



# RESEARCH EVALUATION: UNDERSTANDING PATIENT SATISFACTION WITH NEUROTECHNOLOGY™

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## Family Hearing Center

*Hearing & Brain Centers*

[www.FamilyHearingAidCenter.com](http://www.FamilyHearingAidCenter.com)

# Research Report: Summary

## Understanding Patient Satisfaction with NeuroTechnology™

### Perspective

Transformative hearing loss treatment options have recently been made available to patients suffering from the impacts of hearing loss. This NeuroTechnology™ is the first hearing loss treatment option to offer the benefits of an enhanced clarity surround sound experience, with noise-canceling features.

### Volume-Enhancing Technology: Limitations

Traditional hearing loss treatment options (i.e. hearing aids) are designed to provide amplification that overcomes a deficit in hearing. This technology, often referred to as 'Volume Enhancing', provides a predetermined amount of amplification (volume) based on the results of a hearing test. This technology has significant limitations. 'Volume Enhancing' hearing aids can provide increased hearing in specific situations, and is typically limited to acceptable performance in one-on-one conversations and in environments with no (or very limited) background noise and interference.

The most significant limitation of volume enhancing technology is the inability to focus on speech and reduce background noise in complex listening environments. The traditional approach to reducing background noise is with 'Directional Microphones'. This essentially means that whenever noise was detected (or the user would push a button to activate the 'noise setting') the side and rear facing microphone would essentially shut off - making any speech from the sides or behind barely audible. The disadvantage to this common method of noise reduction is obvious - the only person the listener could hear would be the person directly across from them. This effect is referred to as 'tunnel' of hearing and is illustrated in Figure 1.

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Nationally Recognized Speaker, Trainer, and Researcher  
Research Associate at Massachusetts Eye and Ear Infirmary  
His publications and research cited over 500 times



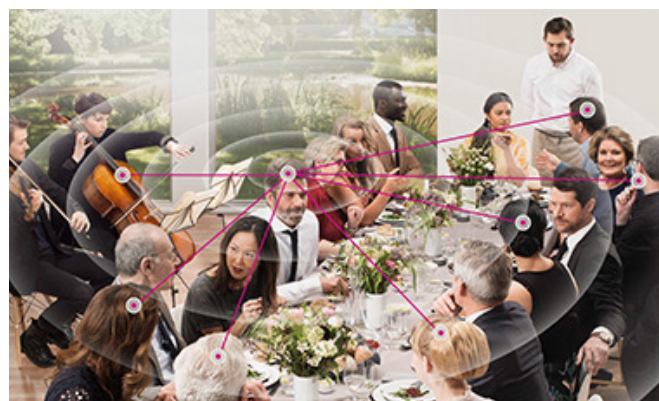
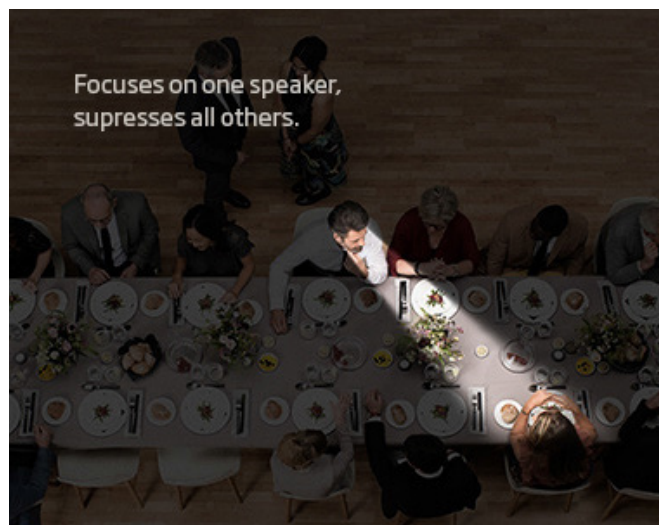
# NeuroTechnology™: Clarity-Enhancing with Surround Sound and Noise Cancellation:

Newly developed hearing loss treatment options have made a significant breakthrough in treating the symptoms of hearing loss, not just the hearing loss! The most common symptoms of hearing loss (as reported by patients) are: 1) I can hear that somebody is speaking, but I can't understand every word, and 2) I do okay hearing in one-on-one conversation, but I have a lot of difficulty following the conversation when there is any background noise. These symptoms are the consequence of deprived auditory input to the brain and reduced auditory processing. Newly advanced NeuroTechnology™ was designed to treat hearing loss and directly address these symptoms by using the science of BrainHearing™ to improve auditory processing in people with hearing loss.

## The three features of NeuroTechnology™ are:

**Enhanced Clarity:** Restoring clarity in individuals with hearing loss allows the listener access to difficult-to-hear portions of speech, for example, the 'sh', 's', 't', etc. Traditional hearing aids are not able to accurately reproduce these sounds – making the listening experience artificial (or 'mechanical'). With the patented 'soft-speech' booster and access of sounds across the entire spectrum of speech, the listener no longer has to worry about not hearing their grandchildren / spouse / co-workers.

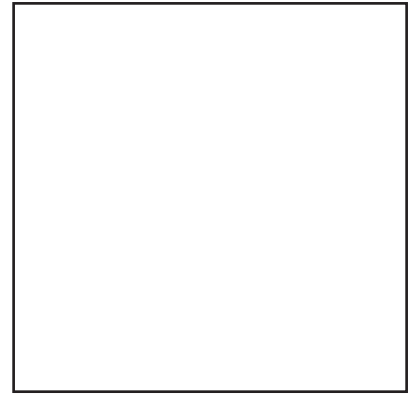
**Surround Sound:** Sound comes at us from all directions. NeuroTechnology™ is designed to accurately locate sound in space from all directions. This feature allows the listener to pinpoint the location of sound and provide his/her brain with an accurate 'auditory image' of the world around them. Traditional volume-enhancing hearing aids did not offer the listener auditory cues of depth and height of approaching sound, thus often leaving the listener confused about the location of the source of sounds in the environment. The Surround Sound feature provides the listener with a more 'natural' listening experience in all environments... from nature walks to crowded parties!



Patient satisfaction with traditional 'volume enhancing' hearing aids is, on average, 75%.



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