

Letters continued from p 10

Mead Killion Comments on LACE Aural Rehab Program

Dear Editor: I read the May 11 *Hearing Review* news article on LACE ("Neurotone Inc Launches LACE Online, a Web-based Aural Rehabilitation Program"). Over the years, I have collected with interest published evidence that LACE is effective. The following four reports show a consistent pattern of positive results when using LACE:

- Jennifer Henderson-Sabes and Robert Sweetow (2012).¹ Using 3,441 subjects, the study found those with 8 dB SNR loss gained 3-4 dB improvement; those with 17 dB SNR loss gained 6 dB. It should be noted that about 20% of hearing aid wearers have an estimated 8 dB or worse loss on QuickSIN testing.
- Song et al (2012).² A study conducted at Northwestern University's Kraus Lab found that subjects with 8 dB SNR loss gained about a 3 dB improvement.
- Sandra Vanderhoff (2013, personal communication). A study with 13 participants found those with 8 dB SNR

loss gained about 3 dB; those with 17 dB SNR loss gained about 6 dB.

- Olson, Preminger and Shinn (2013).³ Using LACE-DVD, new hearing aid users with 8 dB SNR loss gained an estimated 3.8 dB improvement after 4 weeks. Note: Experienced users gained only 1.9 dB after 4 weeks.

A reasonable analysis of those four reports is that people with an 8 dB SNR loss can be expected to obtain a 3-4 dB reduction in loss after the 20 half-hour training sessions of LACE.

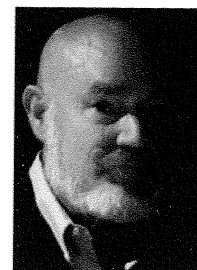
The importance of these results has increased as more and more small BTE open-fit hearing aids are being used. A Kelley and Beegle (2015) Capstone project at Northwestern University measured a single directional-microphone hearing aid from each of the Big-6 companies in "R-SPACE" and played the recordings back to subjects. With open fitting, no hearing aid provided a statistically significant improvement in noise over the unaided open ear. Four of the six hearing aids showed poorer intelligibility

than the open-ear condition, but this was not statistically significant (SEM for 12 Ss and 6 lists was 0.6 dB SNR). The anecdotal reports that most hearing aids are now open-ear fittings seem to make the improvement from programs such as LACE relatively more important.

Although these comments involve LACE, that is only because I have looked with interest at LACE statistics over the years. From platform presentations I have heard, Read My Quips and SPATS are also excellent programs. I have no commercial interest in any of these, only admiration for their respective developments.

— Mead C. Killion, PhD, Etymotic Research,
Elk Grove Village, Ill

For references, see online Letters at hearingreview.com



Mead C. Killion, PhD