

X-rays: Best Screening Tool in Diagnosing Knee Pain



Knee pain is quite common among Americans 40 years of age and up. It is estimated that 1 in 17 patients visit a healthcare provider each year for knee pain or injuries related to osteoarthritis. As the population continues to age, the prevalence of knee pain also continues to increase.

MRI is often used as a tool to diagnose torn knee ligaments and cartilage and other related problems but a new study shows that plain x-rays may be the best first line screening for knee pain. The study is published in the *Journal of American Academy of Orthopaedic Surgeons* .

Findings suggest that simple x-rays are usually the best diagnostic tool as they reduce both time and cost. Muyibat Adelani, MD, an orthopaedic surgeon with Washington University's Department of Orthopedics and lead author of this study explains that in patients with significant arthritis, MRI findings are less important because it is the amount of arthritis that helps determine the best treatment. That is why it is advisable that patients older than 40 should get a standing x-ray before an MRI for knee pain.

Study researchers examined 100 MRIs of knees from patients 40 years and up. The key findings include:

- The most common diagnoses are osteoarthritis (39 percent), and meniscal tears (29 percent);
- Nearly 1 of 4 MRIs was taken prior to the patient's first having obtained a weight-bearing X-ray; and,
- Only half of those MRIs obtained prior to meeting with an orthopaedic surgeon actually contributed to a patient's diagnosis and treatment for osteoarthritis.

These findings thus suggest that patients should undergo weight-bearing x-rays before an MRI as MRIs may not always be needed. In cases of arthritis, x-rays are more than enough for both diagnosis and treatment plan and are also more cost-effective.

Source: [American Academy of Orthopaedic Surgeons](#)

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