

Clinical Tidbits

...for Physicians

iPod Use Affects Ability to Hear Very High Pitches

A recent study shows long term use of music players and/or listening at high sound levels causing hearing damage in college students at the very high pitch range.

Human hearing is sensitive to sounds as low as 20Hz to as high as 20,000Hz in normal ears. However, clinical tests of hearing rarely test beyond 8000Hz. Extended high frequency hearing exists beyond 8000Hz in normal hearing ears, and may contribute to speech understanding, particularly in background noise. College students (87 total participants) were tested in the extended high frequency ranges, and the results were compared to self-reported listening levels and duration of use. There was a statistically significant correlation between participants who reported long-term use (5 years or more) and/or listening at high levels, and reduced extended high frequency hearing (10,00-16,000Hz). The thresholds were worse by 3-6 dB in these extended high frequency ranges. Small but potentially significant hearing damage in the extended high frequencies is induced by long-term or high listening level use of music players.

1. Le Prell, et al. Extended High-Frequency Thresholds in College Students: Effects of Music Player Use and Other Recreational Noise. *Journal of the American Academy of Audiology*, 24: 725-739 (2013)



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