

Amplification & Communication Research Laboratory

II. Wind noise characteristics and reduction strategies



Wind noise can be debilitating for hearing device users. Dr. Chung has been systematically studying wind noise patterns in hearing aids with different characteristics (e.g., microphone modes, styles, vent options) to derive wind noise reduction strategies. These strategies can be adopted in hearing devices to enhance user performances.

Select Publication on the Topic

- Chung, K.** (2020). [Strategies to reduce wind noise interference in hearing devices](#). Hearing Journal, 73(7), 10, 12, 13.
- Chung, K.** (2013). [Effects of venting on wind noise levels measured at the ear drum](#). Ear & Hearing, 34(4), 470-481.
- Chung, K.,** Nelson, LA, & Teske, M. (2012). [Noise reduction technologies implemented in head-worn preprocessors for improving cochlear implant performance in reverberant noise fields](#). Hearing Research, 291(1-2), 41-51.
- Chung, K.** (2012). [Comparisons of spectral characteristics of wind noise between omnidirectional and directional microphones](#). Journal of Acoustical Society of America, 131(6), 4508-4517.
- Chung, K.** (2012). [Wind noise in hearing aids: II. Effects of microphone directionality](#). International Journal of Audiology, 51(1), 29-42.
- Chung, K.** (2012). [Wind noise in hearing aids: I. Effects of wide dynamic range compression and modulation-based noise reduction algorithms](#). International Journal of Audiology, 51(1), 16-28.
- Chung, K.,** & McKibben, N. (2011). [Microphone Directionality, Pre-Emphasis Filter, and Wind Noise in Cochlear Implants](#). Journal of American Academy of Audiology, 22(9), 586-600.
- Chung, K.,** McKibben, N., & Mongeau, L. (2010). [Wind noise in hearing aids with directional and omnidirectional microphones: polar characteristics of custom hearing aids](#). Journal of Acoustical Society of America, 127(4), 2529-2542.
- Chung, K.,** Mongeau, L., & McKibben, N. (2009). [Wind noise in hearing aids with directional and omnidirectional microphones: polar characteristics of behind-the-ear hearing aids](#). Journal of Acoustical Society of America, 125(4):2243-59.