Canadian Audiologist
The Official Publication of the Canadian Academy of Audiology

Response Modifying Earhooks for Special Populations

Published November 12th, 2025

Mead Killon, PhD

> Mead Killion, and Donald Wilson
> Audecibel, 34(4), 28-30, 1985

SOMETHING ABOUT MEAD

"Response-Modifying Earhooks for Special Fitting Problems" appeared in Audecibel in the fall of 1985 and dovetails off of his previous article the year earlier in Hearing Instruments about a prototype hearing aid that could address low-frequency hearing loss but with an open mold. In the previous article, the prototype hearing aid has 75 mm of tubing placed in a behind-the-ear shell. In this article, Mead Killion and Donald Wilson (who was also important in the development of the prototype hearing aid) describes three new types of earhooks that can be used with conventional behind-the-ear hearing aids. Personally, for me, the KBASS earhook was the most important clinically. I can now fit clients with chronic ear infections with a non-occluding open ear and still provide up to 40 dB of low-frequency insertion gain at 250 Hz and 500 Hz. I personally used this earhook until the mid-1990s to help decide whether this innovation would be sufficient or whether a person would need a Bone Anchored Hearing Aid (BAHA). Mead listens to front-line clinicians – one only needs to look at the Acknowledgements section "A well-argued phone call from Roy Sullivan supplied part of the impetus to try again on the KBASS earhook". (Incidentally, Roy Sullivan is the father of the transcranial CROS hearing aid).

SUMMARY

The term KBASS stands for Killion-Berlin Bass Amplified unobstructed Sound hearing aid—a bit of a stretch, but I always just assumed it stood for Killion Bass amplifying earhook. Mead was able to, using computer simulations and a few experiments, replace 75 mm of tubing length, one damper, and two filter chambers with very narrow diameter tubing of a short length and provide an earhook in an non-occluding configuration that could be used with any power hearing aid-typically 20 dB was lost from the hearing aid specification but one could still obtain up to 40 dB of low frequency insertion gain with an open hearing aid fitting. In this article, Mead and Wilson also describe earhooks for any behind-the-ear hearing aid that could create an amplification notch at 2000 Hz ("2-kHz notch-filter" earhook), and a *very* "high-pass" earhook that would provide no amplification below 3000 Hz.

Annotated by: Marshall Chasin