

Multi-Speaker Access Technology **RESULTS**

Douglas L. Beck Au.D.
Executive Director of Academic Sciences
Oticon Inc.
Somerset, NJ

Multi Speaker Access Technology (MSAT) was designed and implemented to supplant standard directional microphones (DM) and digital noise reduction (DNR) technologies (Beck & Le Goff, 2016). Since the introduction of MSAT in Oticon Opn™ (2016) multiple publications have reported various measures comparing MSAT (implemented in Oticon Opn) to other technologies. The results demonstrate clinical performance superiority, as well as increased wearer satisfaction and enjoyment.

In this article, we will review and examine the results of recent publications to demonstrate the breadth of Oticon Opn's performance and wearer experience.

Beck and Le Goff (2017) reported a protocol in which 25 listeners attempted to understand speech in noise using Oticon Opn, as compared to two other major manufacturers' best directionality and narrow band (beam forming) directionality technologies. Beck and Le Goff reported narrow band directionality and Oticon Opn MSAT were equivalent while listening to speech-in-noise when speech sounds were located directly in front of the listener. However, when the primary speaker unpredictably spoke from +/- 60 degrees (left or right) from the center, Oticon Opn allowed statistically significant improvements over all other technologies with regard to the ability to understand speech in noise and demonstrated improved word recognition.

Beck and Porath (2017) reported their review of the first 700 consumer response cards obtained from wearers of Oticon Opn. Of note, eighty-one percent of respondents were 61 years and older and the vast

majority of participants streamed sound to their Oticon Opn hearing aids. Further, the most recent MarkeTrak IX (MT9, 2015) survey revealed the combined satisfaction rates ("satisfied" and "very satisfied") for users of modern hearing aids was eighty-one percent. Beck and Porath reported that among users of Oticon Opn, the satisfaction rate was ninety-five percent and the clear majority of those (70%) were "very satisfied." Thus indicating older adults wearing Oticon Opn report higher satisfaction rates than those generally attributable to modern hearing aids, and indicating older adults can readily adapt to newer technologies and, when fitted with Oticon Opn, the majority stream phones and music to their Oticon Opn hearing aids.

Chasin (2017) reported two groups of experienced hearing aid wearers; one group was composed of ten musicians and the other group of ten were non-musicians. All participants wore Oticon Opn and older technologies for many weeks. Chasin reported Oticon Opn provided improved naturalness and clarity for both groups while listening to music and both groups reported speech cues were easier to hear, listening effort in noisy locations was reduced, and the sound quality of Oticon Opn was more pleasant.

MSAT was designed to supplant standard directional microphones (DM) and digital noise reduction (DNR) technologies. As reviewed above, overall satisfaction, ease of streaming, improved naturalness and clarity, listening preferences, improved speech-in-noise results and better word recognition scores have been documented using Oticon Opn.

REFERENCES:

- Beck, DL. & Le Goff, N. (2016): A Paradigm Shift in Hearing Aid Technology. Hearing Review. June. <http://www.hearingreview.com/2016/05/paradigm-shift-hearing-aid-technology/>
- Beck, DL. & Le Goff, N (2017): Speech In Noise Test Results for Oticon Opn. Hearing Review. September, 2017. <http://www.hearingreview.com/2017/08/speech-noise-test-results-oticon-opn/>
- Beck, DL. & Porath, M (2017): Consumer Responses to the Oticon Opn Hearing Aid. January. <http://www.hearingreview.com/2017/01/consumer-responses-oticon-opn-hearing-aid/>
- Chasin, M. (2017): A Novel Technique to Improve Amplified Sound Quality for Both Music and Speech. Hearing Review. July. <http://www.hearingreview.com/2017/07/novel-technique-improve-amplified-sound-quality-music-speech/>
- Beck DL, Goff NL (2018) Contemporary Hearing Aid Amplification: Issues and Outcomes in 2018. J Otolaryngol ENT Res 10(1): 00303. DOI: 10.15406/joentr.2018.10.00303