

TINNITUS TIMES

UNCG
SPEECH
AND HEARING
CENTER

Pursue your dream in 2015!

Welcome to the third issue of *Tinnitus Times*, a newsletter on all matters pertaining to tinnitus and sound sensitivity. This edition is intended to educate you on the newest technological advances available at the UNCG Speech and Hearing Center. In addition, a special research insert is included to provide an update on clinical research at UNCG in the areas of tinnitus and sound sensitivity from the past and present.

In this issue, you can learn more about tools and services offered at UNCG Speech and Hearing Center. To stay up to date throughout the year, please like our **Facebook** page (www.facebook.com/uncgaudiology) for weekly posts you may find beneficial.



The UNCG Speech and Hearing Center is proud to have established the first Tinnitus and Hyperacusis Clinic of its kind in North Carolina, which continues to serve as a leader across the region.

Currently, the Center is a Gold member of the American Tinnitus Association (ATA) and a "Premier Provider" of the Neuromonics Tinnitus Treatment. In addition, Dr. Lisa Fox-Thomas is a Fellow member of the Tinnitus Practitioner's Association (TPA). She recently presented at the annual meeting of the North Carolina Speech Hearing & Language Association on use of "tinnitus coaching" for managing tinnitus and sound sensitivity. To learn more, call **(336) 334-5939** to schedule an appointment for a consultation.

The hardest step can be the first step. Let us help you achieve your dream of finding relief from severe tinnitus and sound sensitivity.

"All our dreams can come true, if we have the courage to pursue them."
~ Walt Disney Company



HeartMath[®] heart rate variability (HRV) training was introduced at the UNCG Speech and Hearing Center in July 2014 as a strategy for managing disturbance caused by severe tinnitus and sound sensitivity. Call **(336) 256-2001** today to schedule an appointment for a free HeartMath[®] consultation. Find out how harnessing the power of your breath can optimize your overall wellness and change your perception. Also, see the enclosed *Special Research Insert* for information about a study currently being conducted using HeartMath[®] with UNCG patients who have severe tinnitus disturbance.



The Neuromonics® Family

There are now four options available from Neuromonics® that may be beneficial for patients with varying degrees of tinnitus disturbance. The clinically-proven **Oasis™** remains the only device with the *Phase Two* stimulus, which promotes habituation of tinnitus over time. It was redesigned in 2014 to offer more customized options including additional listening tracks. New headphones also provide better comfort for ears of different sizes. The **Haven™** also was introduced in 2014 as a programmable option for patients who need less clinical support. The Haven™ includes the *Phase One* stimulus for maximum relief while wearing the device. The **Sanctuary™** device has three hearing profiles from which to choose, while still providing high frequency stimulation (up to 12,500 Hz). The newest device, called the **Refuge Sound Relief System**, now is available to improve concentration, well being, and sleep patterns of patients with minimal tinnitus disturbance. To listen for yourself, contact the UNCG Speech and Hearing Center at **(336) 334-5939** and ask for a complimentary demonstration of the new Neuromonics® tinnitus devices.

Feature	Refuge	Sanctuary	Haven	Oasis
Degree of Tinnitus Disturbance	TRQ < 17	TRQ < 35	TRQ < 35	17-104
Phase One Stimulus	X	X	X (adjustable)	X (adjustable)
High-frequency Stimulation (up to 12,500 Hz)	X	X	X	X
Number of Music Tracks	2	4	4	4-7
Data logging			X	X
Balance Adjustment			X	X
Progressive Muscle Relaxation			X	X
Customization	None	3 hearing profiles	Programmable	Programmable
Phase Two Stimulus				X

TRQ = Tinnitus Reaction Questionnaire

"My tinnitus is hardly perceived now. I have to be in a real quiet environment to be aware of it, and when I am aware of it, I get zero stress from it. It's just another sound now." ~ J.B., satisfied UNCG patient

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Never Too Late for a Research Update!

This *Special Research Insert* is intended to update you on clinical research conducted in the areas of tinnitus and sound sensitivity at the UNCG Speech and Hearing Center. Enclosed you will find information about ongoing studies conducted by UNCG students and faculty as well as findings of research already completed.

Effectiveness of the iLs Dreampad™ versus the Sound Pillow® on Reducing Tinnitus and Sleep Disturbance

Participants are needed for a study investigating the use of sound pillows to reduce tinnitus disturbance and improve sleep. Participants must be 18 years of age or older and have trouble falling asleep and/or staying asleep due to their tinnitus disturbance. Participants will be loaned two different sound pillows for a period of two weeks and will be asked to complete surveys throughout their participation in the study. Participation would require up to a three week time commitment. Upon completion of the study, participants will be entered in a drawing to win the sound pillow of their choice (up to \$249 value). Contact **Hilary Kramer** at **(336) 256-2001** for more information.



Association of Tinnitus Disturbance and Heart Rate Variability Using HeartMath® Technology

Participants are needed for a study investigating use of deep breathing techniques to improve heart rate variability (HRV) and decrease tinnitus disturbance. Participants must be at least 18 years old, have significant tinnitus disturbance, and have been using sound therapy for at least 6 months. Qualifying participants will receive HeartMath® coaching (\$240 value) over the course of 6 weeks, including five total visits (30 min—1 hour each). In addition, they will be loaned equipment for monitoring HRV (\$199 value) and will be required to keep a log of their breathing practice. Contact **Sarah Allen** at **(336) 256-2001** for more information.



To learn more, visit <https://www.heartmath.com/personal-use/>.



Survey of Treatment Outcomes of Tinnitus Retraining Therapy (TRT) at UNCG

A dissertation by Dr. Emily Beasley, completed in 2010 under the supervision of Dr. Denise Tucker and Dr. Lisa Fox-Thomas, surveyed UNCG patients and found statistically significant improvements following TRT in each of these areas:

- Loudness of tinnitus
- Feelings of discomfort
- Ability to concentrate
- Ability to be in a quiet room
- Ability to ignore tinnitus
- Ability to sleep
- Ability to relax
- Tinnitus as a "problem"
- Stress due to tinnitus
- Irritability to tinnitus
- Anxiety due to tinnitus
- Ability to interact pleasantly with others
- Tolerance of environmental sounds

Survey participants also reported less tinnitus awareness (76%) and disturbance (71%) following TRT. In addition, 56% of respondents reported their tinnitus was softer following treatment and 70% had a greater sense of control over their tinnitus. Improved ability to sleep (62%) and to relax (78%) also was reported as a result of TRT.

The Development of a Neural Psychological Immune Endocrine Model (T-NPIE) of Tinnitus

A 2014 dissertation by Dr. Ola Alsalman, completed under the supervision of Dr. Denise Tucker, examined individual differences in reaction to stressful situations, including tinnitus, by measuring stress hormones. The project aimed to develop a model of the tinnitus experience with a focus on the influence of physiological changes in the endocrine and immune systems. Ten male participants with tinnitus and ten males without tinnitus were exposed to a backward counting stress task. Saliva samples for four stress hormones (cortisol, alpha-amylase, melatonin, and neopterin) were collected. Results suggest evidence of a potential difference in the reaction of all four stress hormones in the tinnitus group. Findings of this study demonstrate the feasibility of utilizing a psychological immune endocrinal (T-NPIE) model in the study of tinnitus. This project was awarded a grant from the American Tinnitus Association (ATA). Dr. Alsalman currently is working on her tinnitus and hormone research at a post-doctoral position at the Callier Center in Dallas, Texas.



A Treatment Protocol for Selective Sound Sensitivity Syndrome (Misophonia)

Dr. Lisa Fox-Thomas currently is conducting a study investigating treatment for misophonia, a type of sound sensitivity in which individuals have strong emotional reactions to selective sounds (often soft, repetitive sounds such as crunching, sniffing, and tapping). Participants must be at least 12 years old and have been diagnosed with misophonia by an audiologist. Treatment includes counseling, sound therapy, and other individualized approaches for managing negative reactions. If you or someone you know may qualify for the study, please contact Dr. Fox-Thomas by phone at **(336) 256-1496** or email (lgfoxtho@uncg.edu).

Hear it first!

Enjoy the sounds of the ocean without leaving home...



The **Oticon Alta1 Pro** has a new **Tinnitus Support** feature combined with BrainHearing™ Technology. The Alta1 Pro contains an integrated sound generator with adjustable noise that can be used to serve various purposes (i.e., background sound, soothing sound, interesting sound). It also includes unique preprogrammed ocean-like sounds that can be customized for each individual user. **Now you can be among the first in the country to try it!** UNCG Speech and Hearing Center was selected to preview the Alta1 Pro before it is widely released. Call **(336) 334-5939** for a free demonstration of the Alta1 Pro with Tinnitus Support.



**AMERICAN ACADEMY OF
OTOLARYNGOLOGY-
HEAD AND NECK SURGERY**

In November 2014, the *Clinical Practice Guideline* for tinnitus was released by the American Academy of Otolaryngology (AAO). Among the options currently available, the AAO recommended **hearing aids** as the “natural first step” for patients with tinnitus and hearing loss. Amplification can help reduce tinnitus disturbance by stimulating auditory pathways, improving communication, reducing environmental contrast, and removing potential barriers to treatment success. For those patients needing extra assistance, the AAO maintains that **sound therapy** still is an option. Fortunately, all six hearing aid manufacturers (Oticon, Phonak, ReSound, Siemens, Starkey, and Widex) now have sound generators integrated into their high-quality digital instruments. In addition, all manufacturers offer wireless streaming options for limitless sound therapy selections delivered through a customized ear-level device.

SoundCure Serenade®

The Serenade® by SoundCure has been available at the UNCG Speech and Hearing Center since 2012. This sound therapy device uses S-tones, which are amplitude-modulated tones matched to the pitch of the tinnitus. S-tones interrupt the neural network underlying tinnitus, thereby suppressing its perception when played at low levels. In a recent study (Tyler et al, 2014), the authors found S-tones were “more effective at reducing tinnitus loudness than noise” for one-third of subjects. Tinnitus loudness was reported to be 28% softer (on average) when listening to S-tones presented at a volume judged to be “soft.” In addition, the amount of tinnitus suppression with S-tones was nearly twice the amount of loudness reduction achieved with noise.



Free two week trial! Current patients at the UNCG Speech and Hearing Center can try the SoundCure Serenade for two weeks with no obligation to purchase. Please call **(336) 256-2001** for more information or to schedule an appointment for a free demonstration of this sound therapy device for severe tinnitus disturbance.

Do something bigger altogether

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UNCG Tinnitus and Hyperacusis Clinic

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Audiologists at the UNCG Speech and Hearing Center have treated hundreds of patients with severe tinnitus and hyperacusis. The vast majority of our patients have been told nothing can be done to improve their tinnitus and they should “learn to live with it.” In fact, tinnitus is a manageable condition that can be addressed using a combination of directive counseling and support, wellness strategies, and sound therapy. Because there is not a *one size fits all* approach to tinnitus and hyperacusis management, UNCG Speech and Hearing Center offers a variety of treatment options. Following a comprehensive evaluation and professional consultation, most patients find a strategy that works for them. Let us know if you or someone you know could benefit from our services. A caring team of professionals awaits who can help provide the guidance and support you need to reclaim your life from severe tinnitus and sound sensitivity.

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