IMAGEN

MSK Knee

Ultrasound Protocol Cheat Sheet

Indications on when to perform an MSK Knee

A diagnostic US (ultrasound) may be appropriate to perform on patients whose clinical profile is consistent with one of the following areas:

- **Pain** (chronic or acute, localized or diffuse)
- **Swelling or Effusion** (joint or soft tissue swelling, suspected bursitis)
- **Tenderness** (localized pain with palpation, suspected soft tissue abnormalities)
- **Trauma or Injury** (suspected ligament, tendon, or muscle tears, contusions)
- **Restricted Range of Motion** (joint stiffness or mechanical locking)
- **Weakness** (loss of strength due to potential muscle or tendon injury)
- **Clicking, Popping, or Snapping Sensation** (indicative of structural abnormalities)
- **Instability or Giving Way** (suggesting ligamentous or tendon involvement)
- **Numbness, Tingling, or Radiating Pain** (possible nerve entrapment)
- **Deformity or Mass** (suspected cysts, lipomas, ganglion cysts, or tumors)
- **Redness or Heat** (suggesting inflammatory arthritis, infection, or bursitis)

Imaging Protocol

The following steps outline the protocol to complete this exam Prior to Patient Arrival: Review the patient chart to obtain history and reason for the exam.

- Image Acquisition: Exam will include a targeted area exam as dictated by the patient's symptom and the order.The necessary views listed below:
    - **Targeted Area:** Area of concern is evaluated in transverse and sagittal planes. Document adequately by labeling in as much detail the area of concern as well as timeline of presence. Pathological findings must be documented in two planes. Below are the images that need to be acquired.
        - B-mode transverse and sagittal planes
        - Color Doppler analysis in transverse and sagittal planes
        - Measurement of any cyst, mass, foreign body, or lesion seen in length, height, and width
        - If pathology is present, document in sagittal and transverse with cine clip labeling superior to inferior or medial to lateral.

-Diagnostic MSK Knee Ultrasound Protocol Cheat Sheet End-

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The Knee exam is broken down into Suprapatellar, Infrapatellar, medial, lateral and posterior.

Suprapatellar:

Image 1: prepatellar bursa sag

Image 2: Quadriceps Femoris, suprapatellar recess in Longitudinal. Scan medial and lateral for tendon entirety, (may need multiple images)

Image 3: Quadriceps Femoris, suprapatellar recess, femoral fatpad in Transverse

Image 4: cartilage space - measure

Infrapatellar:

Image 5-7:Patellar Ligament/Tendon long prox attachment , mid, and distal attachment

Image 8: Hoffa's fat pad long

Image 9-11: Patellar Ligament/Tendon in Transverse. Both attachments and mid.

Medial:

Image 12: EFOV at meniscus

Image 13: Meniscus and MCL in Longitudinal

Image 14: Pes Anserines Complex in Longitudinal

Lateral:

Image 15: EFOV at meniscus

Image 16: LCL and lateral meniscus in longitudinal

Image 17: popliteus tendon trv

Image 18: popliteus tendon sag

Posterior:

Image 19: Gastroc muscles and soleus muscle in transverse

Image 20: Transverse Popliteal fossa

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