There are relatively few data concerning the influence of stimulus level and hearing status (normal or sensorineural hearing loss, SNHL) on the latencies of stimulus frequency otoacoustic emissions (SFOAE) and distortion product otoacoustic emissions (DPOAE) latencies. In the low limit of stimulus levels, the linear correlation between stimulus level and latency represents a model for the frequency-tuning characteristic in normal ears [1]. However, quasilinear dependence [2] predicts that the correlation between the stimulus level and latency should be a function of stimulus level and hearing status. In the high limit of stimulus levels, the correlation between stimulus level and latency should be a function of stimulus level and hearing status. In the high limit of stimulus levels, the correlation between stimulus level and latency should be a function of stimulus level and hearing status.

A relationship between emission levels would predict behavioral measurements of frequency tuning in normal-hearing humans [8]. A relationship between emission levels would predict behavioral measurements of frequency tuning in normal-hearing humans [8]. The SPL in the lower- and upper-frequency bands (top arrows) also decreased with increasing stimulus levels, their latencies often were less than those in normal ears. DPOAE latencies were significantly larger in normal compared to impaired ears. Laterality variation with level and hearing status in the present report suggests that transient-evoked SFOAEs provide a rapid, sensitive, and response-dependent measure of hearing status.

Acknowledgements

Work supported by the Department of Veteran Affairs Rehabilitation Research and Development (OO1 RR006462) and the NIH (R01 DC03784).