

HEARING SOLUTIONS SIG Thursday, January 14, 2016 3:00 p.m. - CyberCenter Annex Activity Center

HYPERSOUND

HEARING SOLUTIONS

Presented by

Dr. Brian Taylor, HyperSound Senior Director of Clinical Affairs, Turtle Beach, CA

Dr. Tim Stroup, HyperSound Regional Sales Manager, Houston, TX





"HYPERSOUND" hearing solutions

HEAR EVERY WORD"

Who is Brian Taylor?

- 25 years of clinical and business experience
- Senior Director, Clinical Affairs, Hypersound
- Adjunct Professor, A.T. Still Univ.
- Editor, Audiology Practices
- Editor, HHTM Hearing News



How HyperSound Technology Works



When sound is directional, it travels along a specific path with minimal dispersion. Think of it in terms of light: a traditional loudspeaker is like a bare light bulb, radiating sound in all directions around the room. Directional audio is like a flashlight, emitting sound in a highly controlled, narrow beam. Solutions currently on the market vary in their level of audio directivity, with parametric (ultrasonic) loudspeakers, such as HyperSound, being the most precise.

HyperSound produces an immersive 3-D effect, similar to wearing headphones.

The effect is completely immersive, almost like wearing headphones. With one step a listener can enter or exit a zone of fully intelligible sound, experiencing a difference in aural perception as abrupt as if they'd flipped on a power switch. Designers can use parametric speakers to project a sound beam to a precisely targeted location, creating a private listening zone in a public place.

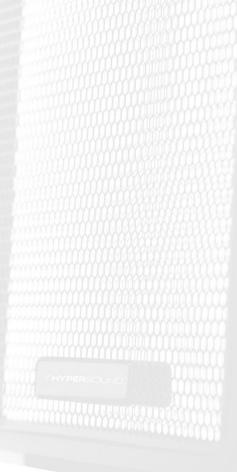
"The ability to target audio directly to guests in front of our product kiosks provides an immersive experience that has been very popular at the Microsoft Experience Center. HyperSound's innovative virtual reality audio is a tremendous value-add for retailers wanting to create a personal sound environment on the sales floor."





Age-related hearing loss:

- Prevalence
- Consequences
- Treatment Options





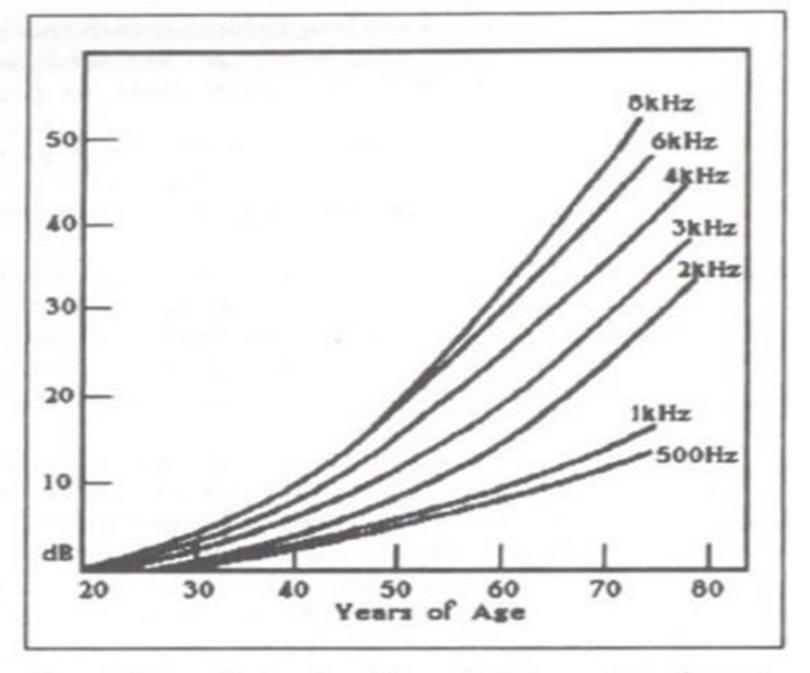


1. Hearing loss doubles per decade of age, starting at age 40

2. Over two-thirds of Americans aged 70 and older have a clinically significant hearing loss

3. About 20% of those with hearing loss possess hearing aids

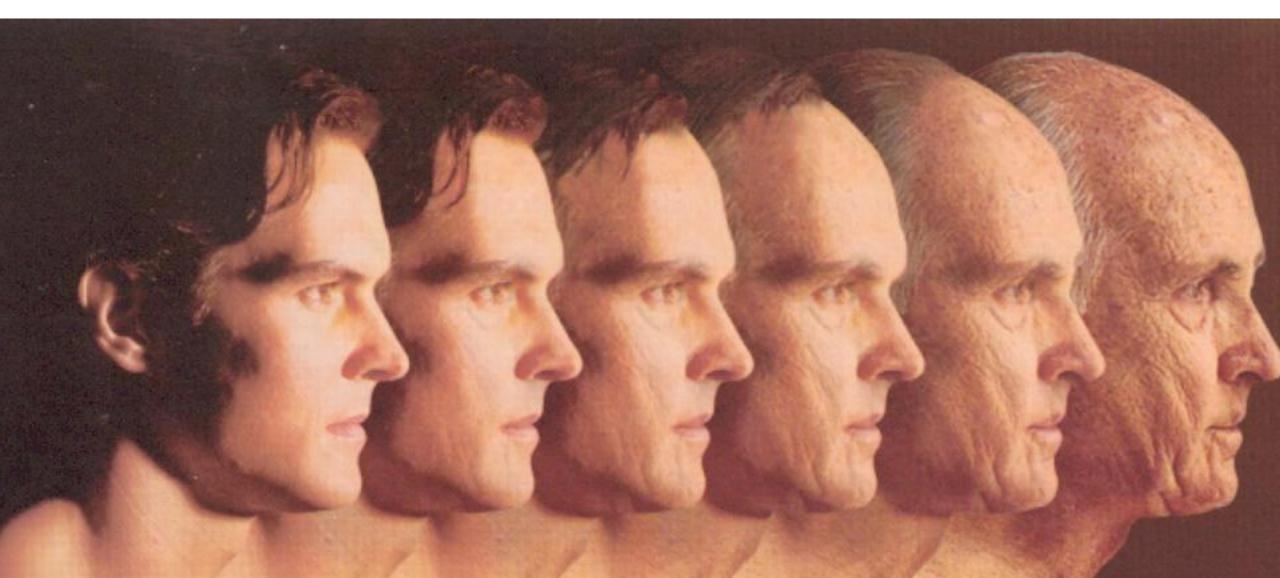




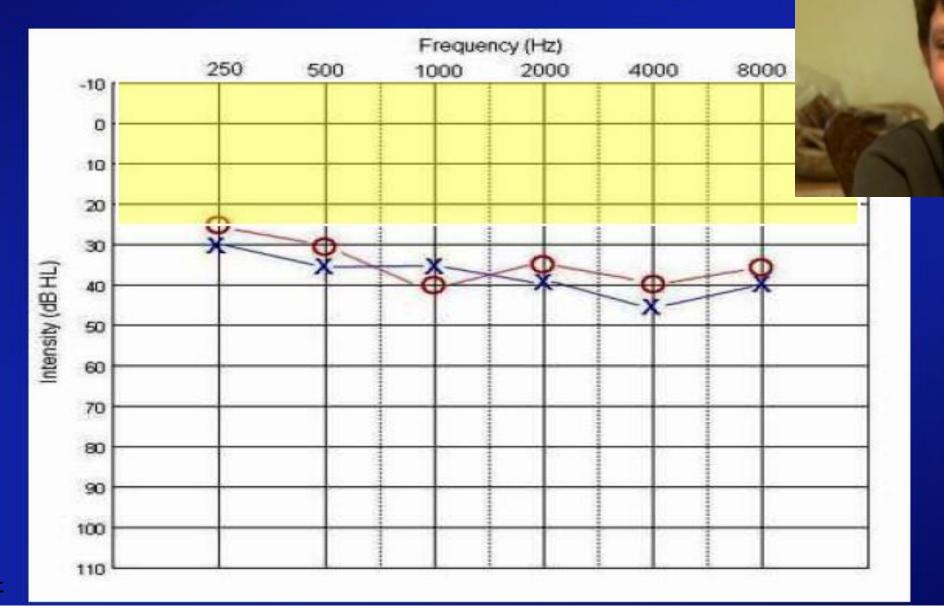
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Figure 1 Average hearing loss with age. High frequencies suffer most, thus affecting speech intelligibility.

"Hearing is Normal for Your Age"

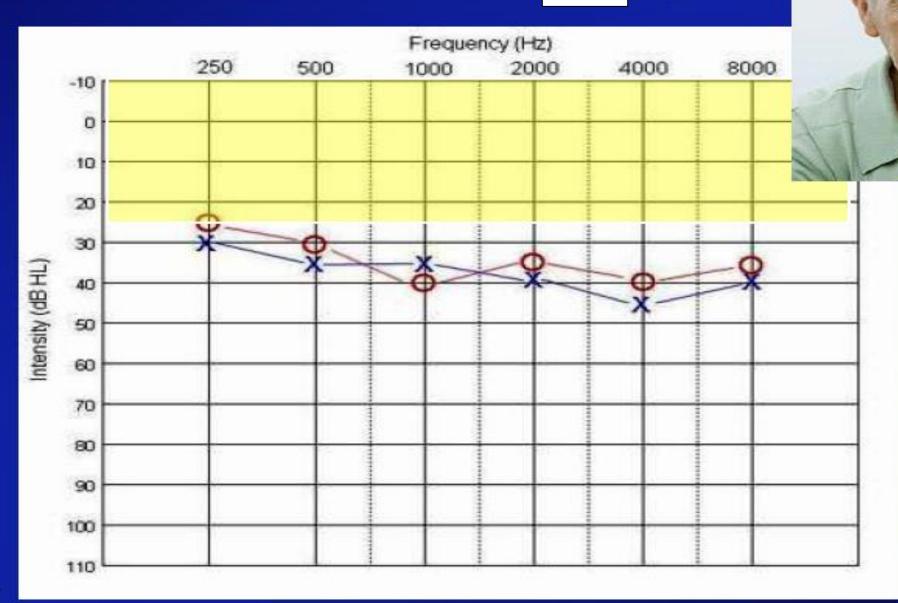


John Smith, 12 y.o.



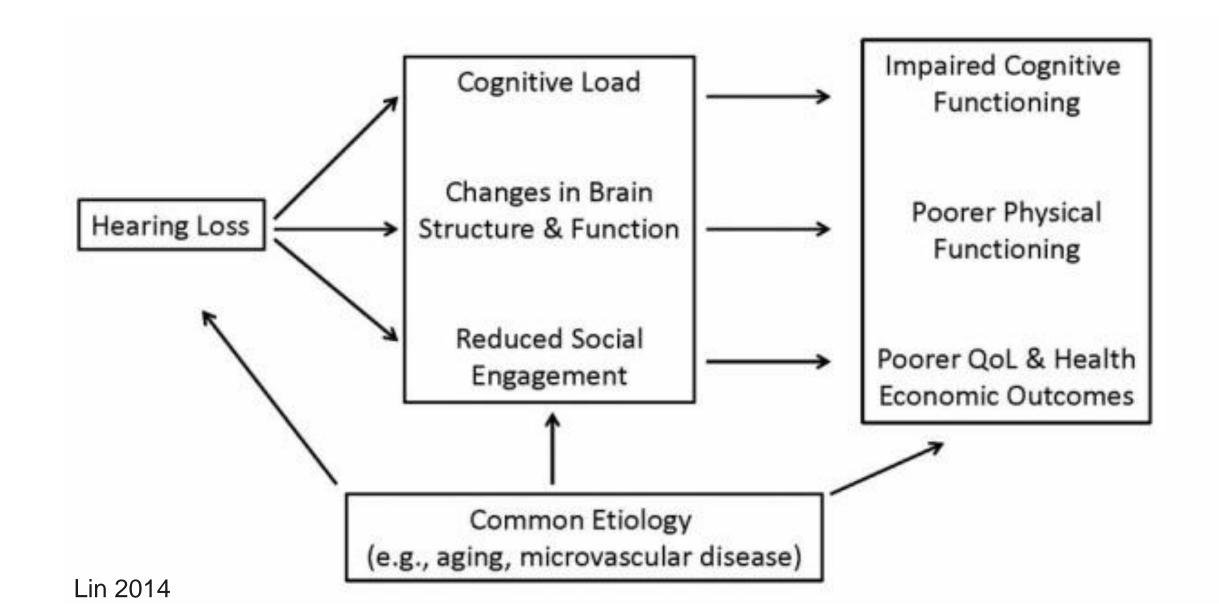
Lin, 2014

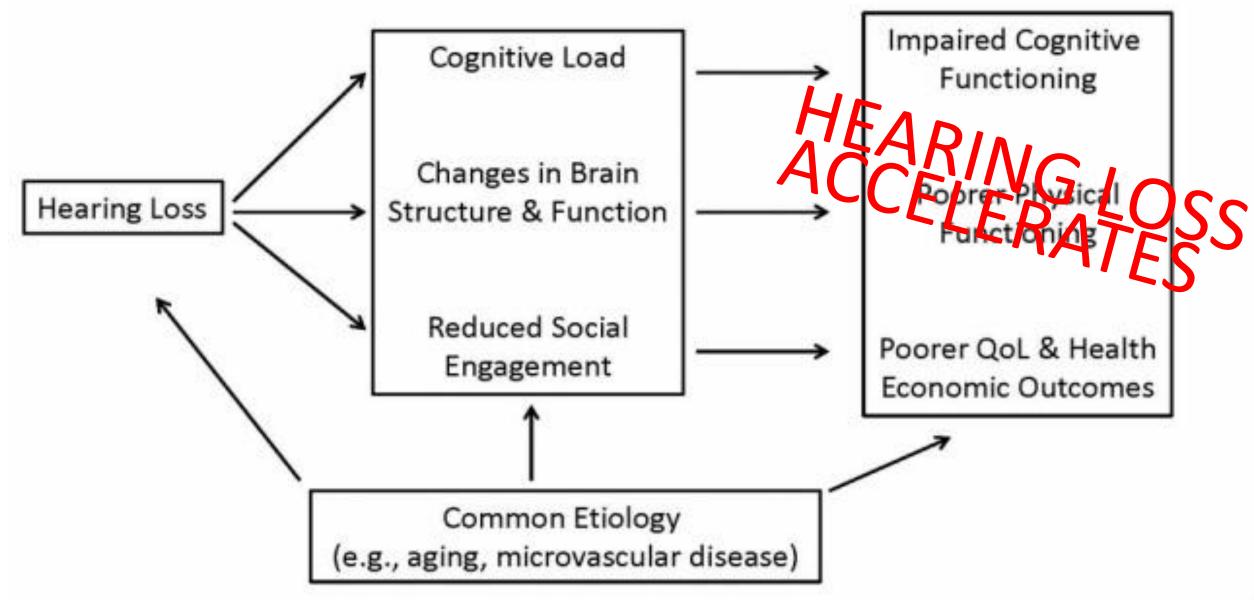
John Smith, 72 y.o.



Lin, 2014

Interconnectedness





Lin 2014

Age-related Hearing Loss: Not a Benign Condition

- Social Isolation
- Increased Hospitalization
- Declines in Physical Functioning
- Increasingly Likely to Fall
- Higher Likelihood of Early Death
- Associated with Cognitive Decline









The Spectrum of Hearing Solutions

Non Customizable Solutions		Customizable Solutions		
At-Home Listening Devices (ALD)	Ear or Body Worn Devices (Hearables)	Directed Audio (Hypersound)	Daily Wear Devices (Multiple Levels of Technology)	Extended Wear & Implantable Devices
<u>Advantages</u>				
Low cost	Low cost, mild losses only	Maximum performance for home audio (#1 leisure activity)	Use in all listening situa- tions. Multiple price points and technology levels	Special purpose only

Hearing Test with Tones Speech in Noise Testing Communication Needs Assessment Cognitive Screening "Shared Decision Making"



HyperSound Clear[™] 500P brings you and your patients a new category of hearing



Complementary offering for people already wearing hearing aids who would like a better TV experience

Gateway solution for people who are not yet ready to wear a hearing aid

Wow factor will attract new, younger patients

HyperSound Clear[™] 500P transforms the TV experience for people with hearing



Directional 3D sound designed to improve the TV listening experience

Immersive sound delivers clarity, speech intelligibility and the richness of sound that they have been missing

Spotlight of sound allows patients to experience the benefit of directed audio without disturbing others

Finally, a premium solution designed to help overcome one of the largest hearing challenges







61% of adults between 54 to 66 report difficulty following Conversations in noise (radio, TV, Average American watches 5 hours of TV each day, 7 hours for people 65+.

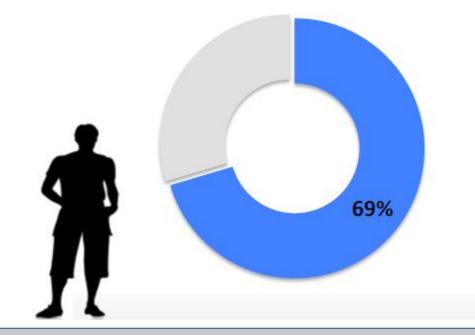
Personal listening devices are isolating. They are neither personalized, high quality or clinically

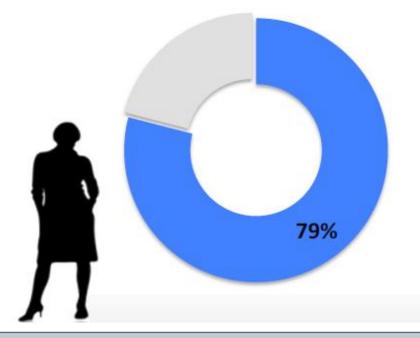
relevant.

Source: Hannula S, Bogt R, Hajamina k (2011) Self-reported hearing problems among older adults: prevalence and comparison to measured hearing impairment. *J Am Acad Audiol* 22(8):550–559 ; Nielsen 2014

HyperSound Clear[™] 500P is clinically proven

HyperSound was clinically tested with 58 patients who had mild to moderate hearing loss across two hearing clinics





69% rated the audio experience with HyperSound as very good to excellent **79%** reported marked or tremendous improvement of **speech intelligibility** with HyperSound Clear[™] Virtual Reality Audio by HyperSound[®]

HyperSound is a breakthrough technology that offers retailers, systems integrators, and other organizations the ability to create immersive sound zones without bleed.

Key Advantages:

- Beams audio to intended individuals only
- Enables multiple audio zones
- Creates immersive, engaging experiences
- Increases dwell time
- Improves advertising (or informational messaging) effectiveness
- Boosts likelihood of intended behavior



HEAR EVERY WORD

Introducing the first-of-its-kind directed audio solution for individuals with hearing loss. As indicated by clinical research*, HyperSound® speakers improve sound clarity and speech intelligibility for individuals with hearing loss. Through innovative directed audio technology, HyperSound Clear" offers a fundamentally new way to deliver sound, and has the potential to revolutionize the home listening experience for individuals with hearing loss and their families.