** (anterior cruciate ligament) and **PCL** (posterior cruciate ligament) provide stability in forward and backward movement of the knee (anterior and posterior). Disruption of the ligaments can lead to instability of the knee joint.
- The **PLC** (posterolateral corner) includes the biceps tendon, iliotibial band, popliteus tendon, popliteofibular ligament, arcuate ligament, and the LCL. Disruption of the PLC can lead to posterolateral knee instability.

# Knee Ligament Injuries

## 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.

**Non-Surgical Management**      **Surgical Management**



### Key

<sup>PA</sup> = 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

Knee Ligament Injury

### ICD-10 Codes Associated with Classification

ICD-10 Code	Code Description/Definition
M23.50	Chronic instability of knee, unspecified knee
M23.51	Chronic instability of knee, right knee
M23.52	Chronic instability of knee, left knee
M23.6	Other spontaneous disruption of ligaments of knee
M23.601	Other spontaneous disruption of unspecified ligament of right knee
M23.602	Other spontaneous disruption of unspecified ligament of left knee
M23.609	Other spontaneous disruption of unspecified ligament of unspecified knee
M23.61	Other spontaneous disruption of anterior cruciate ligament of knee
M23.611	Other spontaneous disruption of anterior cruciate ligament of right knee
M23.612	Other spontaneous disruption of anterior cruciate ligament of left knee
M23.619	Other spontaneous disruption of anterior cruciate ligament of unspecified knee
M23.62	Other spontaneous disruption of posterior cruciate ligament of knee
M23.621	Other spontaneous disruption of posterior cruciate ligament of right knee
M23.622	Other spontaneous disruption of posterior cruciate ligament of left knee

M23.629	Other spontaneous disruption of posterior cruciate ligament of unspecified knee
M23.63	Other spontaneous disruption of medial collateral ligament of knee
M23.631	Other spontaneous disruption of medial collateral ligament of right knee
M23.632	Other spontaneous disruption of medial collateral ligament of left knee
M23.639	Other spontaneous disruption of medial collateral ligament of unspecified knee
M23.64	Other spontaneous disruption of lateral collateral ligament of knee
M23.641	Other spontaneous disruption of lateral collateral ligament of right knee
M23.642	Other spontaneous disruption of lateral collateral ligament of left knee
M23.649	Other spontaneous disruption of lateral collateral ligament of unspecified knee
M23.67	Other spontaneous disruption of capsular ligament of knee
M23.671	Other spontaneous disruption of capsular ligament of right knee
M23.672	Other spontaneous disruption of capsular ligament of left knee
M23.679	Other spontaneous disruption of capsular ligament of unspecified knee
M24.20	Disorder of ligament, unspecified site
M25.362	Other instability, left knee
M25.561	Pain in right knee
M25.562	Pain in left knee
M25.569	Pain in unspecified knee
M79.661	Pain in right lower leg
M79.662	Pain in left lower leg

M79.669	Pain in unspecified lower leg
S83.41	Sprain of medial collateral ligament of knee
S83.411	Sprain of medial collateral ligament of right knee
S83.412	Sprain of medial collateral ligament of left knee
S83.419	Sprain of medial collateral ligament of unspecified knee
S83.42	Sprain of lateral collateral ligament of knee
S83.421	Sprain of lateral collateral ligament of right knee
S83.422	Sprain of lateral collateral ligament of left knee
S83.429	Sprain of lateral collateral ligament of unspecified knee
S83.511A	Sprain of anterior cruciate ligament of right knee, initial encounter
S83.511D	Sprain of anterior cruciate ligament of right knee, subsequent encounter
S83.512A	Sprain of anterior cruciate ligament of left knee, initial encounter
S83.512D	Sprain of anterior cruciate ligament of left knee, subsequent encounter
S83.8	Sprain of other specified parts of knee

## **Presentation and Etiology**

### ***Causes and Risk Factors***

ACL injuries can occur as a result of contact-related athletic injury, but more commonly occur as non-contact athletic injuries. Common mechanisms involve cutting, pivoting, and landing after jumping. ACL injuries can also occur in other trauma, such as a fall off a ladder or on stairs. Risk factors include having a previous ACL injury, female sex, biomechanical abnormalities, and participation in sports such as basketball, soccer, football, downhill skiing, lacrosse, or tennis.<sup>1,2</sup>

MCL injuries can occur via direct valgus stress from a blow to the lateral aspect of the knee or indirect stress through abduction or rotation of the lower leg (e.g., catching on a surface when trying to change direction). Contact sports and skiing confer higher risk.<sup>6,7</sup>

LCL injuries result from varus stress to the knee, usually directly or forced varus hyperextension. Isolated LCL injuries are rare and commonly occur in combination with injury to another posterolateral corner (PLC) structure.<sup>8</sup> Risk factors for LCL injury are difficult to elicit, but tennis and gymnastics may confer higher risk.<sup>2,9</sup>

PCL injuries commonly occur via direct posterior force on the proximal tibia or knee hyperextension. They commonly co-occur with other ligament injuries.<sup>8</sup> The PCL is rarely injured in isolation; it is the least common ligament injury in sports.<sup>9</sup> As such, risk factors are difficult to identify.

PLC injuries most commonly occur due to a hyperextension varus injury, often from a direct blow to the anteromedial tibia. Generally, these result from athletic injuries, motor vehicle accidents, or falls. PLC injuries commonly co-occur with cruciate ligament injuries.

### ***Clinical Presentation***

The following are common presentations for knee ligament injuries:

#### **ACL injuries:**

- Knee pain
- Felt or heard a popping sensation felt or heard

- Swelling
- Feeling of instability
- Inability to bear weight or return to play
- +/- Mechanical symptoms (locking, catching)

MCL injuries:

- Medial knee pain
- Swelling
- Weight-bearing apprehension

LCL injuries:

- Lateral or posterolateral pain
- Swelling
- Feeling of instability
- Weight-bearing apprehension

PCL injuries:

- Knee pain or vague discomfort
- Swelling
- Feeling of instability
- Difficulty using stairs or decelerating (if a chronic injury)

PLC injuries:

- Posterolateral knee pain
- Feeling of instability
- Difficulty with stair climbing and pivoting
- May be associated with peroneal nerve palsy

**Typical Physical Exam Findings**

The following are common presentations for knee ligament injuries:

ACL injuries<sup>5,10</sup>:

- Effusion<sup>11</sup>
- Incomplete extension or guarding
- Antalgic gait
- Joint line tenderness
- Decreased range of motion (ROM) when compared with the contralateral knee
- Increased laxity when compared with the contralateral knee
- Positive Lachman's test<sup>12-14</sup>
  - Increased anterior translation of the proximal tibia with distal femur stabilized and knee flexed to 30°
- Positive anterior drawer test<sup>12-14</sup>

- Anterior translation of tibia in relation to the femur with the knee flexed to 90°
- Positive pivot-shift test<sup>12-14</sup>
  - Examiner feels ‘clunk’ while passively flexing knee with valgus force and internal rotation of the tibia

#### MCL injuries:

- Localized soft tissue swelling
- Tenderness over the MCL
  - May present as medial joint line tenderness
- Painful active ROM
- Valgus laxity at 0° or 30° flexion when compared with the contralateral knee

#### LCL injuries:

- Varus thrust or another antalgic gait
- Tenderness over the LCL or generally over the lateral knee
- Localized soft tissue swelling
- Painful active ROM
- Varus laxity at 0° or 30° knee flexion when compared with the contralateral knee

#### PCL injuries<sup>5</sup>:

- Effusion<sup>15-17</sup>
- Antalgic gait<sup>18</sup>
- Tenderness in the posterior fossa
- Decreased ROM when compared with the contralateral knee
- Positive posterior sag sign
  - Absent or posteriorly-directed tibial step-off in relation to the distal femur with the patient supine and hip and knee flexed to 90° (as compared with the contralateral knee)
- Positive posterior drawer<sup>15,17</sup>
  - Posterior translation of the tibia in relation to the femur with the knee flexed to 90°
- Quadriceps active sign
  - Starting with the knee flexed to 90°, there is an anterior translation of the tibia with active knee extension

#### PLC injuries:

- Posterolateral drawer test
  - Performed with the hip flexed 45°, knee flexed 80°, and foot is externally rotated 15°

- Apply a combined posterior drawer and external rotation force to the knee to assess for increased posterolateral translation (the lateral tibia externally rotates relative to the lateral femoral condyle)
- Posterolateral tenderness
- Hyperextension with ambulation
- Dial Test:
  - 10° external rotation asymmetry at 30° only consistent with isolated PLC injury versus a 10° external rotation asymmetry at 30° and 90° consistent with PLC and PCL injury.

### ***Typical Diagnostic Findings***

Radiographic findings:

- Normal
- Effusion
- Avulsion fracture
- Posterior sag on a lateral radiograph (PCL)

# Care Path Services & Medical Necessity Criteria

## Conservative Therapy

**Service: Physical Therapy**

### General Guidelines

- **Units, Frequency, & Duration:** There is no evidence to support an exact number of units, timing, or frequency; common protocols follow:
  - Up to 3 months prior to ACL reconstruction<sup>10</sup>
  - 12 weeks for nonoperative management of ACL injury<sup>4</sup>
  - Up to 12 weeks for MCL, 12 weeks for LCL injuries
  - Up to 6 months for PCL<sup>18</sup>
    - There is no evidence to support timing/duration, but generally, PCL requires more rehabilitation time than ACL<sup>18</sup>
- **Criteria for Subsequent Requests:** Reinjury or physical therapy goals have not been achieved.
- **Recommended Clinical Approach:** Functional, progressive approach to knee rehabilitation is common. This includes restoring active range of motion; improving strength, proprioception, agility, and general fitness; and determining appropriateness for return to play.
  - ACL injury<sup>4</sup>:
    - Patients with lower activity levels or less laxity may tolerate an ACL-deficient knee and benefit from physical therapy to regain strength and stability in lieu of surgery
  - Isolated MCL any grade or grade I-II LCL<sup>19</sup>:
    - Rehabilitation is required for optimal outcomes.
- **Exclusions:** Injuries with functional instability or suspected ACL, posterolateral corner, meniscus, or chondral/osteochondral injury should be referred to orthopedics prior to initiating physical therapy.

### Medical Necessity Criteria

#### Indications

- **Physical therapy** is considered appropriate for **ACL injury** if **ALL** of the following are **TRUE**:
- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
    - Knee pain
    - Felt or heard a popping sensation



- Swelling
- Feeling of instability
- Inability to bear weight or return to play
- With or without mechanical symptoms (locking, catching)
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Effusion
  - Incomplete extension or guarding
  - Antalgic gait
  - Joint line tenderness
  - Decreased ROM when compared with the contralateral knee
  - Increased laxity when compared with the contralateral knee
  - Positive Lachman’s test
    - Increased anterior translation of the proximal tibia with distal femur stabilized and knee flexed to 30°
  - Positive anterior drawer test
    - Anterior translation of tibia in relation to the femur with the knee flexed to 90°
  - Positive pivot-shift test
    - The examiner feels a “clunk” while passively flexing the knee with valgus force and an internal rotation of the tibia

→ **Physical therapy** is considered appropriate for **MCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Medial knee pain
  - Swelling
  - Weight-bearing apprehension
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Localized soft tissue swelling
  - Tenderness over the MCL
  - Painful active ROM
  - Valgus laxity at 0° or 30° flexion when compared with the contralateral knee

→ **Physical therapy** is considered appropriate for **LCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Lateral or posterolateral pain

- Swelling
  - Feeling of instability
  - Weight-bearing apprehension
  - ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
    - Varus thrust or another antalgic gait
    - Tenderness over the LCL or generally over the lateral knee
    - Localized soft tissue swelling
    - Painful active ROM
    - Varus laxity at 0° or 30° knee flexion when compared with the contralateral knee
    - Positive posterolateral drawer test
- **Physical therapy** is considered appropriate for **PCL injury** if **ALL** of the following are **TRUE**:
- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
    - Knee pain or vague discomfort
    - Pain localized to posterior knee
    - Swelling
    - Feeling of instability
    - Difficulty using stairs or decelerating (if chronic)
  - ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
    - Effusion
    - Antalgic gait
    - Tenderness in the posterior fossa
    - Decreased ROM when compared with the contralateral knee
    - Positive posterior sag sign
      - Absent or posteriorly-directed tibial step-off in relation to the distal femur with the patient supine and the hip and knee flexed to 90° (as compared with the contralateral knee)
    - Positive posterior drawer
      - Posterior translation of tibia in relation to the femur with the knee flexed to 90°
    - Quadriceps active sign
      - Starting with the knee flexed to 90°, note an anterior translation of tibia with active knee extension

## Non-Indications

None.

## **Site of Service Criteria**

Outpatient

### **Procedure Codes (HCPCS/CPT)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
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

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	<p>each 15 minutes</p> <p>Subsequent orthotic training of lower extremities, each 15 minutes</p> <p>Subsequent orthotic training of lower extremity and trunk, each 15 minutes</p> <p>Subsequent prosthetic management and training of lower extremities, each 15 minutes</p> <p>Subsequent prosthetic management of lower extremities, each 15 minutes</p> <p>Subsequent prosthetic training of lower extremities and trunk, each 15 minutes</p> <p>Subsequent prosthetic training of lower extremities, each 15 minutes</p> <p>Subsequent prosthetic training of lower extremity and trunk, each 15 minutes</p>
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



## Service: Orthotics

### General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Knee braces can support an anterior cruciate ligament tear or help to prevent one from occurring.<sup>20-23</sup> Patients can wear functional braces during the day without interfering with daily activities. The braces can stabilize the knee and decrease weight on the knee joints, protecting ligaments from injury.<sup>20,22-25</sup>
- **Exclusions:** None.

### Medical Necessity Criteria

#### Indications

- **Orthotics** are considered appropriate for **ACL injury** if **ALL** of the following are **TRUE**:
- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
    - Knee pain
    - Felt or heard a popping sensation
    - Swelling
    - Feeling of instability
    - Inability to bear weight or return to play
    - With or without mechanical symptoms (locking, catching)
  - ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
    - Effusion
    - Incomplete extension or guarding
    - Antalgic gait
    - Joint line tenderness
    - Decreased ROM when compared with the contralateral knee
    - Increased laxity when compared with the contralateral knee
    - Positive Lachman's test
      - Increased anterior translation of the proximal tibia with distal femur stabilized and knee flexed to 30°
    - Positive anterior drawer test

- Anterior translation of tibia in relation to the femur with the knee flexed to 90°
- Positive pivot-shift test
  - The examiner feels a “clunk” while passively flexing the knee with valgus force and an internal rotation of the tibia
  - Examiner feels ‘clunk’ while passively flexing knee with valgus force and internal rotation of the tibia

→ **Orthotics** are considered appropriate for **MCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Medial knee pain
  - Swelling
  - Weight-bearing apprehension
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Localized soft tissue swelling
  - Tenderness over the MCL
    - May present as medial joint line tenderness
  - Painful active ROM
  - Valgus laxity at 0° or 30° flexion when compared with the contralateral knee

→ **Orthotics** are considered appropriate for **LCL injury** IF **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Lateral or posterolateral pain
  - Swelling
  - Feeling of instability
  - Weight-bearing apprehension
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Varus thrust or another antalgic gait
  - Tenderness over the LCL or generally over the lateral knee
  - Localized soft tissue swelling
  - Painful active ROM
  - Varus laxity at 0° or 30° knee flexion when compared with the contralateral knee
  - Positive posterolateral drawer test

→ **Orthotics** are considered appropriate for **PCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:

- Knee pain or vague discomfort
- Pain localized to the posterior knee
- Swelling
- Feeling of instability
- Difficulty using stairs or decelerating (if chronic)
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Effusion
  - Antalgic gait
  - Tenderness in the posterior fossa
  - Decreased ROM when compared with the contralateral knee
  - Positive posterior sag sign
    - Absent or posteriorly-directed tibial step-off in relation to the distal femur with the patient supine and the hip and knee flexed to 90° (as compared with the contralateral knee)
  - Positive posterior drawer
    - Posterior translation of tibia in relation to the femur with the knee flexed to 90°
  - Quadriceps active sign
    - Starting with the knee flexed to 90°, there is an anterior translation of the tibia with active knee extension

**Non-Indications**

None.

**Site of Service Criteria**

Outpatient

**Procedure Codes (HCPCS/CPT)**

HCPCS Code	Code Description/Definition
29530	Strapping of knee
L1834	Knee orthosis, without knee joint, rigid, custom fabricated
L1840	Knee orthosis, derotation, medial-lateral, anterior cruciate ligament, custom fabricated
L1844	Knee orthosis, single upright, thigh and calf, with adjustable flexion and extension joint (unicentric or polycentric),

	medial-lateral and rotation control, with or without varus/valgus adjustment, custom fabricated
L1846	Knee orthosis (KO), double upright, thigh and calf, with adjustable flexion and extension joint (unicentric or polycentric), medial-lateral and rotation control, with or without varus/valgus adjustment, custom fabricated
L2320	Addition to lower extremity, non-molded lacer, for custom fabricated orthosis only
L2330	Addition to lower extremity, lacer molded to patient model, for custom fabricated orthosis only
L2755	Addition to lower extremity orthosis, high strength, lightweight material, all hybrid lamination/prepreg composite, per segment, for custom fabricated orthosis only
L2800	Addition to lower extremity orthosis, knee control, knee cap, medial or lateral pull, for use with custom fabricated orthosis only
L2861	Addition to lower extremity joint, knee or ankle, concentric adjustable torsion style mechanism for custom fabricated orthotics only
L1852	Knee Osteoarthritis, double upright prefab ots
L3913	Hfo w/o joints cf

## Advanced Imaging

### Service: Magnetic Resonance Imaging (MRI) without Contrast

#### General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:**
  - With a history of trauma/injury, MRI is recommended to confirm a suspected injury to<sup>34</sup>:
    - Cruciate ligament(s)
    - Meniscus
    - Articular cartilage
    - Bone
  - MRI is indicated if a Segond (avulsion fracture of the proximal, anterolateral tibia) or another avulsion fracture is noted on a plain film.<sup>10</sup>
  - MRI is indicated for a grade 3 MCL injury (more than 10° laxity with valgus stress) to assess for intra-articular pathology.<sup>26</sup>
  - MRI is indicated for grade 3 LCL injury (more than 10° laxity with varus stress) to assess for intra-articular or PLC pathology.
- **Exclusions:** None.

#### Medical Necessity Criteria

##### Indications

- **MRI** is considered appropriate for **ACL injury** if **ALL** of the following are **TRUE**<sup>27</sup>:
- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
    - Knee pain
    - Felt or heard a popping sensation
    - Swelling
    - Feeling of instability
    - Inability to bear weight or return to play
    - Mechanical symptoms (locking, catching)
  - ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
    - Effusion
    - Incomplete extension or guarding
    - Antalgic gait
    - Joint line tenderness

- Decreased ROM when compared with the contralateral knee
- Increased laxity when compared with the contralateral knee
- Positive Lachman's test
  - Increased anterior translation of the proximal tibia with the distal femur stabilized and the knee flexed to 30°
- Positive anterior drawer test
  - Anterior translation of tibia in relation to the femur with the knee flexed to 90°
- Positive pivot-shift test
  - The examiner feels a 'clunk' while passively flexing the knee with valgus force and an internal rotation of the tibia

→ **MRI** is considered appropriate for **MCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Medial knee pain
  - Swelling
  - Weight-bearing apprehension
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Localized soft tissue swelling
  - Tenderness over the MCL
    - May present as medial joint line tenderness
  - Painful active ROM
  - Valgus laxity at 0° or 30° flexion when compared with the contralateral knee

→ **MRI** is considered appropriate for **LCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Lateral or posterolateral pain
  - Swelling
  - Feeling of instability
  - Weight-bearing apprehension
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Varus thrust or another antalgic gait
  - Tenderness over the LCL or generally over lateral knee
  - Localized soft tissue swelling

- Painful active ROM
- Varus laxity at 0° or 30° knee flexion when compared with the contralateral knee
- Positive posterolateral drawer test

→ **MRI** is considered appropriate for **PCL injury** if **ALL** of the following are **TRUE**:

- ◆ The patient has **ANY** positive findings from the [presentation](#) list:
  - Knee pain or vague discomfort
  - Pain localized to posterior knee
  - Swelling
  - Feeling of instability
  - Difficulty using stairs or decelerating (if chronic)
- ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
  - Effusion
  - Antalgic gait
  - Tenderness in the posterior fossa
  - Decreased ROM when compared with the contralateral knee
  - Positive posterior sag sign
    - Absent or posteriorly-directed tibial step-off in relation to the distal femur with the patient supine and the hip and knee flexed to 90° (as compared with the contralateral knee)
  - Positive posterior drawer
    - Posterior translation of tibia in relation to the femur with the knee flexed to 90°
  - Quadriceps active sign
    - Starting with the knee flexed to 90°, there is an anterior translation of the tibia with active knee extension

### **Non-Indications**

- **MRI** may not be medically 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)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
73721	MRI of lower extremity
73722	MRI of lower extremity with contrast
73723	MRI scan of leg joint before and after contrast



## **Service: Ultrasound**

### **General Guidelines**

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Diagnostic ultrasound may be a useful adjunct when evaluating for<sup>3</sup>:
  - Effusion
  - Extra-articular (e.g., MCL, LCL) injury
  - Symptoms consistent with dynamic abnormalities
- **Exclusions:** Not appropriate for evaluating intra-articular structures.<sup>3</sup>

### **Medical Necessity Criteria**

#### **Indications**

- **Ultrasound** is considered appropriate for **LCL or MCL injury** if **ALL** of the following are **TRUE**<sup>28</sup>:
- ◆ The patient requires further evaluation for **ANY** of the following:
    - Effusion
    - Extra-articular injury (MCL, LCL)
    - Dynamic abnormalities
  - ◆ The patient has **ANY** positive findings from the [presentation](#) list:
    - Lateral or posterolateral pain
    - Swelling
    - Feeling of instability
    - Weight-bearing apprehension
    - Medial knee pain
    - No swelling (if it is an isolated MCL injury)
  - ◆ The patient has **ANY** positive findings from the [exam findings](#) list:
    - Varus thrust or another antalgic gait
    - Tenderness over the LCL or generally over the lateral knee
    - Localized soft tissue swelling
    - Painful active ROM
    - Varus laxity at 0° or 30° knee flexion when compared with the contralateral knee
    - Positive posterolateral drawer test
    - Localized soft tissue swelling
    - Tenderness over the MCL
      - May present as medial joint line tenderness
    - Painful active ROM

- Valgus laxity at 0° or 30° flexion when compared with the contralateral knee

### Non-Indications

None.

→ **Ultrasound** may not be considered appropriate for **LCL or MCL injury** if **ANY** of the following is **TRUE**:

- ◆ The injury is an acute knee injury with a large joint effusion or hemarthrosis

### 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

# Surgical Management

## **Service: Anterior Cruciate Ligament (ACL) Repair/Reconstruction**

### General Guidelines

- **Units, Frequency, & Duration**<sup>4</sup>: Allow for prehabilitation before surgery.
- **Criteria for Subsequent Requests:**
  - Surgical intervention may be considered for patients who initially decline ACL reconstruction and experience recurrent instability.<sup>4</sup>
  - Revision reconstruction is recommended for the failure of a prior reconstruction.
- **Recommended Clinical Approach:**<sup>4</sup>
  - ACL reconstruction is generally recommended for:
    - Active young adults (age should not be the determining factor for appropriateness)
    - Patients with significant knee instability
    - Patients with a concomitant meniscal injury that would benefit from repair
  - In the event of combined ACL and MCL injuries, nonoperative management of the MCL is recommended in most cases.<sup>4,29</sup>
- **Exclusions:** None.

### Medical Necessity Criteria

#### Indications

- **ACL repair/reconstruction** is considered appropriate if **ALL** of the following is **TRUE**:
- ◆ **ANY** of the following are **TRUE**:
    - Pain and instability limit activities of daily living.
    - An ACL tear is confirmed in an active patient.
  - ◆ Advanced imaging shows **ANY** of the following<sup>30</sup>:
    - Presence of an ACL tear
    - No evidence of advanced arthritis
    - Meniscal tear which would benefit from repair in the presence of an ACL tear

#### Non-Indications

None.

### Site of Service Criteria

Outpatient

### Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
27407	Primary repair of torn cruciate ligament of knee
29888	Anterior cruciate ligament reconstruction
29850	Treatment of knee joint fractures with assistance of an endoscope

## **Service: Medial Collateral Ligament (MCL) Repair/Reconstruction**

### **General Guidelines**

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** The majority of isolated MCL injuries may be treated non-surgically. Surgery may be used to treat: injuries with a bony avulsion, a grade 3 injury, particularly distal avulsion, or in combination with an ACL or multi-ligamentous injury.
- **Exclusions:** None.

### **Medical Necessity Criteria**

#### **Indications**

→ **MCL repair/reconstruction** is considered appropriate if **ALL** of the following is **TRUE**:

◆ **ANY** of the following are **TRUE**:

- Acute instability in the setting of a multi-ligamentous injury
- Displaced distal avulsions with a Stener lesion
- Entrapment of the torn end in the medial compartment
- Chronic symptomatic medial instability, despite receiving non-surgical management<sup>31</sup>
- An MCL tear is confirmed in an active patient
- The range of motion is restored, and the initial swelling has decreased

◆ Advanced imaging shows **ANY** of the following:

- A bony avulsion of the MCL from the medial epicondyle
- MCL injury

#### **Non-Indications**

None.

#### **Site of Service Criteria**

Outpatient

#### **Procedure Codes (HCPCS/CPT)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
27405	Primary repair of torn collateral ligament of knee

## **Service: Lateral Collateral Ligament (LCL) Repair / Reconstruction**

### **General Guidelines**

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Operative management is recommended for:
  - Acute bony avulsions of the femoral or fibular LCL attachment
  - Grade 3 mid-substance LCL tears
  - Chronic lateral knee instability secondary to LCL injury
  - Associated Postero-lateral corner injury
- **Exclusions:** Conservative management is indicated for isolated grade 1-2 injuries.

### **Medical Necessity Criteria**

#### **Indications**

→ **LCL repair/reconstruction** is considered appropriate if **ALL** of the following is **TRUE**<sup>32</sup>:

- ◆ **ANY** of the following are **TRUE**:
  - Pain and instability limit activities of daily living.
  - An LCL tear is confirmed in an active patient.
  - Range of motion restored and initial swelling decreased
- ◆ Advanced imaging shows **ANY** of the following:
  - Presence of an LCL tear (grade 3)
  - Acute bony avulsions of the femoral or fibular LCL attachment

#### **Non-Indications**

None.

### **Site of Service Criteria**

Outpatient

### **Procedure Codes (HCPCS/CPT)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
27405	Primary repair of torn collateral ligament of knee
27427	Lateral collateral ligament (LCL) repair

## Service: Posterior Cruciate Ligament (PCL) Repair / Reconstruction

### General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach<sup>5</sup>:** The approach should depend on the other injuries to be repaired/reconstructed. Operative management is recommended for:
  - Acute or chronic isolated grade 3 PCL injuries with symptoms of pain or instability that failed to improve with an adequate course of conservative treatment
  - PCL insufficiency plus grade 3 MCL or LCL injury or injury to the ACL or PLC
  - Isolated PCL grade 2 or 3 injuries with bony avulsion
  - Isolated chronic PCL injuries with a functionally unstable knee

**Exclusions:** Conservative management is indicated for isolated grade 1-2 injuries.

### Medical Necessity Criteria

#### Indications

→ **PCL repair/reconstruction** is considered appropriate if **ALL** of the following is **TRUE<sup>33</sup>**:

- ◆ **ANY** of the following are **TRUE**:
  - Pain and instability limit activities of daily living.
  - A PCL tear is confirmed in an active patient.
- ◆ Advanced imaging shows **ANY** of the following:
  - Presence of a PCL tear (grade 2 or 3)
  - No evidence of advanced arthritis

#### Non-Indications

None.

### Site of Service Criteria

Outpatient

### Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
27407	Primary repair of torn cruciate ligament of knee

27409	Posterior cruciate ligament reconstruction
29889	Repair of posterior cruciate ligament of knee with assistance of an endoscope
29850	Treatment of knee joint fractures with assistance of an endoscope



## ***Service: Posterolateral Corner (PLC) Repair / Reconstruction***

### **General Guidelines**

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Operative management is recommended for:
  - A grade 2 injury with bony avulsion
  - A grade 3 mid-substance injury
  - In combination with cruciate ligament repair
  - Chronic posterolateral instability
- **Exclusions:** Conservative management is indicated for isolated grade 1-2 injuries.

### **Medical Necessity Criteria**

#### **Indications**

- **PLC repair/reconstruction** is considered appropriate if **ALL** of the following are **TRUE**<sup>34</sup>:
- ◆ Pain and instability limit activities of daily living.
  - ◆ Advanced imaging shows **ANY** of the following:
    - A grade II injury with bony avulsion
    - A grade III mid-substance injury
    - PLC disruption with a cruciate ligament injury

#### **Non-Indications**

None.

### **Site of Service Criteria**

Outpatient

### **Procedure Codes (HCPCS/CPT)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
27427	Extra-articular ligamentous reconstruction of the knee

# 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

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

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

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

# **Postoperative Care**

***Service: Physical Therapy***

## **General Guidelines**

- **Units, Frequency, & Duration:**
  - **ACL surgery:** Physical therapy should begin immediately after surgery and continue for 9-12 months. There is no evidence supporting a specific number of visits per week.
  - **PCL surgery:** PCL rehab is generally more conservative than ACL rehab. Rehabilitation recommendations depend on concomitant injuries/repairs. Weight-bearing restrictions and immobilization/bracing may be in place for up to 6-8 weeks postoperatively. Physical therapy should begin immediately after surgery and continue for 9-12 months.
  - **LCL surgery:** There are no data available on rehabilitation protocols or recommendations for isolated injury.
- **Criteria for Subsequent Requests:**
  - Reinjury
  - Exacerbation/recurrence postoperatively
    - Ligamentous injuries increase the risk of subsequent injury and osteoarthritis (OA).<sup>1</sup>
  - Physical therapy goals have not been achieved
- **Recommended Clinical Approach:**
  - Physical therapy post-ACL or PCL reconstruction should begin immediately, even if weight-bearing limitations are in place.
  - Electrical stimulation may be an appropriate adjunct for the first 2 months.
  - Neuromuscular training is recommended for preventing recurrent ACL injury in the athletic population.
- **Exclusions:** None.

## **Medical Necessity Criteria**

### **Indications**

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

- ◆ The patient underwent corrective knee ligament surgery.

### **Non-Indications**

None.

## **Site of Service Criteria**

Outpatient

### **Procedure Codes (HCPCS/CPT)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
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

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

## **Service: Orthotics**

### **General Guidelines**

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Knee braces can support an anterior cruciate ligament tear or help to prevent one from occurring.<sup>20-23</sup> Patients can wear functional braces during the day without interfering with daily activities. The braces can stabilize the knee and decrease weight on the knee joints, protecting ligaments from injury.<sup>20, 22-25</sup> Functional bracing may be appropriate following ligament reconstruction surgery.
- **Exclusions:** None.

### **Medical Necessity Criteria**

#### **Indications**

- **Orthotics** are considered appropriate if **ANY** of the following is **TRUE**<sup>35</sup>:
- ◆ The patient underwent corrective knee multi-ligament surgery.

#### **Non-Indications**

- **Orthotics** are **NOT** considered appropriate if **ANY** of the following is **TRUE**<sup>35</sup>:
- ◆ The patient is post-isolated ACL reconstruction

### **Site of Service Criteria**

Outpatient

### **Procedure Codes (HCPCS/CPT)**

<b>HCPCS Code</b>	<b>Code Description/Definition</b>
29530	Strapping of knee
L1834	Knee orthosis, without knee joint, rigid, custom fabricated
L1840	Knee orthosis, derotation, medial-lateral, anterior cruciate ligament, custom fabricated
L1844	Knee orthosis, single upright, thigh and calf, with adjustable flexion and extension joint (unicentric or polycentric), medial-lateral and rotation control, with or without varus/valgus adjustment, custom fabricated

L1846	Knee orthosis (KO), double upright, thigh and calf, with adjustable flexion and extension joint (unicentric or polycentric), medial-lateral and rotation control, with or without varus/valgus adjustment, custom fabricated
L2320	Addition to lower extremity, non-molded lacer, for custom fabricated orthosis only
L2330	Addition to lower extremity, lacer molded to patient model, for custom fabricated orthosis only
L2755	Addition to lower extremity orthosis, high strength, lightweight material, all hybrid lamination/prepreg composite, per segment, for custom fabricated orthosis only
L2800	Addition to lower extremity orthosis, knee control, knee cap, medial or lateral pull, for use with custom fabricated orthosis only
L2861	Addition to lower extremity joint, knee or ankle, concentric adjustable torsion style mechanism for custom fabricated orthotics only

## Long-Term Management

**Service: Orthotics**

### General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Knee braces can support an anterior cruciate ligament tear or help to prevent one from occurring.<sup>20-23</sup> Patients can wear functional braces during the day without interfering with daily activities. The braces can stabilize the knee and decrease weight on the knee joints, protecting ligaments from injury.<sup>20, 22-25</sup>
- **Exclusions:** None.

### Medical Necessity Criteria

#### Indications

- **Orthotics** are considered appropriate if **ANY** of the following is **TRUE**:
- ◆ The patient underwent corrective knee ligament surgery

#### Non-Indications

None.

### Site of Service Criteria

Outpatient

### Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
29530	Strapping of knee
L1834	Knee orthosis, without knee joint, rigid, custom fabricated
L1840	Knee orthosis, derotation, medial-lateral, anterior cruciate ligament, custom fabricated
L1844	Knee orthosis, single upright, thigh and calf, with adjustable flexion and extension joint (unicentric or polycentric), medial-lateral and rotation control, with or without varus/valgus adjustment, custom fabricated
L1846	Knee orthosis (KO), double upright, thigh and calf, with adjustable flexion and extension joint (unicentric or

	polycentric), medial-lateral and rotation control, with or without varus/valgus adjustment, custom fabricated
L2320	Addition to lower extremity, non-molded lacer, for custom fabricated orthosis only
L2330	Addition to lower extremity, lacer molded to patient model, for custom fabricated orthosis only
L2755	Addition to lower extremity orthosis, high strength, lightweight material, all hybrid lamination/prepreg composite, per segment, for custom fabricated orthosis only
L2800	Addition to lower extremity orthosis, knee control, knee cap, medial or lateral pull, for use with custom fabricated orthosis only
L2861	Addition to lower extremity joint, knee or ankle, concentric adjustable torsion style mechanism for custom fabricated orthotics only



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# Clinical Guideline Revision History/Information

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<b>Review History</b>	
September 1, 2020 (V.2)	Approving Physician: Dr. Brian Covino
November 15, 2021 (V.3)	Reviewing Physician: Dr. Oladapo M. Babatunde Approving Physician: Dr. Brian Covino
December 29, 2022 (V.4)	Reviewing Physician: Dr. Andrea Young Approving Physician: Dr. Traci Granston