

Comparison of OAE and ABR

	OAE	ABR
What else might the test be called?	OAE, DPOAE, TEOAE, Emissions, Otoacoustic Emissions	ABR, BAER AABR, ABAer, BER
Preparation Time	Minimal preparation time is needed. There is no need to scrub the baby for electrode placement	Need to scrub baby for electrode placement
Test time	Fast, especially for a quiet baby. Under ideal conditions, actual test time can be as little as 6-10 seconds. Total time for baby preparation, testing, and documentation is usually 10-20 minutes	A little slower than OAE. Under ideal conditions, actual test time can be 3-10 minutes. Total time for baby preparation, testing, and documentation is usually 15-30 minutes
Referral rate	7-8% for one-stage, but as little as 1% when babies are re-screened prior to discharge	Average initial referral rate of 4%
Cost of disposables	Less than ABR. Anywhere from \$0.20 /baby to \$1.00/baby	Generally more than OAE. Anywhere from \$7.50/baby to \$11.00/baby
Susceptibility to outer and middle ear status	More susceptible than ABR to middle ear status – the presence of middle ear fluid or vernix in the ear canal may interfere with testing.	Less susceptible than OAE to middle ear status
Effects of environmental noise	Need quiet test environment - both the room and baby	Not as susceptible to room noise, however electrical interference can be a problem, and myogenic noise can interfere, especially with an active baby
False negatives?	May miss auditory dysynchrony (rare) and reverse slope losses	May miss very high frequency losses, reverse slope losses, and precipitously sloping losses
What does the test measure?	Measures the function of the outer hair cells in the cochlea	Measures the function of the Auditory (VIII) Nerve
What frequencies does the test measure?	Responses may be obtained from 500 – 5000 Hz, but due to noise the best responses are noted above 1000-1500 Hz	Provides information for the mid-high frequencies (1500-4000 Hz)