

## Multifrequency tympanometry could aid diagnosis of Meniere disease

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Multifrequency tympanometry (MFT) could aid the diagnosis of Meniere disease (MD), according to a review published online March 4 in the *Journal of Clinical Medicine*.

Christos Tsilivigkos, from the National and Kapodistrian University of Athens in Greece, and colleagues conducted a systematic literature



review and meta-analysis to examine the role of MFT in the diagnosis of MD. The analysis included seven identified studies that directly compared ears affected by MD to unaffected or control ears.

The researchers found that among 282 ears affected by MD, 197 unaffected ears in patients with MD, and 420 ears in healthy controls, there were no statistically significant differences between the groups for resonant frequency. In affected ears, the pure tone audiometry average of the lower frequencies was significantly greater than that seen in unaffected ears. For a conductance tympanogram at 2 kHz, there was statistically significantly greater G width of 2 kHz observed in the affected ears versus either unaffected or control ears. Control ears had a statistically significant lesser G width of 2 kHz compared with the other two groups.

"MFT, and specifically G width at 2 kHz, could be an important tool in the <u>diagnosis</u> of MD," the authors write. "Further studies should be conducted to clarify the definitive role of MFT in MD, the mechanism that underlies these measurements, and the diagnostic accuracy of this test."

**More information:** Christos Tsilivigkos et al, Can Multifrequency Tympanometry Be Used in the Diagnosis of Meniere's Disease? A Systematic Review and Meta-Analysis, *Journal of Clinical Medicine* (2024). DOI: 10.3390/jcm13051476

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