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**Effects of noise type and location on binaural benefit in**  
**asymmetric directional fittings**

Benjamin Hornsby

Vanderbilt University, Room 8310 Medical Center East, South Tower, 1215 21st Ave. South, Nashville, TN  
37232-8242, USA

The benefits of bilateral directional processing for improving speech understanding in noise are well documented. However, these fittings are not universally accepted by hearing aid wearers. Research suggests that an asymmetric fitting (omnidirectional in one ear/directional in the other) may provide benefit in noise comparable to symmetric directional fittings (directional in both ears). This study evaluated factors that may affect the relative benefit provided by an asymmetric directional fitting. Specific factors evaluated included noise configuration, reverberation and noise type. Twenty individuals with mild-moderate SNHL participated. Aided speech understanding in cafeteria babble was assessed in bilateral omnidirectional and directional modes and in an asymmetric mode in four (4) different noise configurations. Measures were made in both an anechoic and reverberant (RT ~620 ms). In a second experiment the effects of noise type were evaluated by comparing performance in symmetric and asymmetric modes in both steady state noise and cafeteria babble. Results suggest that noise configuration has a significant effect on the relative benefit provided by asymmetric fittings. No significant differences due to noise type were observed. Individual differences in bilateral directional benefit also appear to have a significant effect on the reduction in benefit resulting from an asymmetric fitting.