



Audiometric Threshold

vs.

DPOAE Level**

- Audiometric threshold (dB HL) as a function of DPOAE level (dB SPL)
- Data for a different f2 shown in each panel
- Solid line = 50th percentile (median)
- Shaded areas = interquartile range (25th to 75th percentile)
- Audiometric threshold decreases as DPOAE level increases
- Although variable (note that the shaded area only covers the middle 50% of the distribution at each audiometric threshold), relation exists for audiometric thresholds from -5 to about 50-60 dB HL
- No relation above 55 dB HL, related to the range of levels over which outer hair cells operate

**Gorga, Michael P.; Neely, Stephen T.; Ohlrich, Brenda; Hoover, Brenda; Redner, Joelle; Peters, Jo From Laboratory to Clinic: A Large Scale Study of Distortion Product Otoacoustic Emissions in Ears with Normal Hearing and Ears with Hearing Loss. *Ear & Hearing*. 18(6):440-455, December 1997.

Actual slide taken from Dr Gorga's 2007 ASHA Instructional Course in distortion product otoacoustic emissions. titled: Distortion product otoacoustic emissions: Introduction Michael P. Gorga, Ph.D. Boys Town National Research Hospital Work supported by the NIH

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