RAPID RESEARCH

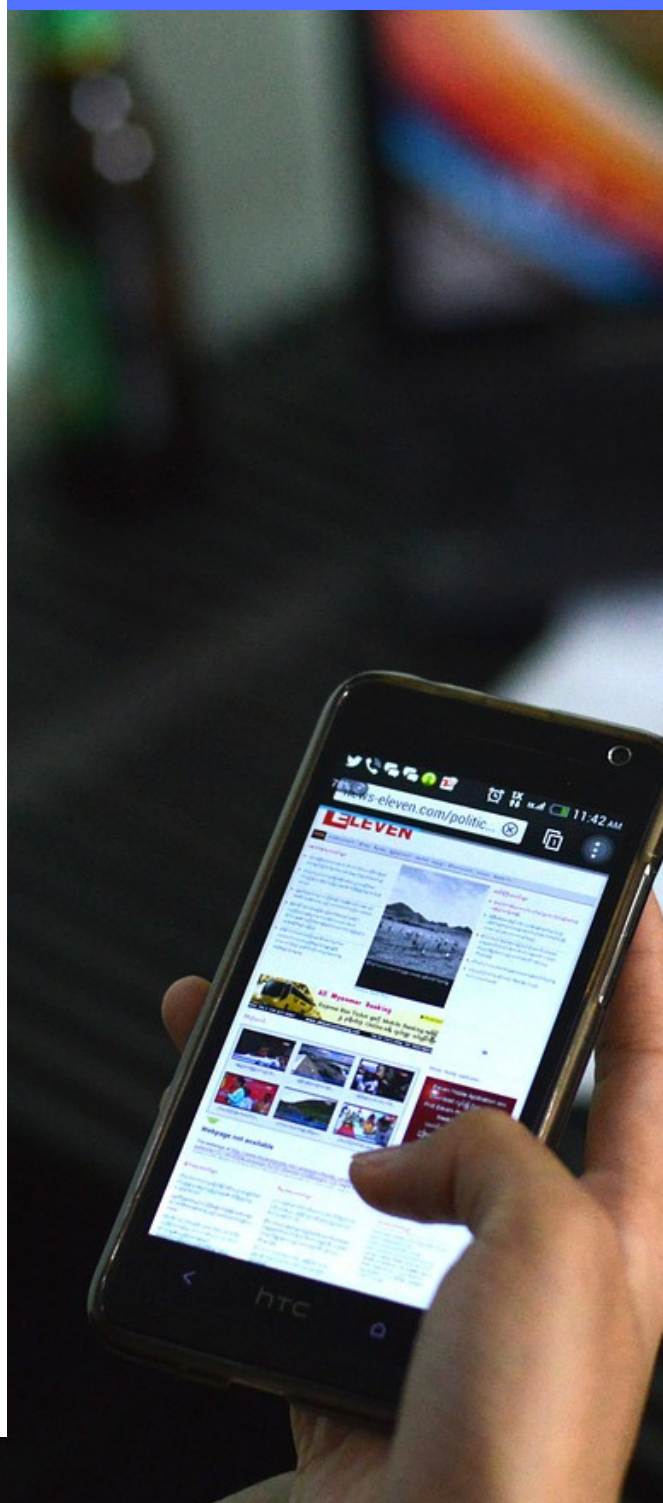
@physicaltherapyresearch

November 2021

Inside This Week:

Tests for Meniscus Tears

- Thessaly vs. Joint Line vs. McMurray
- Accuracy of MRI to Diagnose Meniscus Tears
- Accuracy of Duck Walk Test to Diagnose Meniscus Tears



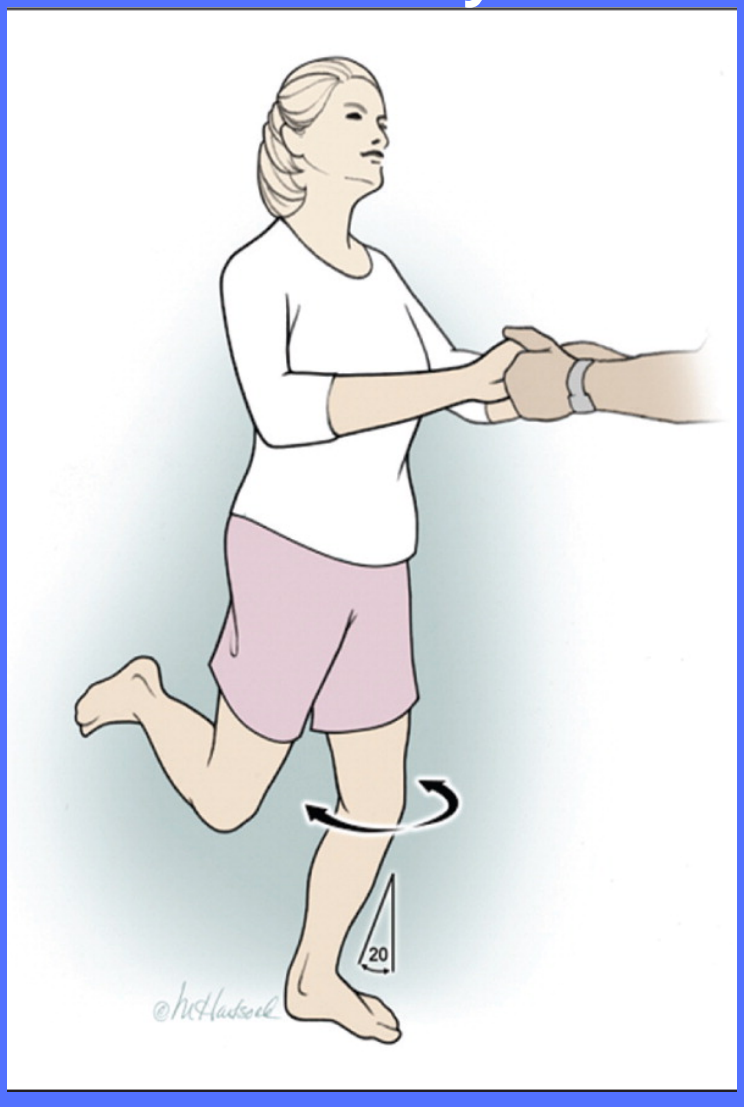
NOVEMBER 2021

THESSALY V. JOINT LINE V. MCMURRAY

Click for Full Text (Shekarchi et al 2020)

This research investigated the accuracy of Thessaly test alone or in combination with other clinical tests to provide a non-invasive means of identifying lesions.

Thessaly



McMurray

KEY FINDINGS

Based on MRI Confirmations:

For Medial Meniscus

Thessaly was the **most sensitive (56.2%).**

McMurray and joint-line tenderness are **more specific (89.1% and 88.0%).**

For Lateral Meniscus

McMurray was the **most sensitive (56.2%)**

All were specific

(McMurray 89.6%, Thessaly 88.4%, joint-line tenderness 90.2%).

Based on Arthroscopy Confirmations:

Thessaly was **most sensitive** for medial meniscus **(76.6%)**

McMurray and joint-line tenderness are **more specific (81.0%, and 81.0%).**

For Lateral Meniscus

Combined tests were **most sensitive (68.8%).**

McMurray test had **highest specificity (83%).**

MAIN TAKEAWAYS

Thessaly is a sensitive clinical test for the diagnosis of medial meniscus tears, and can be used to **screen the general population.**

McMurray and joint-line tenderness are more specific and should be used to **diagnose medial meniscus tears** in patients with the related clinical manifestations.

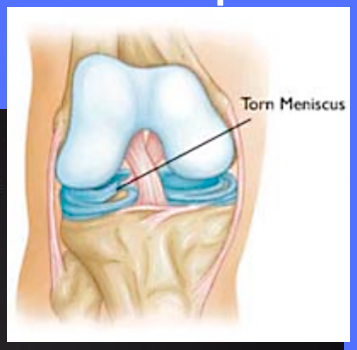
Overall, it is preferred to **use the tests combined**, as they are valuable in the detection of meniscal lesions.

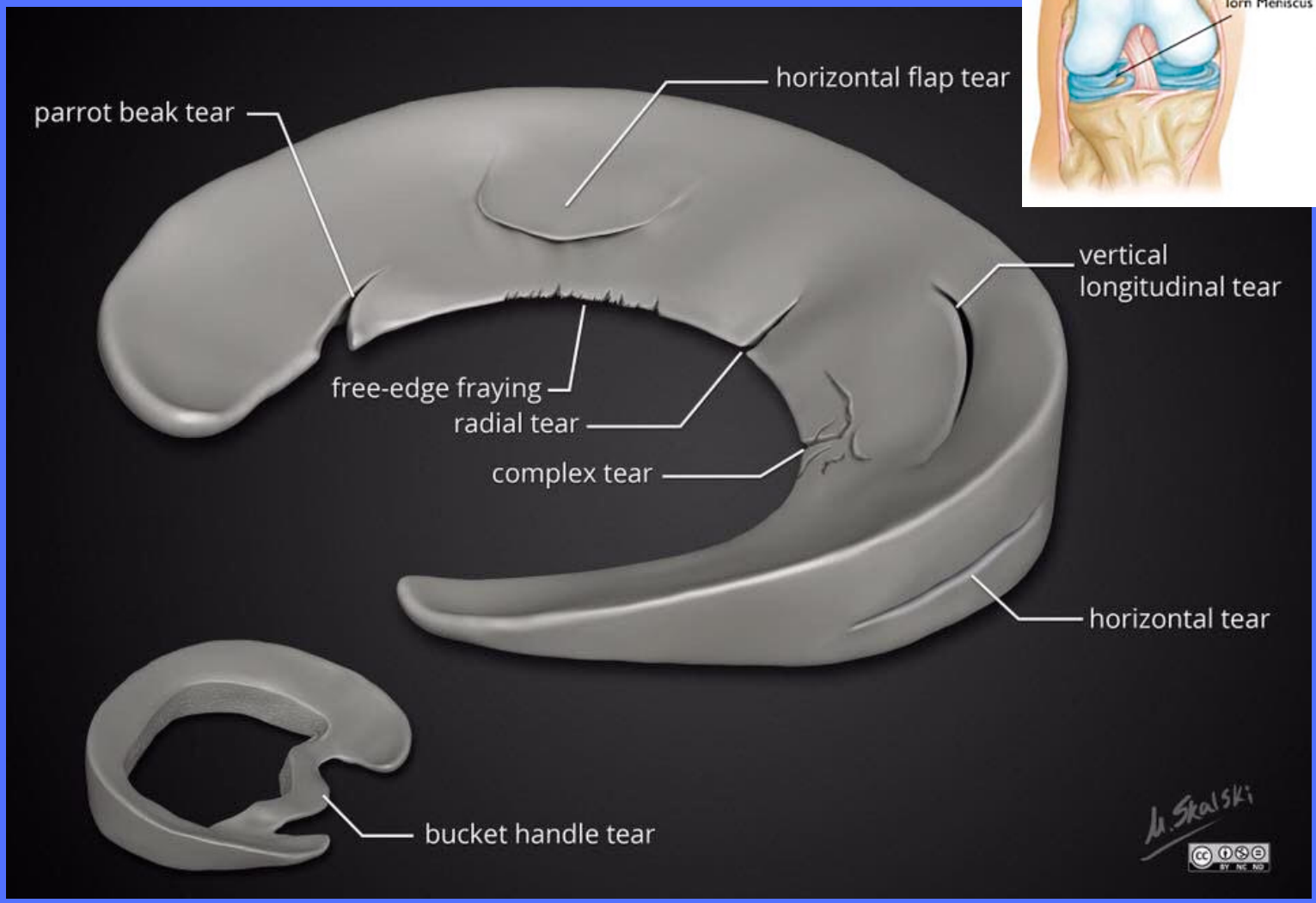
NOVEMBER 2021

ACCURACY OF MRI TO DIAGNOSE MENISCUS TEARS

Click for Full Text (Kim et al. 2021

This research evaluated the diagnostic accuracy of MRI in detecting meniscal tears according to type and location by comparing MRI and arthroscopic findings.





KEY FINDINGS

Pre-op MRI and arthroscopic findings of **544 patients** were reviewed to find **presence, type, and location of meniscus tears.**

Medial Meniscus Tears:
Sensitivity (91.8%)
Specificity (79.9%)

Lateral Meniscus Tears:
Sensitivity (80.8%)
Specificity (85.4%)

Accuracy in ACL-injured group vs. ACL-intact group:
Medial meniscus: 81.7% vs. 88.1%
Lateral meniscus: 72.9% vs. 88.0%.

MAIN TAKEAWAYS

Preoperative MRI **could be used as a diagnostic tool to identify for meniscus tears.**

Pre-op MRIs are **not capable of classifying the type and location of meniscus tears.**

Differences existed in the type and location of meniscus tears between ACL-injured and ACL-intact patients

NOVEMBER 2021

ACCURACY OF DUCK WALK TEST TO DIAGNOSE MENISCUS TEARS

Click for Full Text (Van Der Post et al. 2017)

This research aimed to determine the sensitivity and specificity of the duck walk test for diagnosing a meniscal tear. Also, whether the results are influenced by the location or cause of the tear.

KEY FINDINGS

The test is performed by s**quatting and "waddling" before rising** and is **positive with general joint line pain or painful "clicking"**

136 patients with history of an MRI and duck walk test included

Sensitivity (71%).
Low Specificity (39%).

No difference in sensitivity between medial (67%) & lateral (76%) meniscal tears.

No difference among patients with traumatic tears and in patients with ACL tears.

MAIN TAKEAWAYS

Because of **verification bias,** the actual sensitivity is likely **much lower than the calculated 71%**

The test **did not perform better** with trauma or ACL insufficiency.

The test was **no more effective** in detecting medial than lateral tears.

When used alone, **the duck walk test probably has little value in practice** as a screening test.

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