



NEWS FROM AVA HEARING CENTER

5344 Plainfield NE, Suite 4
Grand Rapids, Michigan 49525
Phone 616-365-1979

Neuromonics Tinnitus Treatment Study Published in ENT Journal

Editor: A study published in 'ENT Journal' documents the effectiveness of the Neuromonics Tinnitus Treatment program. Here's the story from the folks at Neuromonics.

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Neuromonics Inc has announced the publication of the first clinical study evaluating the Neuromonics Tinnitus Treatment's effectiveness compared to relevant control groups. Published in the June 15 issue of ENT Journal, the study demonstrates that patients receiving Neuromonics Tinnitus Treatment reported significantly greater improvements in tinnitus disturbance than those receiving an equivalent rehabilitation and counseling program with broadband noise acoustic stimulus or no acoustic stimulation. Broadband noise, a traditional approach designed to "mask" the tinnitus, did not significantly improve tinnitus disturbance compared to the counseling-only group. Only the Neuromonics Tinnitus Treatment demonstrated significant improvements over time, according to the report.

The study's 50 patients had clinically significant tinnitus, a condition commonly characterized by ringing in the ears. They were randomly assigned to treatment groups. The primary measure for clinical benefit was the Tinnitus Reaction Questionnaire (TRQ), a self-report measure of tinnitus-related disturbance and impact on quality of life. Six-month mean TRQ improvements for patients receiving Neuromonics was 66%, as compared to broadband stimulation or no acoustic stimulation, which were 22% and 15%, respectively.

"The study further validates the Neuromonics Tinnitus Treatment's effectiveness for this widespread and devastating condition," says Peter Hanley, PhD, executive vice president of Neuromonics and study co-author. "Because Neuromonics is assessed relative to appropriate controls, which differ only by the nature of the acoustic stimulus, this data confirms the efficacy of the Neuromonics treatment's customized neural stimulus."

The Neuromonics Tinnitus Treatment delivers a prescribed acoustic neural stimulus, customized for each patient's individual audiological profile, and delivered within specially processed music. The stimulus is designed to provide relief and relaxation in the initial phase of treatment, and then progressively over a period of several months, to facilitate desensitization to the tinnitus. In this way, the therapy is said to help the brain filter out the tinnitus sound, so that it no longer intrudes on the patient's conscious attention, and no longer has a disturbing impact on quality of life. By targeting the condition's underlying neurological basis, the treatment path may offer enhanced effectiveness for patients compared to alternatives such as tinnitus maskers or hearing aids.

Key results reported by the study include:

- Significant clinical success, defined as the percent of patients reporting a 40% or greater improvement in TRQ score, was 86% for the Neuromonics group, compared to 47% and 23% for broadband noise and no sound stimulation groups, respectively.
- Based on patient self-reported ratings, the Neuromonics group had significantly greater and more consistent improvements in sleep and relaxation compared to the other two groups. A total of 86% of the Neuromonics group reported sizeable relaxation benefits.
- Minimum masking levels, a measure of tinnitus perception, was significantly reduced in the Neuromonics group, with mean improvement of 9.9 dB at 6 months. Changes were not significant for the two control groups.
- Ratings for tolerance of loud sound were significantly improved within the Neuromonics group. Changes were not significant for the two control groups. Note: Tinnitus is often associated with the inability to tolerate loud sounds, or hyperacusis. About the Neuromonics Tinnitus Treatment.

Neuromonics' non-invasive, FDA-cleared device is customized to the patient's unique hearing and tinnitus profile. It delivers a customized neural stimulus that promotes neural plastic changes, allowing the brain to filter out the disturbing tinnitus sound. This stimulus is delivered within spectrally modified, customized music, which engages the brain's emotional response center, the limbic system, and thereby reduces tinnitus-related disturbance. Research published in the April 2007 issue of *Ear & Hearing* and subsequently reported in the September 13 edition of *The Insider* demonstrates the treatment yields clinically significant reduction in tinnitus disturbance in more than 90% of suitable patients. Neuromonics contends that its treatment is the most comprehensive, long-term therapy that targets the neurological processes of tinnitus, specifically its audiological, attention-based, and emotional aspects.

Clinically administered and monitored, the treatment is reported to yield significant long-term reduction of tinnitus disturbance. The therapy is delivered via a compact, lightweight and uniquely designed medical device. Treatment typically occurs over an approximately 6-month period, with daily use recommended for 2 or more hours per day, especially when the tinnitus is most disturbing. The treatment can take place during regular activities such as reading, relaxing, or computer work.

For more information, visit [www.neuromonics.com](http://www.neuromonics.com).