

HNO. 1992 Nov;40(11):422-8.

**[Evoked otoacoustic emissions in adults. Criteria for evaluation in clinical use]**

[Article in German]

**Uppenkamp S, Neumann J, Aurbach G, Kollmeier B.**

Drittes Physikalisches Institut.

The work here presents the first part of a prospective study regarding the clinical use of evoked otoacoustic emissions (EOAE) in adults. Sixty subjects with normal hearing and 160 patients suffering from cochlear hearing loss were tested. The results were used to develop and optimize analysis criteria for the emissions, based on their physical properties. A short-time Fourier analysis was performed so that the EOAE intensity in time and frequency domains could be observed simultaneously. A comparison of this data with the individual thresholds of hearing showed the importance of the EOAE level. However, the bandwidth of the EOAE demonstrated an even steeper transition between normal and hearing-impaired subjects. These findings suggest that this bandwidth is a better criterion for the detection of an EOAE. On the other hand, both parameters correlated weakly with the hearing threshold and the differences between subjects were very large. A prediction of hearing loss based on EOAE results is impossible with the wideband click stimulation used here.

PMID: 1473980 [PubMed - indexed for MEDLINE]