

Neuroaudiology Newsletter

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Treating the Problem, not the Symptoms

Auditory processing disorder is a hearing problem that goes further than poor sound awareness, yet it often gets grouped into the same category and treated with hearing aids (or sometimes not treated at all in the cases of normal hearing sensitivity). However, managing symptoms with a device only helps with

AUDIOLOGY TRIVIA

ANSWERS ON THE LAST PAGE

- 1) The auditory efferent pathway is located in the caudal brainstem and is named after this famous neuroanatomist.
a) Galambos, b) Ramussen, c) Morest, d) Warr
- 2) In cochlear physiology, cortilymph has an electrical charge of how many mv?
a) +80, b) 0, c) +10, d) -70
- 3) The right ear advantage is most commonly associated with what test procedure?
a) ECog, b) MLR, c) Filtered Speech, d) Dichotic listening

audibility and does not target where the actual problems are happening, the brain. Research is continuing to emerge on how auditory training can be crucial for the patient with auditory difficulties that are not resolved with just amplification. One clinician who specializes in auditory processing describes this problem with a computer analogy. The ear is the hardware needed for awareness, but the brain is the software needed for discrimination, identification, and comprehension of speech. Angela Loucks Alexander, AuD, CCC-A is this clinician, who is also the founder of the Auditory Processing Institute. Dr. Alexander provides auditory processing evaluations and training to children and adults in addition to training audiologists and speech language pathologists on how to provide APD services themselves.

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Treating the Problem, not the Symptoms cont...

Dr. Angela Alexander (pictured right) recently gave a TEDxTauranga talk that is 18 incredible minutes of exactly why treating the problem is essential to a better life. After sitting down to virtually meet Dr. Alexander, it is clear that she is a woman on a mission to empower patients with the tools they need to improve their auditory deficits and bring awareness to all healthcare providers on the reality of APD; it is a real, diagnosable, and treatable problem.



The therapy she provides (and trains providers to use) includes in-person, online, and on-demand course options. Inspired and mentored by Jack Katz himself (pictured below with Dr. Alexander), Dr. Alexander has been treating auditory processing difficulties for over 15 years. This woman on a mission hasn't stopped with being a clinician, giving TEDx talks and directing an entire institute, she also hosts a podcast, Between Two Ears, and created an online, searchable map for patients to find help in their area.

With more clinicians focusing on treating the problem at the level of the brain, we may find ourselves in a world where diagnosing and treating APD isn't something to run away from but rather a needed skill in all hearing care providers toolbox.

Thank you, Dr. Alexander for all of your important work!



TEDx Talk: Escaping the Hidden Prison of Auditory Processing Disorder

<https://www.youtube.com/watch?v=Ls34Jk7AXu0>

For more information on the Auditory Processing Institute, or to learn about providing APD services to your patients, go to www.APDsupport.com

CENTRAL AUDITORY PROCESSING DISORDERS CORNER



Topic: Non-word-based Central Auditory Tests

One of the problems facing word-based central auditory tests are language barriers. Though recently many countries have developed their own versions of word-based central tests, this factor remains a problem in many countries regarding the utility of these types of tests. Therefore, tests that do not employ words, numbers, etc. have a certain inherent attractiveness in terms of potential broad-based application. One of these tests free of word stimuli is the gaps in noise (GIN; Musiek et al., 2005). This procedure is primarily a test of temporal resolution and has been shown to be highly sensitive and specific to disorders of the central auditory nervous system. This test has been applied in many countries with differing languages with highly similar positive results. GIN norms have been collected and published for several languages including Hindi, Portuguese, Cantonese, Korean and of course English. The average ages in these studies ranged from 10 to 42 years. The range of GIN thresholds (A.th.) were from 4.5 to 4.97 msec. ! This small variance argues for striking consistency of the GIN procedure. These findings also argue for the capacity of the GIN for clinical comparison across countries and languages. Clinicians need to be aware of this important advantage afforded by the GIN and other test procedures that do not depend on verbal stimuli. These comments are not intended to degrade the use of word-based central auditory tests as they are indeed critical in the evaluation of central auditory disorders. However, audiologists do need to be aware of the advantages of all types of test procedures to be optimally efficient.

CAPD Corner Suggested Readings

- Filippini, R., Schochat, E., Wong, B., & Musiek, F. (1 July 2019). The GIN Test: A Meta-analysis on its Neuro-diagnostic Value. *Journal of the American Academy of Audiology*, 30(2), 147-157.
- Davidson, A., Musiek, F., & Marrone, N. (2021). Investigating the role of auditory processing abilities in hearing aid outcomes among older adults. *Journal of the American Academy of Audiology*, 32(7).

2021 American Speech-Language Hearing Association Convention

The 2021 ASHA Convention is taking place in Washington, DC from November 18-20th. This hybrid (in-person and virtual sessions) event involves Master Classes, Oral Seminars, Technical Research and Clinical Sessions, and Poster sessions, all of which offer continuing education credits.

One poster of particular interest is titled, “Hearing Aid Technology Settings and Speech in Noise Difficulties,” and is authored by Alyssa Davidson, AuD, PhD, CCC-A (editor of this newsletter), Pam Souza, PhD, CCC-A, FAAA and Nicole Marrone, PhD, CCC-A. This work was awarded the Meritorious Poster for receiving the highest ratings from Topic Committee reviewers across both professional education and research categories.

This digital poster session will take place on Friday, November 19 with a live chat from 12:30-1:30pm (6211L).

Hearing Review

In the November issue of the Hearing Review, Frank Musiek is interviewed on Neuro-Audiology with comments from Jim Jerger.

The origin, development, and application of this emerging area of audiology is discussed.

Be on the look out to read about these insights!



AUDIOLOGY TRIVIA ANSWERS

- 1) Ramussen (B) is the famous neuroanatomist.
- 2) Cortilymph has an electrical charge of (B) 0 mv.
- 3) The right ear advantage is most commonly associated with (D) dichotic listening.