

Literature Review: CLINICAL TESTS FOR MENISCUS LESIONS

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It has been estimated that approximately 27% of all outpatient physical therapy visits are for knee pain.¹ Of the many possible lesions causing pain, one common source is from a meniscal lesion. Recently, Meserve et al² did a meta-analysis summarizing the accuracy of clinical tests for assessing meniscal lesions of the knee. Previous researchers have performed meta-analyses on clinical tests for meniscus tear, but failed to account for the variability and in test sensitivity and specificity due to differences in methodological quality among the studies.³⁻⁵ Because of that, diagnostic accuracy could be skewed. Clinicians should select tests with the highest sensitivity or negative likelihood ratio to rule out meniscal injury, or conversely, rule in meniscal injury with tests having high specificity or positive likelihood ratios.¹ The purpose of this update is to provide a synopsis of what was found in their review.

Eleven studies satisfied the authors criteria of sixty-four total considered for potential review. Joint line tenderness, Apley's, and McMurray's were reviewed based on them being the most common tests utilized. Ege's and Thessaly tests were also evaluated, but the quality of the studies was not good based on small sample sizes. Of note, diagnostic tests findings were interpreted without considering whether the lateral or medial meniscus was torn.

The researchers ultimately found that:

- Joint line tenderness was found to be the superior test in terms of sensitivity, followed by the McMurray's and then Apley's.
- Specificity values were larger with Apley's compared to joint line tenderness and McMurray's.
- Ege's Test and the Thessaly Test,⁶⁻⁷ tests that have either compression with weight bearing or clinician-applied axial rotation, were found to have the strongest diagnostic accuracy, but with smaller samples in the studies.

Based on this review, like any other special test used clinically, a combination of a thorough history along with a physical exam will help the clinician differentially diagnose conditions that are presented to them. As with many other tests used for other pathologies, it appears that using several tests to detect meniscal lesions is supported by the literature.

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5. Solomon DH, Simel DL, Bates DW, et al. The rational clinical examination. Does this patient have a torn meniscus or ligament of the knee? Value of the physical examination. *JAMA.* 2001; 286: 1610-20.
6. Akseki D, Ozcan O, Boya H, et al. A new weight bearing meniscal test and a comparison with McMurray's test and joint line tenderness. *Arthroscopy.* 2004; 20: 951-58.
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