LifeWise
Health Plan of Washington

MEDICAL POLICY – 7.01.549

Knee Arthroscopy in Adults

Effective Date:	**Dec. 3, 2026***
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Replaces:	N/A

*This policy has been revised. Click here to view the current version.

RELATED MEDICAL POLICIES:

1.03.501	Custom-made Knee Orthoses (Braces), Ankle-Foot-Orthoses, and Knee-Ankle-Foot-Orthoses
2.01.534	Intra-Articular Hyaluronan Injections for Osteoarthritis
7.01.15	Meniscal Allograft and Other Meniscus Implants
7.01.48	Autologous Chondrocyte Implantation for Focal Articular Cartilage Lesions
7.01.160	Cartilage Implants for Joint Pain
7.01.550	Knee Arthroplasty in Adults
7.01.582	Bioengineered Skin and Soft Tissue Substitutes
7.01.607	Osteochondral Autografts in the Treatment of Articular Cartilage Lesions
11.01.525	Site of Service Ambulatory Service Center (ASC) Select Surgical Procedures

The Site of Service Medical Necessity criteria within this policy DO NOT apply to Indian Health Services (IHS) facilities.
Please refer to the medical necessity criteria for the procedure only.

Select a hyperlink below to be directed to that section.

POLICY CRITERIA | DOCUMENTATION REQUIREMENTS | CODING
RELATED INFORMATION | EVIDENCE REVIEW | REFERENCES | HISTORY

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Introduction

The knee is a complex joint that includes multiple components. Knee pain can be caused by many different conditions including bending or using the knee too much, arthritis, swelling, fluid collection, tears in any of four different ligaments or in the meniscus (a cushion of cartilage), muscle strains, injuries, infections, or hip problems. Most often knee pain improves with rest, ice, and pain-relieving medications. When knee pain is associated with an injury or pain is worsening or fails to improve after several days, tests or x-ray studies may help to determine the cause and direct the best treatment. Technology has led to the development of a process known as arthroscopy in which the inside of the knee can be visualized and treated. Small incisions (cuts) are made in the knee to allow the surgeon to insert a narrow tube with a camera into the area. The camera sends images to a monitor, which allows the inside of the knee and its structures to

be viewed in detail. Arthroscopy can also be used to diagnose and treat specific knee problems such as repairing the knee or removing damaged tissue. This policy describes when knee arthroscopy is covered by the health plan. For some conditions, a trial of conservative care including physical therapy, time, and medication is recommended before arthroscopy is done.

Note: The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

Policy Coverage Criteria

We will review for medical necessity for these elective surgical procedures.

We also will review the site of service for medical necessity. Site of service is defined as the location where the surgical procedure is performed, such as an off campus-outpatient hospital or medical center, an on campus-outpatient hospital or medical center, an ambulatory surgical center, or an inpatient hospital or medical center.

Site of Service for Elective Surgical Procedures	Medical Necessity
Medically necessary sites of service: • **Ambulatory Surgical Center**	**Certain elective surgical procedures will be covered in the most appropriate, safe, and cost-effective site. This is the preferred medically necessary site of service for certain elective surgical procedures.**
• **Off campus-outpatient hospital/medical center** • **On campus-outpatient hospital/medical center**	**Certain elective surgical procedures will be covered in the most appropriate, safe, and cost-effective site. An elective surgical procedure performed in a hospital outpatient department may be considered medically necessary if there is no access to an ambulatory surgical center due to one of the following criteria:** • There is no qualifying ASC within 30 miles that can provide the necessary care due to ONE of the following: ○ There is no geographically accessible ASC that has the necessary equipment to perform the procedure

Site of Service for Elective Surgical Procedures	Medical Necessity
	○ There is no geographically accessible ASC available at which the individual's physician has privileges ○ An ASC's specific guideline prohibits the use of the ASC related to the individual's health condition or weight • The individual is aged 18 years or younger **OR** • The service being performed is in conjunction with an additional service that requires the use of a hospital outpatient department, and the procedures are being performed in the same operative session **OR** • The individual has a clinical condition which puts them at increased risk for complications including any of the following (this list may not be all inclusive): ○ **Anesthesia Risk** ▪ American Society of Anesthesiologists (ASA) classification III or higher (see **Related Information**) ▪ Personal history of complication of anesthesia ▪ Documentation of alcohol dependence or history of cocaine use ▪ Prolonged surgery (greater than 3 hours) ○ **Cardiovascular Risk** ▪ Uncompensated chronic heart failure (NYHA class III or IV; see **Related Information**) ▪ Recent history of myocardial infarction (MI) (less than 3 months) ▪ Poorly controlled, resistant hypertension***** ▪ Recent history of cerebrovascular accident (less than 3 months) ▪ Increased risk for cardiac ischemia (drug eluting stent placed less than 1 year or angioplasty less than 90 days) ▪ Symptomatic cardiac arrhythmia despite medication ▪ Significant valvular heart disease ○ **Liver Risk**

Site of Service for Elective Surgical Procedures	Medical Necessity
	▪ Advanced liver disease (MELD Score greater than 8)** ○ **Pulmonary Risk** ▪ Chronic obstructive pulmonary disease (FEV1 less than 50%) ▪ Poorly controlled asthma (FEV1 less than 80% despite treatment) ▪ Moderate to severe obstructive sleep apnea*** ○ **Renal Risk** ▪ End stage renal disease (on dialysis) ○ **Other** ▪ Morbid obesity (body mass index greater than or equal to 50) ▪ Pregnancy ▪ Bleeding disorder (requiring replacement factor, blood products, or special infusion product [DDAVP**** does not meet this criterion]) ▪ Anticipated need for transfusion(s) * 3 or more drugs to control blood pressure ** **https://reference.medscape.com/calculator/359/meld-score-age- above-12-years** *** Moderate-Apnea-Hypopnea Index (AHI) greater than or equal to 15 and less than or equal to 30, Severe-AHI greater than or equal to 30 ****DDAVP-Deamino-Delta-D-Arginine Vasopressin (Desmopressin)
• **Off campus-outpatient hospital/medical center** • **On campus-outpatient hospital/medical center**	**These sites of service are considered not medically necessary for certain elective surgical procedures when the site of service criteria listed above are not met.**
Inpatient hospital/medical center	**This site of service is considered NOT medically necessary for these elective surgical procedures**

This policy only applies to adults aged 19 and older.

Hyperlinks to criteria:

Anterior cruciate ligament (ACL) tear

Arthroscopic debridement, drainage, or lavage

Chondromalacia patellae (patellar compression syndrome)

Intra-articular joint pathology

Meniscal tear

Osteochondral defect

Posterior cruciate ligament (PCL) tear

Synovial disorders

Indication	Medical Necessity

Meniscal tear	**Knee arthroscopy for repair of a meniscal tear may be considered medically necessary when ALL of the following criteria are met:**
	• Repair is indicated due to knee injury causing pain and functional impairment (e.g., knee locking, giving way or decreased range of motion [ROM]) that interfere with the individual's ability to carry out activities of daily living (ADLs).
	AND
	• Clinical documentation confirms the presence of ONE of the following:
	  ○ Positive McMurray test
	  ○ Positive Apley test
	  ○ Joint line tenderness with palpation
	AND
	• Symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics, anti-inflammatories).
	AND
	• Diagnostic imaging (MRI, CT, etc.) demonstrates a torn or displaced meniscus (e.g., bucket handle tear, radial tear, posterior horn tear).
	AND
	• **If aged 50 and older**, imaging shows the absence of severe arthritis (i.e., large osteophytes, marked narrowing of joint space, severe sclerosis, and definite deformity of bone contour, or exposed subchondral bone, [e.g., Kellgren-Lawrence grade 3 or 4 or Outerbridge grade 4]). (see **Related Information**)
	OR

Indication	Medical Necessity
	• Meniscus tear coincident with anterior cruciate ligament (ACL) injury, discovered during arthroscopy for ACL **AND** ○ A medically necessary ACL repair or reconstruction has been approved. **Knee arthroscopic partial meniscectomy is considered not medically necessary for a degenerative tear(s) (e.g., horizontal cleavage tear on imaging) with no associated mechanical symptoms (e.g., knee locking, giving way, or decreased range of motion).**
Anterior cruciate ligament (ACL) tear	**Knee arthroscopy for repair of an ACL tear may be considered medically necessary when ALL of the following criteria are met:** • Clinical documentation confirms the presence of ONE of the following: ○ Positive anterior drawer sign (laxity with anterior stress to the knee) ○ Positive pivot shift test ○ Positive Lachman test **AND** • Diagnostic imaging (magnetic resonance imaging [MRI], computed Tomography [CT], etc.) demonstrates an ACL tear. **AND** • Symptoms have not responded to 2 weeks of conservative care (e.g., physical therapy [PT], immobilization, knee brace, activity modification, oral analgesics, anti-inflammatories). ○ Conservative care is not required if there is an acute injury and repair is indicated by ONE of the following: ▪ ACL tear occurred in conjunction with meniscus tear or concomitant multi-ligamentous knee injuries (e.g., medial collateral, posterior cruciate, lateral collateral) ▪ The individual is involved in a physically demanding occupation (e.g., firefighter, law enforcement, construction) ▪ The individual participates in activities involving cutting, jumping, and/or pivoting (e.g., skiing, basketball, football) **Note:** Please see **Related Policies** for information on the BEAR (bridge-enhanced anterior cruciate ligament repair) implant which may be used in conjunction with anterior cruciate ligament repair.

Indication	Medical Necessity

Posterior cruciate ligament (PCL) tear	**Knee arthroscopy for repair or reconstruction of a PCL tear may be considered medically necessary when ALL of the following criteria are met:**
	• Evidence of torn PCL with presence of ONE of the following:
	  ○ Positive posterior drawer sign (laxity with posterior stress to knee)
	  ○ Positive reversed pivot shift test
	  ○ Positive posterior sag sign
	AND
	• Diagnostic imaging (MRI, CT, etc.) demonstrates a PCL tear.
	AND
	• PCL tear occurred with ONE of the following other injuries:
	  ○ Injury to the posterolateral corner of the knee
	  ○ Medial collateral ligament tear
	  ○ ACL tear
	  ○ Avulsion fracture of fibular head
	  ○ Avulsion of the tibia distal to the lateral plateau (Segond fracture)

Arthroscopic debridement, drainage, or lavage	**Knee arthroscopy for arthroscopic debridement, drainage, or lavage may be considered medically necessary when ONE of the following is present:**
	• Septic joint or osteomyelitis
	• Septic prosthetic joint
	• Postoperative arthrofibrosis (e.g., after ACL repair or total knee arthroplasty) as indicated by BOTH of the following:
	  ○ Loss of range of motion
	  AND
	  ○ Symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics, anti-inflammatories)
	
	Arthroscopic debridement, drainage, and/or lavage for the treatment of osteoarthritis of the knee in the absence of any other findings is considered not medically necessary

Intra-articular joint pathology	**Knee arthroscopy for evaluation or treatment of intra-articular joint pathology may be considered medically necessary when ONE of the following are present:** • Mechanical symptoms (including locked knee, catching, or giving way) **OR**

Indication	Medical Necessity

	• A loose or foreign body (including hardware) is evident on imaging or plain x-rays
	OR
	• Symptoms of pathological plica have not responded to the following conservative care measures:
	  ○ Modification of activities to reduce repetitive flexion and extension
	  ○ Anti-inflammatory medications
	  ○ Quadriceps strengthening
	OR
	• Chronic knee pain, effusion, or instability and ALL of the following:
	  ○ Etiology is unknown
	  ○ Imaging (MRI) or plain x-rays are nondiagnostic
	  ○ Symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics, anti-inflammatories)

Osteochondral defect	**Knee arthroscopy for repair of an osteochondral defect (e.g., osteochondritis dissecans) may be considered medically necessary when a displaced osteochondral lesion or loose body is present and the following criterion is met:** • Diagnostic imaging (MRI, CT, etc.) or plain x-rays shows the presence of an osteochondral defect

Chondromalacia patellae (patellar compression syndrome)	**Knee arthroscopy for lateral retinacular release for patellar compression syndrome (chondromalacia patellae) may be considered medically necessary when ONE of the following is present:**
	• Positive patella glide test
	• Positive patella tilt test
	• Articular cartilage lesion and **ALL** of the following:
	  ○ Symptoms are attributed to chondral injury
	  ○ Diagnostic imaging (MRI, CT, etc.) demonstrates a cartilage defect
	  ○ Symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics, anti-inflammatories)

Synovial disorders (CPT 29875, 29876)	**Knee arthroscopy for a synovectomy (limited procedure) is considered medically necessary when ALL of the following criteria are met:** • Imaging confirms a primary localized synovial proliferative process is present (e.g., Hoffa's fat pad syndrome, plica, post procedure focal synovial hypertrophy [cyclops lesion]; see **Related Information**)

Indication	Medical Necessity
	• Physical exam findings and/or symptoms are consistent with a synovial proliferative process (e.g., Clunking patella; see **Related Information**) • Symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics, anti-inflammatories) **Knee arthroscopy for a synovectomy (major procedure) may be considered medically necessary to treat ONE of the following:** • Rheumatoid arthritis • Hemophilic joint disease • Localized pigmented villonodular synovitis • Other chronic inflammatory conditions (e.g., antibiotic-resistant Lyme arthritis)

Documentation Requirements

For meniscal tear, supporting documentation of ALL of the following:

- Repair is indicated due to knee injury causing pain and functional impairment (e.g., knee locking, giving way or decreased range of motion [ROM]) that interferes with the individual's ability to carry out activities of daily living (ADLs)

AND

- Confirming exam and imaging:
  - Positive McMurray test, or positive Apley test, or joint line tenderness with palpation
  - Diagnostic imaging demonstrates torn or displaced meniscus (e.g., bucket handle tear, radial tear, posterior horn tear)

AND

Failed a trial of nonoperative conservative therapy for 8 weeks (e.g., physical therapy, activity modification, oral analgesics)

OR

- Meniscus tear and anterior cruciate ligament injury discovered during arthroscopy for anterior cruciate ligament

AND

- Pre-approved for medically necessary anterior cruciate ligament repair or reconstruction

OR

- For individuals 50 years old and older, imaging shows an absence of severe knee osteoarthritis (e.g., Kellgren-Lawrence grade 3 or 4 or Outerbridge grade 4)

For anterior cruciate ligament tear, supporting documentation of ALL of the following:

Documentation Requirements

- Confirming exam and imaging:
  - Positive anterior drawer sign (laxity with anterior stress to the knee), **or** positive pivot shift test, **or** positive Lachman test
  - Diagnostic imaging (MRI, CT, etc.) shows a tear of the anterior cruciate ligament.

AND

- Failed trial of nonoperative conservative therapy for 2 weeks (e.g., PT, immobilization, knee brace, activity modification, oral analgesics)

OR

- Conservative care is not required if there is an acute injury and repair is indicated by ONE of the following:
  - Anterior cruciate ligament tear occurred in combination with meniscus tear or ligamentous injuries (i.e., medial or posterior collateral ligament, posterior cruciate ligament, or posterolateral ligamentous corner injury)
  - The individual is involved in physically demanding occupation (e.g., firefighter, law enforcement, construction)
  - The individual participates in activities involving cutting, jumping, and/or pivoting (e.g., skiing, basketball, football)

For posterior cruciate ligament tear, supporting documentation of ALL of the following:

- Confirming exam and imaging:
  - Positive posterior drawer sign (laxity with posterior stress to knee), **or** positive reversed pivot shift test, **or** positive posterior sag sign
  - Diagnostic imaging (MRI, CT, etc.) demonstrates a PCL tear.

AND

- PCL tear occurred with ONE of the following other injuries:
  - Injury to the posterolateral corner of the knee
  - Medial collateral ligament tear
  - ACL tear
  - Avulsion fracture of fibular head
  - Avulsion of the tibia distal to the lateral plateau (Segond fracture)

For arthroscopic debridement, drainage, or lavage, supporting documentation of presence of ONE of the following:

- Septic joint or osteomyelitis, or septic prosthetic joint

OR

Documentation Requirements

- Postoperative arthrofibrosis (after ACL repair or total knee arthroplasty) as indicated by BOTH of the following: loss of range of motion **and** the symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics)

For intra-articular joint pathology, history, exam, and diagnostic testing showing ONE of the following:

- Mechanical symptoms (including locked knee or giving way), and a loose or foreign body (including hardware) are seen on imaging
- A loose or foreign body (including hardware) is evident on imaging or plain x-rays
- Symptoms of pathological plica have not responded to the following conservative care measures:
  - Modification of activities to reduce repetitive flexion and extension
  - Anti-inflammatory medications
  - Quadriceps strengthening
- Chronic knee pain, effusion, or instability is present along with all of the following: Etiology is unknown, **and** imaging studies are nondiagnostic **and** symptoms have not responded to 8 weeks of non-operative conservative therapy (e.g., PT, activity modification, oral analgesics)

For osteochondral defect, history, exam demonstrates presence of displaced osteochondral lesion or presence of loose body and the following:

- Osteochondral defect demonstrated on imaging

For chondromalacia patellae (patellar compression syndrome), history, exam show one of the following:

- Positive patella glide test **or** positive patella tilt test; **or**
- Articular cartilage lesion and all of the following: symptoms attributed to chondral injury **and** cartilage defect demonstrated on imaging, **and** symptoms have not responded to 8 weeks conservative care (e.g., PT, activity modification, oral analgesics)

For knee arthroscopy for a synovectomy (limited procedure), to treat one of the following medical conditions:

- Imaging confirms a primary localized synovial proliferative process is present (e.g., Hoffa's fat pad syndrome, plica, post procedure focal synovial hypertrophy [cyclops lesion])
- Physical exam findings and/or symptoms are consistent with a synovial proliferative process (e.g., Clunking patella)
- Symptoms have not responded to 8 weeks of conservative care (e.g., PT, activity modification, oral analgesics, anti-inflammatories)

Documentation Requirements

Knee arthroscopy for a synovectomy (major procedure) to treat one of the following medical conditions:

- Rheumatoid arthritis, **or** hemophilic joint disease **or** localized pigmented villonodular synovitis **or** other chronic inflammatory conditions (e.g., antibiotic resistant Lyme arthritis)

Coding

Code	Description
CPT	
29871	Arthroscopy, knee, surgical; for infection, lavage and drainage
29873	Arthroscopy, knee, surgical; with lateral release
29874	Arthroscopy, knee, surgical; for removal of loose body or foreign body, (e.g., osteochondritis dissecans fragmentation, chondral fragmentation)
29875	Arthroscopy, knee, surgical; synovectomy, limited (e.g., plica or shelf resection)
29876	Arthroscopy, knee, surgical; synovectomy, major, 2 or more compartments (e.g., medial or lateral)
29877	Arthroscopy, knee, surgical; debridement/shaving of articular cartilage (chondroplasty)
29879	Arthroscopy, knee, surgical; abrasion arthroplasty (includes chondroplasty where necessary) or multiple drilling or microfracture
29880	Arthroscopy, knee, surgical; with meniscectomy (medial AND lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed
29881	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed
29882	Arthroscopy, knee, surgical; with meniscus repair (medial OR lateral)
29883	Arthroscopy, knee, surgical; with meniscus repair (medial AND lateral)
29884	Arthroscopy, knee, surgical; with lysis of adhesions, with or without manipulation (separate procedure)
29888	Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction
29889	Arthroscopically aided posterior cruciate ligament repair/augmentation or reconstruction

Related Information

Consideration of Age

There is a lack of scientific evidence supporting arthroscopy for meniscal tears in middle aged individuals (aged 50 or older) with severe arthritis. Several studies show the surgery is no better than a placebo and is not recommended by the American Academy of Orthopedic Surgeons. This policy is intended for use in the adult population as it is based on utilization in this population.

Definition of Terms

Table 1: American Society of Anesthesiologists (ASA) Physical Status Classification

ASA PS Classification	Definition	Adult Examples including, but not limited to
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Current smoker, social alcohol drinker, pregnancy, obesity (30<BMI<40), well-controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations; One or more moderate to severe diseases. Poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, history (>3 months) of MI, CVA, TIA, or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Recent (<3 months) MI, CVA, TIA or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, shock, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain-dead patient whose organs are being removed for donor purposes	

DM-diabetes mellitus, HTN-hypertension, COPD-chronic obstructive pulmonary disease, ESRD-end stage renal disease, MI-myocardial infarction, CVA-cerebral vascular accident, TIA-transient ischemic attack, CAD-coronary artery disease, DIC-disseminated intravascular coagulation, ARD-acute respiratory distress.

Source: **https://www.asahq.org/standards-and-practice-parameters/statement-on-asa-physical-status-classification-system**. Accessed July 6, 2026.

Anterior drawer test: A test used in the initial clinical assessment of suspected rupture of the cruciate ligaments in the knee.

Apley test: A test used to evaluate problems of the meniscus.

Chondromalacia patella: Inflammation and softening of the cartilage on the underside of the patella causing pain on the front of the knee.

Chondroplasty: Surgery to smooth and reshape cartilage by scraping, cutting, or shaving it. The procedure is often done arthroscopically.

Clunking patella: A condition that is caused by an abnormal thickening and overgrowth (hyperplasia) of the synovial membrane that lines the knee joint. This is also known as a synovial proliferative process. This proliferative process can lead to the formation of a nodule or dense tissue just above the knee cap. It is a common complication after knee replacement surgery. It is named for the sound that is made when bending the knee and then straightening it when this nodule gets caught in the implant's groove, causing a painful and audible "clunking" sound. It may be treated initially with conservative management, and if that fails, with arthroscopic surgery. It may also be known as clunking patella syndrome.

Cyclops lesion of the knee: A localized, fibrous nodule that forms at the front of the knee. The condition may be caused by persistent inflammation, which can lead to thickening and swelling of the joint lining, also known as synovial hypertrophy. This inflammatory response may lead to arthrofibrosis and the growth of the nodule. The lesion is named "cyclops" because it resembles an eye on imaging or arthroscopic visualization. It may may be associated with pain, clicking, and the inability to fully extend the knee. MRI confirms the diagnosis. Initial treatment is typically conservative, if symptoms fail to improve, arthroscopic treatment may be considered. The condition is commonly seen after anterior cruciate ligament (ACL) reconstruction.

Kellgren-Lawrence Grading Scale

• **Grade 1**: Doubtful narrowing of joint space and possible osteophytic lipping

• **Grade 2**: Definite osteophytes, definite narrowing of joint space

• **Grade 3**: Moderate multiple osteophytes, definite narrowing of joints space, some sclerosis and possible deformity of bone contour

• **Grade 4**: Large osteophytes, marked narrowing of joint space, severe sclerosis and definite deformity of bone contour

Hoffa's fat pad syndrome: A painful condition caused by inflammation (swelling) and impingement of the infrapatellar fat pad, The infrapatellar fat pad is a soft tissue cushion located just beneath the kneecap that separates the kneecap from the thighbone (femur) and shinbone (tibia). Hoffa's fat pad syndrome is often caused by trauma or irritation near the kneecap. Because the area has many nerve endings, it can be extremely sensitive to pain. Treatment usually begins with conservative management. If conservative treatment does not relieve symptoms, arthroscopic surgery may be considered.

Knee giving way: The knee is held together by ligaments, and the sensation of instability, or the knee giving out, is often due to a tear in one of the knee ligaments or menisci.

Knee locking: The sudden inability to either bend or straighten the knee. This is usually caused by a mechanical block to knee motion and is accompanied by significant pain. The most common cause is a fragment of torn meniscal tissue that becomes stuck between the articular surfaces.

Lachman test: A test to diagnose ACL injuries. With the patient supine, the knee is flexed at 20-30 degrees. The femur is secured, and with the examiner's thumb on the tibial tuberosity, the tibia is pulled forward. A positive test is anterior displacement, and the absence of a solid stop (end point) compared to unaffected leg.

McMurray test: A rotation test used to evaluate individuals for tears in the meniscus of the knee.

Microfracture: A type of surgery used to repair damaged articular cartilage. The surgeon makes small holes in the bone just below the cartilage, which then allows stem cells from the bone marrow to get to the surface and stimulate cartilage growth. This works best when the defect is less than 2 centimeters in diameter and the individual is younger than 30 years of age.

Modified Outerbridge Classification:

The Outerbridge classification is a grading system for joint articular cartilage breakdown (chondromalacia grading). It has been modified to report MRI results, as it was originally used for arthroscopy results. **Table 2** below shows the correlation between the two.

Table 2. Modified Outerbridge Classification

Grade	MRI Results	Arthroscopy Results
GRADE I	Focal areas of hyperintensity with normal contour	Cartilage with softening and swelling

Grade	MRI Results	Arthroscopy Results
GRADE II	Blister-like swelling/fraying of articular cartilage extending to surface	Fragmentation and fissuring within soft areas of articular cartilage
GRADE III	Partial thickness cartilage loss with focal ulceration	Partial thickness cartilage loss with fibrillation (crab-meat appearance)
GRADE IV	Full thickness cartilage loss with underlying bone reactive changes	Cartilage destruction with exposed subchondral bone*

*Subchondral bone is the bone underneath the white joint cartilage.

New York Heart Association (NYHA) Classification:

Class I No symptoms and no limitation in ordinary physical activity, e.g., shortness of breath when walking, climbing stairs etc.
Class II Mild symptoms (mild shortness of breath and/or angina) and slight limitation during ordinary activity.
Class III Marked limitation in activity due to symptoms, even during less-than-ordinary activity, e.g., walking short distances (20–100 m). Comfortable only at rest.
Class IV Severe limitations. Experiences symptoms even while at rest. Mostly bedbound patients

Patellar tilt test: A test that assesses the tightness of lateral soft tissue structures in the knee by looking at the amount of lateral tilt or displacement of the patella. It has been used to help diagnose patellofemoral pain syndrome.

Patellar glide test: A test where the patella is manually displaced laterally and medially with the knee extended and the quadriceps relaxed. Translation of less than one-quarter of the patella's width signifies a tight retinaculum, while translation of three-quarters of the patella's width signifies a hypermobile patella. It has been used to help diagnose patellofemoral pain syndrome.

Patellofemoral pain syndrome: Anterior knee pain involving the patella and retinaculum that excludes other intraarticular and peripatellar pathology. The pain worsens with prolonged sitting or when descending stairs. It is a complex syndrome and is a diagnosis of exclusion.

Pigmented villonodular synovitis: A condition that causes the synovium (the thin layer of tissue that lines the joints and tendons) to thicken and overgrow.

Pivot shift test: An accurate test for the anterior cruciate ligament, lateral cruciate ligament, and posterior capsule integrity.

Plica: The term plica is derived from the Latin word for "fold." In orthopedic knee anatomy it refers to a fold in the synovium, the lubricating lining of the knee joint. A plica may become irritated, inflamed, or thickened due to overuse or injury. When this occurs, it can rub against bone and cause pain, clicking, and swelling. This condition is also known as plica syndrome.

Evidence Review

Description

Knee arthroscopy is a surgical procedure performed through small incisions. During the procedure, the surgeon inserts an arthroscope into the knee joint. The arthroscope sends the image to a monitor so the structures of the knee can be observed in greater detail. The arthroscope is used to feel, repair, or remove damaged tissue. To do this, small surgical instruments are inserted through separate incisions around the knee.

Knee arthroscopy is the most commonly performed orthopedic procedure. Indications include diagnostic arthroscopy, meniscectomy, loose body removal, chondroplasty, microfracture, irrigation and debridement, and ligament reconstruction.

The two most frequent operative procedures in knee arthroscopy are meniscectomy and chondroplasty. Areas of cartilage degeneration or damage can be treated with chondroplasty. Rough and unstable cartilage lesions are treated with the use of an oscillating shaver, curettes, and other debridement tools. Unstable cartilage is removed while being careful not to damage healthy cartilage or to expose bare bone. Microfracture chondroplasty is an advanced technique for treating cartilage damage.

Background

Intra-articular Joint Pathology

Synovial plicae are membranous inward folds of the synovial lining of the knee joint capsule. Such folds are regularly found in the human knee, but most are asymptomatic and of little clinical consequence. However, they can become symptomatic and cause knee pain. Medial plica irritation of the knee is a common source of anterior knee pain. The main complaint is an intermittent, dull, aching pain in the area medial to the patella above the joint line and in the

supromedial patellar area. Pain increases with activity, especially when knee flexion and extension are required. Treatment includes physiotherapy, reducing activity, and rest. In cases that do not respond initially to an exercise program, corticosteroid injections and non-steroidal anti-inflammatory medication are given. Results of conservative treatment seem to be more appropriate in young individuals with a short duration of symptoms. If conservative treatment fails, surgical treatment using arthroscopy is appropriate. During arthroscopy, excision of the whole plica should be achieved.[1]

Articular cartilage lesions of the knee are most commonly treated with chondroplasty or microfracture chondroplasty.

Osteochondral Dissecans

Juvenile osteochondritis dissecans (JOCD) has been a recognized entity for more than 100 years. Despite long recognition of JOCD, the natural history and most effective therapies are poorly understood. Although conclusive evidence of an exact cause is lacking, there is widespread agreement that JOCD is related to repetitive trauma. Individuals with JOCD present with vague pain and occasionally, mechanical symptoms. The diagnosis of JOCD can be confirmed on plain radiographs. Magnetic resonance imaging has emerged as the study of choice to evaluate the stability of the lesion and integrity of the overlying articular cartilage. Treatment decisions are based on the stability of the lesion. Stable JOCD lesions should be treated initially with activity modification and possibly immobilization. Unstable lesions and stable lesions not responding to an initial course of nonoperative therapy should be surgically treated. Surgical treatment is based on the radiographic and arthroscopic characteristics of the lesion. Multiple techniques from simple arthroscopic drilling and fixation to salvage techniques for cartilage restoration are discussed in this policy.[2]

Torn Meniscus

In 2014, Mordecai et al wrote an evidence-based review exploring the options for managing meniscal tears. Treatment options for meniscal tears fall into three broad categories: non-operative, meniscectomy, or meniscal repair. Selecting the most appropriate treatment for a given individual involves both patient factors and tear characteristics. There is evidence suggesting that degenerative tears in older individuals without mechanical symptoms can be effectively treated non-operatively with a structured physical therapy program as a first line. Even if these individuals later require meniscectomy, they will still achieve similar functional

outcomes than if they had initially been treated surgically. Partial meniscectomy is suitable for symptomatic tears not amenable to repair and can still preserve meniscal function especially when the peripheral meniscal rim is intact. Meniscal repair shows 80% success at 2 years and is more suitable in younger individuals with reducible tears that are peripheral and horizontal or longitudinal in nature. However, careful patient selection and repair technique is required with good compliance to post-operative rehabilitation which often consists of bracing and non-weight bearing for 4-6 weeks.[3]

In 2025, Pujol et al, published a formal consensus from the European Society for Sports Traumatology and Arthroscopy (ESSKA), the American Orthopedic Society for Sports Medicine, and the American Academy of Sports Physical Therapy to provide recommendations for the usage of rehabilitation for individuals with symptomatic menisci and found that there was no evidence-based treatment protocol that existed. Thus, a criterion-based rehabilitation protocol based on milestones is what the consensus recommended instead. Full weight bearing is allowed early after arthroscopic partial meniscectomy surgery (Grade A).[46]

Torn Ligaments

The multiple ligament-injured knee is a complex problem in orthopedic surgery. These injuries may or may not present as acute knee dislocations, and careful assessment of the extremity vascular and neurologic status is essential because of the possibility of arterial and/or venous compromise and nerve injury. These complex injuries require a systematic approach to evaluation and treatment. Physical examination and imaging studies enable the surgeon to make a correct diagnosis and formulate a treatment plan. Knee stability is improved postoperatively when evaluated with knee ligament rating scales, arthrometer testing, and stress radiographic analysis. Surgical timing depends on the injured ligaments, vascular status of the extremity, reduction stability, and the overall health of the individual. The use of allograft tissue is preferred because of the strength of these large grafts, and the absence of donor site morbidity.[4]

In 2015, the Multicenter Orthopaedic Outcomes Network (MOON) longitudinal research on ACL reconstruction stated meniscal injuries were the most common injury found in both primary and revision ACL procedures. There were 509 individuals in the primary ACL revision and 281 individuals underwent revision reconstruction. With the high prevalence of meniscal tears associated with ACL tears, meniscal repairs are a necessary component of the ACL reconstruction to help minimize potential for posttraumatic osteoarthritis.[5]

The optimal treatment of posterior cruciate ligament ruptures remains controversial despite numerous recent basic science advances on the topic. The current literature on the anatomy, biomechanics, and clinical outcomes of posterior cruciate ligament reconstruction is reviewed. Recent studies have quantified the anatomic location and biomechanical contribution of each of the two posterior cruciate ligament bundles on tunnel placement and knee kinematics during reconstruction. Additional laboratory and cadaveric studies have suggested double-bundle reconstructions of the posterior cruciate ligament may better restore normal knee kinematics than single-bundle reconstructions although clinical outcomes have not revealed such a difference. Tibial inlay posterior cruciate ligament reconstructions (either open or arthroscopic) are preferred by many authors to avoid the "killer turn" and graft laxity with cyclic loading. Posterior cruciate ligament reconstruction improves subjective patient outcomes and return to sports, although stability and knee kinematics may not return to normal.[6]

Synovial Disorders

Collectively, benign synovial disorders are not uncommon, and they may be seen in general orthopedic practices. Symptoms are nonspecific, often delaying diagnosis. In fact, synovial chondromatosis, pigmented villonodular synovitis, synovial hemangioma, and lipoma arborescens often mimic each other as well as other, more common joint disorders in presentation, making diagnosis extremely difficult. It is important to diagnose these disorders correctly to provide appropriate treatment and avoid secondary sequelae, such as bone erosion and cartilage degeneration.[8]

Chondromalacia Patellae (Patellar Compression Syndrome)

Patellofemoral pain syndrome has many names including chondromalacia patellae. It is the most common cause of knee pain in teenagers and young adults due to overuse injury in sports like running. It is caused by weakness of the quadriceps muscles resulting in improper knee alignment and pressure on the outer part of the kneecap. The inner and outer retinaculums become stretched. It may also occur in older adults who have arthritis of the knee. Treatment includes muscle strengthening exercises, patellar taping, physical therapy, and surgery. The need for surgery (lateral retinacular release) is almost eliminated with vastus medialis obliquus strengthening and a taping program.[9, 10.]

Osteoarthritis

In 2002, Moseley et al published a randomized placebo-controlled trial to evaluate the efficacy of arthroscopy for osteoarthritis (OA) of the knee.[12] One hundred eighty individuals were randomized to debridement (without abrasion or microfracture), lavage or placebo surgery. Placebo surgery involved a skin incision and simulated debridement without insertion of the arthroscope. Individuals and assessors were blinded to treatment group. Neither treatment group reported less pain or better function than the placebo group at any time point over the 2-year follow-up.

A systematic review produced in 2007 for the Agency for Healthcare Research and Quality by the Blue Cross and Blue Shield Association Technology Evaluation Center Evidence-based Practice Center noted that generalizability of study results was limited by the lack of detail provided regarding the patient sample, the use of a single surgeon, and enrollment of individuals at a single Veterans Affairs Medical Center.[11] The report concluded that "the existing evidence does not definitively show that arthroscopic lavage with or without debridement is more effective than placebo. However, additional placebo controlled RCTs showing clinically significant advantage for arthroscopy would be necessary to refute the Moseley results, which show equivalence between placebo and arthroscopy."

A 2008 Cochrane review of arthroscopic debridement for knee OA assessed 3 RCTs, including the study by Moseley et al and concluded that there is gold-level evidence that arthroscopic debridement has no benefit for undiscriminated OA (mechanical or inflammatory causes).[13] The other two studies included in the Cochrane review were of lower methodologic quality and compared arthroscopy with lavage. In one of the reviewed studies Chang et al compared arthroscopy with closed needle lavage and found no significant between-group differences in pain, self-reported and observed functional status, and patient and physician global assessments.[14] This study was small (32 subjects) with only 3 months of follow-up. The second study was a randomized trial of 76 knees, 40 laparoscopic debridement and 36 washout, with mean follow-up time of 4.5 years and 4.3 years, respectively.[15] At 1 year, 32 of the debridement group and 5 of the washout group were pain-free. At 5 years, 19 of the survivors in the debridement group and 3 of the 26 in the washout group were free of pain. This study was noted by the Cochrane review to be at high risk of bias; specifically, outcome assessors were neither independent nor blinded, and pain was measured as success when absent and failure when present.

An updated systematic review of the evidence for joint lavage for OA of the knee was published by the Cochrane Musculoskeletal Group in May 2010 and was based on the literature to April 2009.[16] This review included 7 trials with 567 individuals. The Cochrane review did not include

the study described below by Kirkley et al,[17] since that trial focused on debridement. The authors concluded that joint lavage does not result in a benefit for individuals with knee OA for pain relief or improvement in function.

In September 2008, Kirkley et al[16] published a single-center RCT comparing surgical lavage and/or arthroscopic debridement (without abrasion or microfracture) together with optimized physical and medical therapy, or physical and medical therapy alone. Individuals with more than five degrees of misalignment were excluded. Both men and women were included. Seven experienced arthroscopists performed lavage, debridement, or both at their discretion. Between January 1999 and August 2005, 277 individuals were assessed for eligibility; 58 were not eligible (most [38%] because of substantial misalignment) and 31 declined participation. Ninety-two individuals were randomly assigned to the surgery arm and 86 were assigned to physical and medical therapy alone. Ten withdrew consent (2 in the surgery and 8 in the control group). Six in the surgery group did not undergo surgery. Data from these individuals was included in the intent to treat analysis. The primary outcome was total Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score. Secondary outcomes included the Short Form-36 (SF-36) Physical Component Summary score. After 2 years, the mean (standard deviation) WOMAC score for the surgery group was 874 (624) as compared with 897 (583) for the control group (absolute difference [surgery-group score minus control-group score], -23 (605); 95% confidence interval [CI], -208 to 161; P=0.22). The SF-36 Physical Component Summary scores were 37.0 and 37.2, respectively (absolute difference, -0.2; 95% CI: -3.6 to 3.2; P=0.93). Analyses of WOMAC scores at interim visits and other secondary outcomes also failed to show superiority of surgery. Prespecified analyses of subgroups were performed for individuals with less severe disease (Kellgren-Lawrence grade 2) at baseline and individuals with mechanical symptoms of catching or locking, and no significant difference between treatment groups was found. A post-hoc analysis of individuals with more severe radiographic disease (Kellgren-Lawrence grade 3 or 4) also found no benefit of surgery.

In March 2013, Katz et al[18] published a multicenter, randomized, controlled trial comparing arthroscopic partial meniscectomy surgery and postoperative physical therapy to a standardized physical therapy regimen (with the option to cross over to surgery) for symptomatic individuals with a meniscal tear and concomitant mild-to-moderate osteoarthritis. They enrolled symptomatic individuals 45 years of age or older with a meniscal tear as well as osteoarthritis detected on MRI or x-ray. The primary outcome was the difference between the study groups with respect to the change in the score on the physical-function scale of the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) from baseline to 6 months after randomization. They found no significant differences in the magnitude of improvement in functional status and pain after 6 and 12 months between individuals assigned to arthroscopic partial meniscectomy with postoperative physical therapy and individuals assigned to a

standardized physical therapy regimen. At 6 months the WOMAC score was 20.9 points (95% confidence interval [CI], 17.9 to 23.9) in the surgical group and 18.5 (95% CI: 15.6 to 21.5) in the physical-therapy group (mean difference, 2.4 points; 95% CI: -1.8 to 6.5). At 6 months, 51 active participants in the study who were assigned to physical therapy alone (30%) had undergone surgery, and 9 individuals assigned to physical therapy alone (30%) had undergone surgery, and 9 individuals assigned to surgery (6%) had not undergone surgery. The results at 12 months were similar to those at 6 months.

In 2015, Thorlund et al [20] published a systematic review and meta-analysis of benefits and harms of arthroscopic surgery for degenerative knee disease. The objective was to determine benefits and harms of arthroscopic knee surgery involving partial meniscectomy, debridement, or both for middle aged or older individuals with knee pain and degenerative knee disease. The main outcome measures were pain and physical function. RCTs assessing benefits of arthroscopic surgery involving partial meniscectomy, debridement, or both for individuals with and without radiographic signs of osteoarthritis were included. The search identified nine trials. The main analysis, which combined the primary endpoints of the individual trials from three to 24 months postoperatively, showed a small difference in favor of interventions including arthroscopic surgery compared with control treatments for pain (effect size 0.14, 95% confidence interval 0.03 to 0.26). This difference corresponds to a benefit of 2.4mm (95% confidence interval 0.4 to 4.3) on a 0-100 mm visual analogue scale. When analyzed over time of follow-up, interventions including arthroscopy showed a small benefit of 3-5 mm for pain at three and six months but not later up to 24 months. No significant benefit on physical function was found (effect size 0.09, -0.05 to 0.24). Nine studies reporting on harms were identified. Harms included symptomatic deep venous thrombosis (4.13 events per 1000 procedures [95% confidence interval 1.78 to 9.60]) pulmonary embolism, infection, and death. The authors concluded there was small inconsequential benefit seen from interventions that include arthroscopy for the degenerative knee, which is limited in time and absent at one to two years after surgery. Knee arthroscopy is associated with harms. Taken together, these findings do not support the practice of arthroscopic surgery for middle-aged or older individuals with knee pain with or without signs of osteoarthritis.

Practice Guidelines and Position Statements

Osteoarthritis Research Society International

The Osteoarthritis Research Society International (OARSI) convened 16 experts from primary care, rheumatology, orthopedics, and evidence-based medicine from 6 countries including the

United States to develop consensus recommendations for management of hip and knee OA. OARSI concluded that, "…the roles of joint lavage and arthroscopic debridement are controversial and that, although some studies have demonstrated short-term symptom relief, others suggest that improvement in symptoms could be attributable to a placebo effect."[19]

American Academy of Orthopaedic Surgeons

Guideline recommendations from the American Academy of Orthopaedic Surgeons (AAOS) were updated in their Management of Osteoarthritis of the Knee (Non-Arthroplasty) Evidence-based clinical practice guideline published in 2021.[45.]

- Arthroscopy with lavage and/or debridement in patients with a primary diagnosis of knee osteoarthritis is not recommended
- Strength of Recommendation: Moderate
- Arthroscopic partial meniscectomy can be used for the treatment of meniscal tears in patients with concomitant mild to moderate osteoarthritis who have failed physical therapy or other nonsurgical treatments.
- Strength of Recommendation: Moderate
- Description: A moderate recommendation means there is evidence from two or more "Moderate" quality studies with consistent findings, or evidence from a single "High" quality study for recommending for or against the intervention.

In 2022 the AAOS published updated "Management of Anterior Cruciate Ligament Injuries: Evidence-based clinical practice guideline.[46] Relevant recommendations to this policy include:

- When surgical treatment is indicated for an acute isolated ACL tear, early reconstruction is preferred because the risk of additional cartilage and meniscal injury starts to increase within 3 months. Strength of Recommendation: Strong, Quality of Evidence: High
- ACL tears indicated for surgery should be treated with ACL reconstruction rather than repair because of the lower risk of revision surgery. Strength of Recommendation: Strong, Quality of Evidence: High.
- Prophylactic bracing is not a preferred option to prevent ACL injury. Strength of Option: Limited, Quality of Evidence: Low

- Functional knee braces are not recommended for routine use in patients who have received isolated primary ACL reconstruction, as they confer no clinical benefit. Strength of Option: Limited, Quality of Evidence: High
- Description: A strong recommendation means there is evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention.
- A limited strength of option means there is evidence from one or more "Low" quality studies with consistent findings from a single "Moderate" quality study recommending for or against the intervention.

In 2024, the AAOS published "Acute Isolated Meniscal Pathology" evidence-based clinical practice guideline[48] with the following applicable recommendations:

- Physical examination, including joint line tenderness, the McMurray test, and the Thesally test, can effectively diagnose acute meniscal tears and may yield more accurate results when combined. Strength of Recommendation: Moderate, Quality of Evidence: High
- Patients with acute meniscal tear who have failed conservative treatment may have better outcomes from surgical intervention within six months of injury. Strength of Option: Limited, Quality of Evidence: Low
- Meniscus repair can improve patient outcomes compared to partial meniscectomy in acute isolated meniscal tears with healing potential. Strength of Option: Limited, Quality of Evidence: Low
- Description: Description: A moderate recommendation means there is evidence from two or more "Moderate" quality studies with consistent findings, or evidence from a single "High" quality study for recommending for or against the intervention. A limited strength of option means there is evidence from one or more "Low" quality studies with consistent findings from a single "Moderate" quality study recommending for or against the intervention.

National Institute for Health and Care Excellence (NICE)

In 2014 NICE published Clinical guidelines (CG177) Osteoarthritis: care and management, which was last updated December 11, 2020[38] and recommends intra-articular corticosteroid injections should be considered as an adjunct to core treatments for the relief of moderate to severe pain in people with OA. The guidelines do not recommend offering intra-articular hyaluronan injections for the management of OA. This guideline was updated in 2022 to a NICE guideline

for Osteoarthritis in over 16s: diagnosis and management (NG226)[39] and continues to confer that intra-articular hyaluronan injections to manage osteoarthritis should not be offered, but to consider intra-articular corticosteroid injections when other pharmacological treatments are ineffective or unsuitable with the caveat that they are only for short-term relief (2 to 10 weeks).

Centers for Medicare and Medicaid Services Coverage Position

The Centers for Medicare & Medicaid Services (CMS) determined that the following procedures are not considered reasonable or necessary in treatment of the osteoarthritic knee and are not covered by the Medicare program:[36]

- Arthroscopic lavage used alone for the osteoarthritic knee,
- Arthroscopic debridement for osteoarthritic patients presenting with knee pain only; or,
- Arthroscopic debridement and lavage with or without debridement for patients presenting with severe osteoarthritis. (Severe osteoarthritis is defined in the Outerbridge classification scale, grades III and IV. Grade I is defined as softening or blistering of joint cartilage. Grade II is defined as fragmentation or fissuring in an area <1 cm. Grade III presents clinically with cartilage fragmentation or fissuring in an area >1 cm. Grade IV refers to cartilage erosion down to the bone. Grades III and IV are characteristic of severe osteoarthritis.)

References

1. Sznajderman T, Smorgick Y, Lindner D, Beer Y, Agar G. Medial plica syndrome. Israel Medical Association Journal 2009;11(1):54-7.
2. Polousky JD. Juvenile osteochondritis dissecans. Sports Medicine and Arthroscopy Review 2011;19(1):56-63.
3. Mordecal S C, Al-Hadithy N, Ware HE, Gupte C M. Treatment of meniscal tears: An evidence-based approach. World J of Orthop 2014 July 18; 5(3): 233-241.
4. Fanelli GC, Beck JD, Edson CJ. Combined PCL-ACL lateral and medial side injuries: treatment and results. Sports Medicine and Arthroscopy Review 2011;19(2):120-30.
5. Lynch TS, Parker RD, Patel RM, et al. The Impact of the Multicenter Orthopaedic Outcomes Network (MOON) Research on Anterior Cruciate Ligament Reconstruction and Orthopaedic Practice. J Am Acad Orthop Surg 2015 Mar;23(3):154-63.
6. Voos JE, Mauro CS, Wente T, Warren RF, Wickiewicz TL. Posterior cruciate ligament: anatomy, biomechanics, and outcomes. American Journal of Sports Medicine 2012;40(1):222-31.
7. Stein D, Cantlon M, MacKay B, Heolscher C. Cysts about the knee: evaluation and management. J Am Acad Orthop Surg 2013 Aug; 21(8):469-79.

8. Adelani MA, Wupperman RM, Holt GE. Benign synovial disorders. Journal of the American Academy of Orthopedic Surgeons 2008;16(5):268-75.

9. Lattermann C, Toth J, Bach BR. The role of lateral retinacular release in the treatment of patellar instability. Sports Medicine and Arthroscopy Review 2007;15(2):57-60.

10. Patellofemoral pain syndrome. In DynaMed [database online]. EBSCO Information Services. Last updated March 11, 2015. (Now requires subscription to access). Accessed September 16, 2025.

11. Samson DJ, Grant MD, Ratko TA, et al. Treatment of Primary and Secondary Osteoarthritis of the Knee. Evidence Report/Technology Assessment No. 157 (Prepared by Blue Cross and Blue Shield Association Technology Evaluation Center Evidence-based Practice Center under Contract No. 290-02-0026). AHRQ Publication No. 07-E012. Rockville, MD: Agency for Healthcare Research and Quality. September 2007. Archived. Accessed September 16, 2025.

12. Moseley JB, O'Malley K, Petersen NJ, et al. A controlled trial of arthroscopic surgery for osteoarthritis of the knee. N Engl J Med 2002; 347(2):81-8.

13. Laupattarakasem W, Laopaiboon M, Laupattarakasem P, et al. Arthroscopic debridement for knee osteoarthritis. Cochrane Database Syst Rev 2008; (1): CDD005118.

14. Chang RW, Falconer J, Stulberd SD, et al. A randomized, controlled trial of arthroscopic surgery versus closed-needle joint lavage for patients with osteoarthritis of the knee. Arthritis Rheum 1993; 36(3):289-96.

15. Hubbard MJ. Articular debridement versus washout for degeneration of the medial femoral condyle. A five-year study. J Bone Joint Surg Br 1996; 78(2):217-9.

16. Reichenbach S, Rutjes AW, Nuesch E et al. Joint lavage for osteoarthritis of the knee. Cochrane Database Syst Rev 2010; (5):CD007320.

17. Kirkley A, Birmingham TB, Litchfield RB, et al. A randomized trial of arthroscopic surgery for osteoarthritis of the knee. N Engl J Med 2008; 359(11):1097-107.

18. Katz JN, Brophy RH, Chaissom CE, et al. Surgery versus Physical Therapy for a Meniscal Tear and Osteoarthritis. N Engl J Med 2013, 368(18):1675-1684.

19. Zhang W, Moskowitz RW, Nuki G, et al. OARSI recommendations for the management of hip and knee osteoarthritis. Part KK: OARSI evidence-based, expert consensus guidelines. Osteoarthritis Cartilage 2008; 16(2):137-62.

20. Thorlund JB, Juhl CB, Roos EM, Lohmander LS. Arthroscopic surgery for degenerative knee: systematic review and meta-analysis of benefits and harms. BMJ 2015;350:h2747.

21. American Academy of Orthopaedic Surgeons. Treatment of osteoarthritis of the knee. May 18, 2013, 2nd edition. Available online at: **https://aaos.org/globalassets/quality-and-practice-resources/osteoarthritis-of-the-knee/osteoarthritis-of-the-knee-2nd-editiion-clinical-practice-guideline.pdf**. Accessed July 6, 2026.

22. Steadman JR, Briggs KK, Matheny LM, Ellis HB. Ten-year survivorship after knee arthroscopy in patients with Kellgren-Lawrence grade 3 and grade 4 osteoarthritis of the knee. Arthroscopy. 2013;29(2):220-225. PMID:23273893.

23. Englund M, Guermazi A, Gale D, et al. Incidental Meniscal Findings on Knee MRI in Middle-Aged and Elderly Persons. N Eng J Med 2008; 359(11):1108-1115.

24. Herrlin SV, Wange PO, Lapidus G, et al. Is arthroscopic surgery beneficial in treating non-traumatic, degenerative medial meniscal tears? A five-year follow-up. Knee Surg Sport Traumatol Arthrosc. 2013; 21(2):358-364. PMID: 22437659.

25. Sihvonen R, Paavola M, Malmivaara A, et al. Arthroscopic partial meniscectomy versus sham surgery for a degenerative meniscal tear. The New England journal of medicine. 2013 Dec 26;369(26):2515. PMID:24369076.

26. Sihvonen R, Paavola M, Malmivaara A, et al. Arthroscopic partial meniscectomy versus placebo surgery for a degenerative meniscus tear: a 2-year follow-up of the randomized controlled trial. Ann Rheum Dis. 2018; 77(2): 188-195. PMID: 28522452.

27. Cardone, DA, Jacobs BC. Meniscal Injury of the Knee. Available on-line. UpToDate, Grayzel J (Ed), UpToDate®, Waltham, MA, Last updated October 18, 2024. Accessed September 16, 2025.

28. Hwang YG, Kwoh CK. The METEOR trial: no rush to repair a torn meniscus. Cleve Clin J Med. 2014; 81(4):226-232. PMID: 24692441.

29. American Academy of Orthopaedic Surgeons (AAOS). Clinical practice guideline on management of anterior cruciate ligament injuries. Rosemont (IL): American Academy of Orthopaedic Surgeons (AAOS); September 5, 2014. Available at: **https://www.aaos.org/globalassets/quality-and-practice-resources/anterior-cruciate-ligament-injuries/anterior-cruciate-ligament-injuries-clinical-practice-guideline-4-24-19.pdf**. Accessed July6, 2026.

30. Pujol N, Colombet P, Cucurulo T, et al. Natural history of partial anterior cruciate ligament tears: A systematic literature review. Orthop Traumatol: Surg. 2012;98(8 Suppl): S160-4. PMID: 23153663.

31. Beaufil P and Hulet C, et al. Clinical practice guidelines for the management of meniscal lesions and isolated lesions of the anterior cruciate ligament of the knee in adults. Orthop Traumatol Surg Res 2009 Oct; 95 (6):437-42. PMID 19747891

32. Abram SGF, Beard DJ, et al. National consensus on the definition, investigation, and classification of meniscal lesions of the knee. Knee. 2018 Oct: 25 (5): 834-840. PMID: 29983330.

33. Abram SGF, Beard DJ, Price AJ, et al. Arthroscopic meniscal surgery: a national society treatment guideline and consensus statement. Bone Joint J. 2019;101-B(6):652-659. PMID: 31154847.

34. Khan M, Evaniew N, Bedi A, et al. Arthroscopic surgery for degenerative tears of the meniscus: a systematic review and meta-analysis. Cmaj. 2014;186(14):1057-64. PMID: 25157057

35. Thorlund JB, Englund M, Christensen R, et al. Patient reported outcomes in patients undergoing arthroscopic partial meniscectomy for traumatic or degenerative meniscal tears: Comparative prospective cohort study. BMJ. 2017;356: j356. PMID: 28153861.

36. Centers for Medicare and Medicaid Services. National Coverage Determination (NCD) for Arthroscopic Lavage and Arthroscopic Debridement for the Osteoarthritic Knee (150.9). 7/11/2004. Available at URL: **https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=285&ncdver=1&bc=AAAAIAAAAAAA&**. Accessed July6, 2026.

37. McAlindon TE, Bannuru RR, Sullivan MC, et al. OARSI guidelines for the non-surgical management of knee osteoarthritis. Osteoarthritis and Cartilage 2014; 22: 363-388. Available online at:. **https://oarsi.org/sites/oarsi/files/docs/2014/non_surgical_treatment_of_knee_oa_march_2014.pdf**. Accessed July6, 2026.

38. National Institute for Health and Care Excellence (NICE). Osteoarthritis: care and management. Clinical guideline (CG177). Published February 12, 2014. Last updated December 11, 2020.

39. National Institute for Health and Care Excellence (NICE). Osteoarthritis in over 16s: diagnosis and management. NICE guideline (NG226). Published October 19, 2022. Available online at: **https://www.nice.org.uk/guidance/ng226**. Accessed July6, 2026.

40. Siemieniuk RAC, Harris IA, Agoritsas T, et al. Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline. Br J Sports Med. 2018: 52(5):313. PMID: 29449218.

41. Devji T, Guyatt GH, Lytvyn L, et al. Application of minimal important differences in degenerative knee disease outcomes: a systematic review and case study to inform BMJ Rapid Recommendations. BMJ Open 2017; 7(5): e015587. PMID: 28495818.

42. Brignardello-Petersen R, Guyatt GH, Buchbinder R, et al. Knee arthroscopy versus conservative management in patient with degenerative knee disease: a systematic review. BMJ Open 2017;7(5): e016114. PMID: 28495819.

43. Sihvonen R, Paavola M, Malmivaara A, et al. Arthroscopic partial meniscectomy for a degenerative meniscus tear: a 5-year follow-up of the placebo-surgery controlled FIDELITY (Finnish Degenerative Meniscus Lesion Study) trial. Br J Sports Med. 2020;54(22):1332-1339. PMID: 32855201.

44. Berg, B, Roos EM, Englund M, et al. Development of osteoarthritis in patients with degenerative meniscal tears treated with exercise therapy or surgery: a randomized controlled trial. Osteoarthritis Cartilage. 2020; 28(7): 897-906. PMID: 32184135.

45. American Academy of Orthopedic Surgeons. Management of Osteoarthritis of the Knee (Non-Arthroplasty). Evidence-based clinical practice guideline August 31, 2021. Available at URL: **https://www.aaos.org/globalassets/quality-and-practice-resources/osteoarthritis-of-the-knee/oak3cpg.pdf**. Accessed July 6, 2026.

46. American Academy of Orthopaedic Surgeons, Management of Anterior Cruciate Ligament Injuries Evidence-Based Clinical Practice Guideline. August 22, 2022, Available at URL: **www.aaos.org/aclcpg**. Accessed July 6, 2026.

47. Kalske R, Kiadaliri A, Sihvonen R, Englund M, et.al, Arthroscopic partial meniscectomy for a degenerative meniscus tear is not cost effective compared with placebo surgery: an economic evaluation based on the FIDELITY trial data. Clin Orthop Relat Res. 2024;482(9):1523-1533. PMID: 38905520.

48. American Academy of Orthopaedic Surgeons. Evidence-based clinical practice guideline. Acute Isolated Meniscal Pathology. June 10, 2024. Available at URL: **https://www.aaos.org/globalassets/quality-and-practice-resources/acute-meniscal-pathology/amp-cpg.pdf**. Accessed July 6, 2026.

49. Pujol N, Giordano AO, Wong SE, et al. The Formal EU-US Meniscus Rehabilitation 2024 Consensus: An ESSKA-AOSSM-AASPT Initiative: Part I-Rehabilitation management after meniscus surgery (meniscectomy, repair and reconstruction). Orthop J Sports Med. 2025; 13(5): 23259671251343088. PMID: 40416991.

50. DuBose M, Taqi M. Hoffa pad impingement syndrome. In: StatPearls. Treasure Island (FL): Stat Pearls Publishing. Last Update: February 22, 2023. Available at URL: **https://www.ncbi.nlm.nih.gov/books/NBK589637/**. Accessed July 20, 2026.

51. Hedeman M, Lemos J, Guerra C, et al, Patellar clunk syndrome: a systematic review of risk factors and treatment. Arthroplast Today. 2026; 5:37:101936. doi: 10.1016/j.artd.2025.101936. PMID: 41551272.

52. Kambhampati SBS, Gollamudi S, Shanmugasundaram S, Josyula VVS. Cyclops lesions of the knee: A narrative review of the literature. Orthop J Sports Med. 2020; 8(8): 2325967120945671. doi: 10.1177/2325967120945671. PMID: 32923503.

History

Date	Comments
07/08/13	New policy. Add to Surgery Section. New policy effective December 1, 2013, follows a 90-day hold for provider notification.
10/17/13	Update Related Policies. Add policy 1.03.501.
02/24/14	Minor update. Clarification made to policy coverage for members under 50 with a history of osteoarthritis which now requires documentation via x-ray; KL4 score criteria as not medically necessary removed from this patient pool for torn meniscus.
07/14/14	Policy rewrite. Removed the word “adults” from title. Added criteria and rationale for intra-articular joint pathology, osteochondral dissecans, meniscus repair, ligament repair, popliteal cysts, synovectomy debridement, drainage and lavage. References 2-9 added.
08/11/14	Interim review. Minor update. Re-ordered policy statements and removed information on medial collateral ligament and lateral collateral ligaments.
09/17/14	Update Related Policies. Add 7.01.550.
12/22/14	Interim update. Removed reference #1.
02/10/15	Annual Review. Statements added indicating a meniscus tear may be repaired at the same time as an ACL repair when the ACL meets medically necessity criteria. Removed

Date	Comments
	all policy statements for pediatric and adolescent. Added Adult to title. Reference 21 added.
03/24/15	Minor update. Add link for ACL with osteoarthritis to the navigational links for policy coverage topics.
03/30/15	Clarification only: "Over age 50" replaced throughout the policy statement with "age 50 and older".
05/27/15	Interim update. Added Chondromalacia patellae diagnosis beside patellar compression syndrome for clarification. Added Meniscus tear coincident with ACL injury, discovered during arthroscopy for ACL to medically necessary statement for ACL reconstruction. Replace reference 9. Remove information only codes: CPT 29885-29887.
09/08/15	Interim Review. Removed KL requirements for meniscus, ACL and PCL. Removed criteria for under age 50 with osteoarthritis. Combined meniscus tear criteria into one policy statement. Added clarification for symptomatic torn plica. Added bullet in ACL policy statement-physically demanding occupation, or an activity level that includes cutting, jumping, and/or pivoting. Changed recommendation for conservative care for ACL from 8 weeks to 2 weeks. Clarified Chondromalacia Patellae statement by adding (when one of the following are met). Clarified Intra-Articular Joint Pathology statement by adding (when one of the following are met).Added the word (all) to PCL statement. Added definitions for Anterior drawer test, Apley test, Lachman test, McMurray test, Patellofemoral pain syndrome, Patellar glide test, Positive pivot shift test, patella tilt test. Added References 5, 19. CPT codes 29887 and 29888 added to policy.
01/12/16	Clarifications only. Added definitions for chondroplasty, microfracture, knee locking, knee giving way. Removed duplicate 8 weeks of conservative care bullet from Meniscal Tear policy statement. Simplified intra-articular joint pathology and removed bullets regarding symptomatic plica; simplified osteochondral defect policy statements.
04/22/16	Clarification. Returned one criterion to ACL which was inadvertently left off in recent publications.
05/19/16	Coding update. Added 29889.
10/11/16	Policy moved into new format; no change to policy statements. Added Prior Authorization Requirements.
01/01/17	Annual Review, approved December 13, 2016. Added clarification to symptomatic acute tear in policy statement. Literature reviewed.
03/01/17	Interim Review, approved February 14, 2017. Clarification made regarding diagnostic imaging in policy section and prior authorization requirements: "Copy of radiologist's report for diagnostic imaging (MRI, CT, etc.) done within the past 12 months prior to surgery that demonstrates diagnosed defect. Imaging must be performed and read by an independent radiologist. If there are discrepancies in the interpretation of the imaging, the radiologist's report will supersede." This is consistent with other policies.
12/21/17	Coding update; removed CPT 29887.

Date	Comments
03/01/18	Annual Review, approved February 27, 2018. Minor edits. Intent of policy statements unchanged. One reference added. Note added that this policy has been revised. Added Surgery Site of Service criteria, which becomes effective June 1, 2018.
04/01/18	Minor update, added Documentation Requirements section.
06/01/18	Minor update; removed note and link to updated policy. Surgery Site of Service criteria becomes effective.
09/01/18	Minor update. Re-added Consideration of Age information; it was inadvertently removed in a previous update.
04/01/19	Annual Review, approved March 19, 2019. Reference 27 added. Minor edits to policy statements along with minor formatting for greater clarity. Intent of policy statements unchanged. Reinstituted "Copy of radiologist's report for diagnostic imaging (MRI, CT, etc.) done within the past 12 months prior to surgery that demonstrates diagnosed defect. Imaging must be performed and read by an independent radiologist. If there are discrepancies in the interpretation of the imaging, the radiologist's report will supersede" previously removed in 2018.
05/01/19	Minor update, clarified Site of Service requirements.
05/10/19	Minor update, removed requirement that imaging must be performed and read by an independent radiologist, as this was inadvertently added back to policy.
04/01/20	Delete policy, approved March 10, 2020. This policy will be deleted effective July 2, 2020, and replaced with InterQual criteria for dates of service on or after July 2, 2020.
07/02/20	Delete policy.
11/01/20	Policy reinstated effective February 5, 2021, approved October 13, 2020. Added not medically necessary statement for knee arthroscopy for partial meniscectomy for degenerative meniscal tear(s) with no associated mechanical symptoms. References added.
05/01/21	Minor update, language clarified under anterior cruciate ligament (ACL) tear section. Policy intent unchanged.
10/01/21	Annual Review, approved September 2, 2021.Policy reviewed. References added. Policy statements unchanged.
09/01/22	Annual Review, approved August 22, 2022. Policy reviewed. References added. Policy statements unchanged except for minor clarifying edits.
10/03/22	Update Related Policies. 1.03.501 – title changed from "Knee Orthoses (Braces), Ankle-Foot-Orthoses, and Knee-Ankle-Foot-Orthoses" to "Custom-made Knee Orthoses (Braces), Ankle-Foot-Orthoses, and Knee-Ankle-Foot-Orthoses"
03/01/23	Interim Review, approved February 14, 2023. Corrected policy criteria for intra-articular joint pathology to state ALL of the following criteria rather than ONE of the following criteria. Other minor edits throughout the policy; policy intent unchanged. Changed the wording from "patient" to "individual" throughout the policy for standardization.

Date	Comments
11/01/23	Annual Review, approved October 23, 2023. Policy reviewed; reference added. Policy statements unchanged.
4/18/24	Minor correction made to MELD Score hyperlink.
11/01/24	Annual Review, approved October 21, 2024. Policy reviewed. Reference added. Policy statements unchanged.
04/01/25	Interim Review, approved March 10, 2025. Note added to ACL tear section to see 7.01.113 Bioengineered Skin and Soft Tissue Substitutes policy for BEAR (bridge-enhanced anterior cruciate ligament repair) implant which may be used in conjunction with anterior cruciate ligament repair.
07/09/25	Minor update made to related policies. Removed 7.01.113 Bioengineered Skin and Soft Tissue Substitutes and replaced with 7.01.582 Bioengineered Skin and Soft Tissue Substitutes.
08/01/25	Interim Review, approved July 8, 2025. Removed Related Policy 11.01.524 Site of Service: Select Surgical Procedures. The following policy changes are effective November 7, 2025, following 90-day provider notification. Added related policy 11.01.525 Site of Service Ambulatory Service Center (ASC) Select Surgical Procedures. Added Site of Service Ambulatory Service Center (ASC) Select Surgical Procedures criteria.
11/07/25	Minor update. Replaced related policy 7.01.78 Osteochondral Autografts in the Treatment of Articular Cartilage Lesions with 7.01.607 Osteochondral Autografts in the Treatment of Articular Cartilage Lesions.
12/01/25	Annual Review, approved November 11, 2025. Policy reviewed, reference added. Added clarifying statement for meniscal tear if aged 50 and older that the imaging "done within 12 months prior to surgery" shows the absence of severe arthritis. Added clarifying edits to intra-articular joint pathology criteria; however, the policy intent was unchanged. Removed rheumatoid arthritis from the conditions for which arthroscopic debridement, drainage, or lavage is considered medically necessary. Removed criteria for arthroscopic excision of popliteal cyst.
12/03/25	Minor correction made to Site of Service Ambulatory Service Center (ASC) Select Surgical Procedures criteria.
01/01/26	Coding update. Minor formatting clarification to call out CPT 29870 does not require site of service review.
04/01/26	Coding update. Removed CPT code 29870. Replaced related policy 2.01.31 Intra-Articular Hyaluronan Injections for Osteoarthritis with 2.01.534 Intra-Articular Hyaluronan Injections for Osteoarthritis. Minor formatting corrections made throughout the policy.
06/01/26	Minor update. Added header to indicate that site of service review does not apply to Indian Health Services (IHS) facilities.

Date	Comments
11/06/26	Minor update to related policy section. Updated policy title 7.01.160 Synthetic Cartilage Implants for Joint Pain to 7.01.160 Cartilage Implants for Joint Pain.
09/01/26	Annual Review, approved August 11, 2026. The following policy changes are effective December 3, 2026, following 90-day provider notification. Policy reviewed, references added and updated. Policy criteria rewritten, reformatted and edited for greater clarity. Added policy statement for knee arthroscopy for a synovectomy (limited procedure) when criteria are met. Added criterion under intra-articular joint pathology indication, "Symptoms of pathological plica have not responded to conservative care measures." Removed criterion that diagnostic imaging be performed in the 12 months prior to the requested surgery.

Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2026 Premera All Rights Reserved.

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