

MRI Foot and Foot Joints Guidelines**DEPARTMENT: Utilization Management Physician Practice Guidelines****EFFECTIVE DATE: 05/08****DATE LAST REVIEWED: 06/21****SOURCES:** Milliman Inc.

<https://acsearch.acr.org/docs/70546/narrative/>
<https://acsearch.acr.org/docs/70546/evidencetable/>
<https://acsearch.acr.org/docs/69424/narrative/>
<https://acsearch.acr.org/docs/69424/evidencetable/>
<https://acsearch.acr.org/list>

RECOMMENDED GUIDELINES:

MRI foot and foot joint is not indicated for foot pain alone. A plain film x-ray of foot and foot joints should be performed prior to MRI.

Indications:

- 1) MRI for unexplained foot pain is indicated when **ANY ONE** of the following is present:
 - a) Persistent pain of unclear etiology with normal plain x-rays.
 - b) Indeterminate lesions on plain x-ray or CT scan.
 - c) Suspected osteochondral injury with normal plain x-ray.
 - d) Focal radiolucency on plain x-ray (suspected or osteochondritis dissecans).
 - e) Bone scan demonstrates well-localized increased uptake.
 - f) Persistent but unexplained foot pain, particularly after trauma.
 - g) Tarsal tunnel syndrome, only when suspicion of space occupying lesions present.
 - h) Suspected osteomyelitis (See osteomyelitis section in this guideline).
 - i) Suspected stress fracture as indicated of **ALL** the following (unenhanced).
 - i) History of overuse or excessive activity.
 - ii) Localized pain.
 - iii) Symptoms persist or recur despite rest.
 - iv) Normal findings on plain x-rays.
 - v) Concerns regarding infection, soft tissue injury or inflammatory process make bone scan suboptimal.
 - j) Suspected muscle, tendon or ligament disorders or tears. (to include LisFranc injury)
 - k) Tarsal Coalition
 - l) Concern for inflammatory arthropathy
 - m) Concern for plantar fasciitis that is resistant to conventional therapy.
- 2) MRI, foot or foot joints, is indicated for Morton Neuroma (Interdigital Neuroma) when **ALL** of the following is present:
 - a) Suspected Morton neuroma: findings **MAY INCLUDE**:
 - i) Pain in **WEB** space, most commonly between the third and fourth digit.
 - ii) Numbness radiating to toes.

- b) Failure of conservative care, treatments **MAY INCLUDE**:
 - i) Orthotics.
 - ii) Elimination of offending shoes.
 - iii) Local steroid injection.
- c) Indeterminate diagnosis of previous procedures done.
- 3) MRI, foot or foot joints, is indicated for malignant or benign bone neoplasms when **ANYONE** of the following are present:
 - a) Abnormal finding on plain x-ray or bone scan.
 - b) Palpable bony abnormality with normal plain x-ray.
 - c) Known diagnosis of cancer located elsewhere **AND ANY ONE** of the following:
 - i) Unexplained localized signs and symptoms.
 - ii) Indeterminate plain x-ray or bone scan.
 - d) Persistent pain of unclear etiology.
 - e) Ewing sarcoma or osteosarcoma and **ANY ONE** of the following:
 - i) Initial staging.
 - ii) Monitoring response after treatment completed.
 - iii) Every 6 months for 2 years, especially for Ewing sarcoma.
- 4) MRI, foot or foot joints, is indicated for suspected osteomyelitis and **ANY ONE** of the following:
 - a) Localized bone pain associated with chills or fever, particularly after trauma or orthopedic surgery.
 - b) Overlying cellulitis that responds poorly to antibiotics.
 - c) Diabetes or severe peripheral vascular disease **AND ANY ONE** of the following:
 - i) Persistent foot pain, even without ulcer present.
 - ii) Persistent or worsening ulcer.
 - d) Focal lesion seen on bone scan.
 - e) Suspected sinus tract infection (enhanced when considering surgery)
- 5) MRI, foot or foot joints, is indicated for soft tissue mass, tumor or other abnormalities for **ANY ONE** of the following:
 - a) Soft tissue mass **AND ANY ONE** of the following:
 - i) Deep or large masses.
 - ii) Masses that cross anatomic boundaries.
 - iii) Concern for effect on adjacent anatomical structures.
 - b) Vascular lesions, particularly in child and **ANY ONE** of the following:
 - i) Growth
 - ii) Change in color of overlying skin
 - iii) Causing pain
 - iv) Progressively enlarging
 - c) Soft tissue sarcoma **AND ANY ONE** of the following:
 - i) Initial staging
 - ii) Within 3 months after treatment completed
 - iii) Post-treatment surveillance, annually for 5 years
 - iv) Abnormal physical findings after treatment completed
 - d) Soft tissue muscle abscess, when performed for planning of biopsy or surgical treatment.