



Kaiser Foundation Health Plan of Washington

Clinical Review Criteria **Knee Magnetic Resonance Imaging (MRI)**

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Criteria

For Medicare Members

This policy does not apply to Medicare members.

For Non-Medicare Members

General principles:

- In general, MRIs are not appropriate for a knee with arthritis
- Require plain x-rays first
- MRI should only be done if surgical intervention is likely to be indicated *AND* there is documentation of concern for additional pathology

[High-End Imaging Site of Care](#) review required for requests being performed in a *hospital-based* imaging department in addition to the criteria below:

- I. KPWA considers magnetic resonance imaging (MRI) studies of the knee medically necessary when *any* of the following criteria is met:

A. Joint anatomy or structural defect evaluation needed, as indicated by **1 or more** of the following:

- Loose body/mechanical symptoms in joint space, suspected and plain film negative
- Synovial pathology, as indicated by **1 or more** of the following:
 - Chronic synovitis secondary to hemarthrosis of hemophilia
 - Intra-articular venous malformation
 - Juvenile idiopathic arthritis with knee involvement, for assessment of joint involvement and treatment
 - Pigmented villonodular synovitis
 - Seronegative spondyloarthropathies (eg, ankylosing spondylitis, psoriatic arthritis) If recommended by Rheumatology
 - Synovial sarcoma
- Worrisome palpable mass, with normal findings on plain x-ray

B. Ligament tear, known or suspected, as indicated by **1 or more** of the following

1. Acute injury occurring with tearing or popping sound and with effusion on exam
2. Inability to bear weight after injury with negative x-rays and high suspicion for internal injury after one week of conservative treatment
3. Conservative treatment is not required prior to MRI if *any* of the following signs on physical exams are positive in comparison to the normal knee:
 - Anterior drawer test

- Lachman test
 - Pivot shift test
 - Posterior drawer test
 - Posterior sag test
 - Valgus stress test
 - Varus stress test
4. Postoperative assessment needed after ligament repair or reconstruction, if suspected graft failure/tear with symptoms of instability (i.e., giving way or buckling, particularly with sudden stops or rotational and cutting maneuvers)
 5. Posttraumatic effusion with negative plain films
 6. Symptoms of instability (i.e., giving way or buckling, particularly with sudden stops or rotational and cutting maneuvers) (with negative plain films)

C. Meniscus Tear/Injury:

Advanced imaging is considered medically necessary following nondiagnostic plain radiographs (and no significant arthritis on x-ray) in **ONE of the following** four scenarios:

1. Evaluation of *acute* knee pain after injury when **EITHER of the following** are present:
 - A. Symptoms and exam findings of locking***
 - B. Symptoms of catching, or instability with **one or more of the following** physical exam findings of meniscal tear:
 - Joint swelling or effusion
 - Positive McMurray, Thessaly or Apley test
 - Joint line tenderness
 - Inability to fully extend the knee
2. Evaluation of *chronic* knee pain in **ONE of the following** scenarios (if patient has no significant arthritis on x-ray):
 - A. Symptoms and exam findings of locking***
 - B. Symptoms of catching, or instability with and has had 4-6 weeks of conservative management, with **one or more of the following** physical exam findings of meniscal tear:
 - Joint swelling or effusion and no arthritis on x-ray
 - Positive McMurray, Thessaly or Apley test
 - Joint line tenderness
 - Inability to fully extend the knee
3. Effusion with acute injury or with subsequent episodes of minor injury or vigorous activity
4. Fractures with high association of meniscal tear (e.g., tibial plateau)

***Persistent true locking of the knee indicative of a torn meniscus or loose body. (True locking is defined as more than a momentary locking of the joint with the knee in a flexed position, as compared to the sensation of momentary "catching" that many individuals experience in extension.)

D. Osteomyelitis/Osteonecrosis

1. Suspected bone infection (i.e., osteomyelitis); *or*
2. Suspected osteochondritis dissecans or suspected osteonecrosis if the clinical picture, including x-rays, is not confirmatory.

E. Cancer or neoplasm evaluation or staging needed, as indicated by 1 or more of the following:

Bone neoplasm (benign or malignant), as indicated by **1 or more** of the following:

- Abnormal finding on plain x-ray or bone scan
- Chondrosarcoma and **1 or more** of the following:
 - Initial staging
 - Monitoring response after treatment completed
 - Post-treatment surveillance for local tumor recurrence; intervals include **1 or more** of the following:
 - Low-grade and intercompartmental: every 6 to 12 months for 2 years, then annually as clinically indicated
 - High-grade (i.e., grade II or III), clear cell, or extra-compartmental: as clinically indicated
 - Current diagnosis or history of cancer located elsewhere and **BOTH** of the following:

- Plain x-ray or bone scan findings indeterminate
 - Unexplained localized bony signs and symptoms (e.g., pain)
 - Ewing sarcoma family of tumors and **1 or more** of the following:
 - Initial staging
 - Monitoring response after treatment completed
 - Post-treatment surveillance for local tumor recurrence; intervals include **1 or more** of the following:
 - Every 2 to 3 months for first 2 years, then decreasing frequency through year 5
 - Annually after 5 years
 - Osteosarcoma and **1 or more** of the following:
 - Initial staging
 - Monitoring response after chemotherapy or radiation therapy
 - Post-treatment surveillance for local tumor recurrence; intervals include 1 or more of the following:
 - Every 3 months for 2 years
 - Every 4 months for year 3
 - Every 6 months for years 4 and 5
 - Annually after 5 years
- II. KPWA considers knee MRI **experimental and investigational** for all other indications, including any of the following circumstances because its effectiveness for indications other than the ones listed above has not been established:
- A. If arthroscopy or ligament reconstruction is definitely planned and the MRI findings are unlikely to change the planned treatment; *or*
 - B. If the clinical picture (i.e., history, physical examination, x-rays, etc.) is diagnostic with high degree of certainty of an isolated torn meniscus or loose body, *or*
 - C. To diagnose or evaluate rheumatoid arthritis or degenerative joint disease.

If requesting this service (*or these services*), please send the following documentation to support medical necessity:

- Last 6 months of clinical notes from requesting provider &/or specialist
- Plain films/reports

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, Kaiser Permanente will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.

Applicable Codes

Considered Medically Necessary when criteria in the applicable policy statements listed

CPT® or HCPCS Codes	Description
73721	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material
73722	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; with contrast material(s)
73723	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material(s), followed by contrast material(s) and further sequences

***Note:** Codes may not be all-inclusive. Deleted codes and codes not in effect at the time of service may not be covered.

****To verify authorization requirements for a specific code by plan type, please use the [Pre-authorization Code Check](#).**

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12/03/2021	12/07/2021 ^{MPC} , 12/06/2022 ^{MPC} , 12/09/2023 ^{MPC} , 05/07/2024 ^{MPC}	12/07/2021

^{MPC} Medical Policy Committee

Revision History	Description
12/07/2021	MPC approved to adopt criteria for Knee MRI for non-Medicare members. Requires 60-day notice, effective date 05/01/2022.