

Critical Review:
How Effective are Asymmetrical Hearing Aid Fittings for Comprehension of Speech in Noise?

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and speech clarity in each noise condition and hearing aid configuration directly after each test condition.

in both a directional and omnidirectional mode. Other candidates would be people who cannot afford automatic programmable hearing instruments but would not be able to appropriately monitor their environment to effectively use manually switchable hearing instruments. This population may include people in the early stages of dementia or mental disability. Also, individuals who may not have the physical dexterity to push the program button on the hearing aid or do not feel technically savvy enough to effectively utilize the remote control may also be candidates for asymmetrically fitted hearing instruments. Some individuals may feel that pressing either the program controller or button on their hearing aid brings unwanted attention to their hearing instrument from other people, plus has them incessantly cognizant of the fact that they are wearing hearing aids. Perhaps the candidacy for asymmetric fittings would increase further if costs of asymmetrically fitted hearing instruments were made more affordable, due to the evident decrease in technology in comparison to hearing instruments with numerous programs and polar plot configurations. Although there are many individuals who may benefit from an asymmetric hearing instrument fitting, more research is needed to ensure patient satisfaction with asymmetric fittings.

Further research, both objective and subjective, should be carried out to make certain comfort, sound quality, and localization are all comparable to traditional hearing instrument fittings. Future research should be done with blinding and sufficient adaptation time to strengthen the results of the study. In addition, perhaps a study should be done to see if children, who are traditionally fitted with only omnidirectional processing, could benefit from asymmetric hearing instrument fittings.

References

- Cord, M.T., Walden, B.E., Surr, R.K., and A.B. Dittberner. (2007). Field evaluation of an asymmetric directional microphone fitting. *J. Am. Acad. Audiol.* 18, 245-256
- Hornsby, B.W.Y., Ricketts, T.A. (2007). Effects of noise source configuration on directional benefit using symmetric and asymmetric directional hearing aid fittings. *Ear & Hearing.* 28, 177-185
- Mackenzie, E., Lutman, M.E. (2005). Speech recognition and comfort using hearing instruments with adaptive directional characteristics in asymmetric listening conditions. *Ear and Hearing.* 26, 669-679