

Quick & Simple:

Knee ultrasounds rarely have any use in the diagnosis of acute knee injuries.

Acute knee injuries are a common presentation in the family practice office. Depending on the suspected injury, the most common imaging modalities ordered are X-ray, ultrasound, and MRI. While the exact total cost of imaging is not widely accessible, the cost of each scan includes the technician's time, radiologist's report, and machine use. Thankfully, many acute knee injuries can often be diagnosed clinically without need for further imaging.

Knee ultrasounds can most reliably identify injuries to the external tendons and ligaments of the knee due to the limitation of the ultrasound waves from penetrating bones and thereby assessing deeper structures. This fact may appear confusing, as the radiology reports may comment on the meniscus and even the ACL but with very limited accuracy.

This is where an understanding of the literature becomes important. While some studies may report surprisingly high specificities and sensitivities for evaluation of deep knee structures, they often do not reflect true values for imaging done in the community. From our perspective as clinicians, ultrasound offers a partial and often unreliable evaluation of deep knee structures.

In conclusion:

- Knee ultrasounds are most reliable for evaluations of quadriceps and patellar tendons, MCL, LCL, and bursitis.
- While reliable, these diagnoses should be made clinically and immediate imaging is often not indicated.
- While tempting, at this point, ultrasound does not offer reliable assessments of the meniscus and ACL and should not be ordered routinely for these suspected injuries.
- Given our LHIN resources, knee ultrasounds should rarely be ordered given the cost and minimal impact on prognosis or treatment.

As always, if in doubt, consider contacting your local sport medicine physician for advice regarding which imaging modality is most appropriate.

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