

NeuroAudiology Newsletter

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Over the Counter Hearing Aids: Overview

AUDIOLOGY TRIVIA

ANSWERS ON LAST PAGE

1) Front and center in the news has been an auditory disorder incurred by a senatorial candidate in PA. What is the disorder?

a) Noise induced hearing loss, b) Auditory processing disorder, c) Tinnitus, d) Otosclerosis

2) What is considered the largest auditory nuclei in the auditory brainstem pathway?

a) Cochlear nucleus, b) Inferior colliculus, c) Superior olivary complex, d) Medial geniculate body

3) What was the publication date for the NU6 word list?

a) 1958, b) 1972, c) 1966, d) 1976

Over the Counter (OTC) hearing aids are now a part of the hearing healthcare model. Like any treatment/management option, there are pros and cons. It is likely that this delivery model will change, to some degree, as manufacturers and consumers engage with the product, but a few current takeaways are highlighted:

- OTC hearing aids now have an established category by the FDA that are designed to manage mild-to-moderate hearing loss in adults.
- To get an FDA-regulated OTC hearing aid, you will not need a hearing exam, prescription, or hearing clinic to fit the device.
- They are estimated to be on average \$1,600 and are available in retail stores and online.
- Some manufacturers will offer remote audiologist support and adjustments.
- There are two main classifications for the OTC devices. One that is more advanced and involves a hearing care professional and one that is more basic and follows a self-fitting model.
- They do not require a return policy.

NeuroAudiology/CAPD Corner



Topic: Why Pattern Testing?

Author: Frank Musiek

Over many years, audiologists have asked, “Why did Marilyn Pinheiro and I select patterns for a test procedure?” Well to start, the idea was totally Marilyn’s! But in working with her, I have learned and derived rationales for the selection of patterns (frequency/pitch & duration) as central auditory tests. These briefly explained rationales may be useful to those using these tests for basic explanations to patients and other professionals. First, the pattern tests were provided impetus from the classic animal studies by Neff, Butler, and Diamond around 1960. They showed that cats with auditory cortex ablations could not accurately respond to different patterns-hence a rationale for using a test like it for humans. A second reason for selecting patterns, is that the brain uses patterns of electrical signals for interpretation of external acoustic stimuli. At the level of the brain, even running speech is a series of electrical patterns. Therefore, it seemed reasonable to try to determine how well the auditory system handled various acoustic patterns. The third and final reason I will mention (though there are others), is that non-speech tests are of value for balance in a central auditory battery and are somewhat divorced from the contaminating issues of speech tests.

CAPD Corner Suggested Reading

- Butler, R. A., Diamond, I.T., & Neff, W.D. (1957). Role of auditory cortex in discrimination of changes in frequency. *Journal of Neurophysiology*, 20(1), 108-120.
- Musiek, F. E. & Chermak, G. D. (1994). Three commonly asked questions about central auditory processing disorders: Assessment. *American Journal of Audiology*, 3(3), 23-27.

Recent Article of Interest

Be on the lookout for an upcoming article in a special issue of *Seminars in Hearing* by Frank Musiek and Jane Baran. *Neuroaudiological Considerations for the Auditory Brainstem Response and Middle Latency Response Revisited: Back to the Future*, reveals how much of audiology has prematurely and inappropriately decreased their diagnostic use of Auditory Brainstem Response and Middle Latency Response over the past 20 years. This in turn, has resulted in over referral rates for expensive imaging studies and lack of application to certain audiological populations.

HHTM Pathways Society Monthly Articles

<https://hearinghealthmatters.org/pathways/>

(June): **The short increment sensitivity index (SISI): An auditory discrimination application?** F. Musiek

(August): **Gap Detection: The Past, Present and Future.** C. Niemczak

Upcoming Auditory Conferences

ASHA Convention: November 17-19, 2022

7th International Conference on Auditory Cortex: September 3-7, 2022

2nd World Congress on Otology, Rhinology, & Laryngology: Sep. 19-20, 2022

Association for Research in Otolaryngology: February 11-15, 2023

American Auditory Society: March 2-4, 2023

American Academy of Audiology: April 19-22, 2023

Congress of the European Federation of Auditory Societies: May 3-6, 2023

Acoustical Society of America: May 8-12, 2023

AUDIOLOGY TRIVIA ANSWERS

- 1) (B) An auditory processing disorder was incurred by the PA senatorial candidate.
- 2) The largest auditory nuclei is (B) the inferior colliculus.
- 3) The publication year of the NU6 was (C) 1966.

PAST NEWSLETTERS: All past newsletters can be found at: musiek.faculty.arizona.edu