

*Thank You for contacting the New England Tinnitus and Hyperacusis Clinic.*

Our Clinic is focused on one goal: the comprehensive evaluation and successful treatment of each individual's tinnitus or hyperacusis, ultimately resulting in a quieter and less stressful life for our patients.

This packet of information will provide you with everything that you need to know about our clinic. If you have any further questions, e-mail us at [hearing.balance@snet.net](mailto:hearing.balance@snet.net) or call the office. We look forward to helping you overcome your tinnitus/hyperacusis.

## **What to Expect**

Your initial evaluation will require one or two appointments of approximately two to three hours in length.

During your first appointment, our staff will perform a variety of tests, providing us with important information about your hearing and tinnitus/hyperacusis. The majority of the tests is unique to our Clinic and is not available in other audiology or otolaryngology practices.

If you have had recent audiological testing, please bring these results with you. As a result of the testing done during your first appointment, you may be scheduled for additional testing such as vestibular testing (for diagnosis of balance disorders) or Brainstem Evoked Response (BSER) testing - both of which are done in our office. You may also be scheduled for a CT scan or MRI, which is done by referral. This extensive testing allows us to formulate a treatment plan specifically for you.

Your first appointment will conclude with a counseling session. At that time we will provide you with more detailed information about tinnitus and/or hyperacusis, answer your concerns and questions, discuss the various treatment options, and propose a treatment plan. Your individualized treatment plan may include one or more of the following:

- Specialized Hearing Instruments
- Noise generating devices
- One-on-one counseling

Your treatment plan will depend on the results of your evaluation, and will be fully explained to you.

During your second appointment, which will be scheduled for approximately three weeks later, your individualized treatment plan will be implemented. If your treatment plan includes the use of Tinnitus Retraining Instruments, these devices will be given to you during this appointment. Your audiologist will explain their use, along with how to care for them, and will take as much time as necessary to help you adjust to them.

Follow-up visits continue for up to two years after the implementation of your tinnitus treatment program. You may opt to choose one or two year consultation plans (see Testing and Consultation Fees/pg.5), or pay as you go with consultations at \$75/each. If you live outside of Connecticut, you may elect to continue follow-up counseling sessions via telephone, and visit the office as needed.

## **Commitment and Continuity of Care**

Many patients begin to experience a reduction in tinnitus symptoms within eight months of the start of treatment. Depending on a variety of factors, including the patient's commitment to the treatment program recommended by the audiologist, a significant reduction in symptoms can take anywhere from eight months to two years.

Periodic counseling sessions and follow-up visits are included as part of each individual's treatment program. These sessions are important to the success of Tinnitus Retraining Therapy.

*It is important to remember that the treatment of tinnitus or hyperacusis is a long process with no instant or overnight cure.*

## **Definitions**

**Tinnitus-** also known as "ringing in the ears", can be pronounced "tih-nih-tus" or "tin-eye-tus".

**Hyperacusis-** is an abnormal, strong reaction to sound occurring within the auditory pathways.

**Misophonia and phonophobia-** are defined as behavioral reactions to sounds which may or may not be physically loud, yet cause a strong dislike to a sound or group of sounds. A negative attitude to those sounds is called *misophonia* where a fear to those sounds is called *phonophobia*.

In our clinic we desensitize our patients to sounds by exposing them systematically to sounds. A variety of protocols are used based on individual complaints. In addition to the desensitization approach, counseling is used to remove negative attitude toward sounds.

**Tinnitus Retraining Therapy (aka TRT)** - This treatment, also known as "habituation therapy", was developed by Dr. Pawel Jastreboff of the Tinnitus and Hyperacusis Center at Emory University. TRT involves the "retraining" of the patient's auditory (hearing) center to ignore/habituate the tinnitus.

**Tinnitus Retraining Instrument (aka TRI)**- A device used in conjunction with Tinnitus Retraining Therapy when deemed appropriate. The TRI emits a faint broadband sound, audible to the user. It fits within the patient's ear, making it virtually invisible, and can be worn while sleeping.

The TRI, was developed by our Clinic Director Dr. Natan Bauman (who has received a U.S. patent for this device), and approved by Dr. Jastreboff of the Tinnitus and Hyperacusis Center at Emory University. The TRI is used in pairs, one for each ear, even if the patient is only experiencing tinnitus in one ear.

## Tinnitus Testing and Consultation Fees

The New England Tinnitus and Hyperacusis Clinic does not participate with any insurance companies. The patient is responsible for full payment at the time of service.

**Initial consultation/directive counseling** **\$500**

**Testing Fees** **\$825**

**Option 1: One Year Plan** **\$500**

Annual consultation fee for the first year. Covers one year of 6 consultations and must be paid for at the time of the first visit. If you would require additional consultations within the year, they would be billed at the standard fee of \$75.00 for a 30 minute appointment.

**Option 2: Two Year Plan** **\$800**

One-time consultation fee for years one and two. This plan covers 6 consultations for the first year and up to 6 consultations for the second year. This plan must be paid for at the time of the first visit. Additional visits are billed at the standard fee of \$75.00 for a 30 minute appointment.

\*We have reserved 3 hours for your tinnitus evaluation.

\*\*If it becomes necessary to cancel your appointment please give us at least 48 hours notice.

\*\*\*We reserve the right to charge a \$350.00 fee for the missed appointment.

**Appointments are required for all consultations.**

## Frequently Asked Questions

**How do you treat tinnitus?** Our treatment is called *Tinnitus Retraining Therapy*, but other names such as *Habituation Therapy* are common. It involves an extensive audiological evaluation, several counseling sessions, the use of external sound, and frequently the use of sound devices. It does not involve and surgery or drugs.

**What does *retraining therapy* mean?** We try to retrain the subconscious parts of the brain to ignore the sound of your tinnitus, achieving a point at which you are not aware of and no longer annoyed by your tinnitus.

**Are there any side effects of the treatment?** There are not any side effects.

**What kind of audiological tests are performed? Will they hurt my ears? What if I can't hear my tinnitus when I am tested?** The tests include an audiogram and several specific tests which allow us to evaluate the existence and degree of your tinnitus/hyperacusis. The tests begin with low levels of sound that gradually get louder, therefore, none of the tests will be painful. If the tinnitus is not present on the day of the testing, it will NOT influence the possibility of success with the treatment.

**I recently had audiological tests done. Do they have to be repeated?** We prefer to have the tests performed in our Center. Equipment calibrations may vary and there are also very specific measurements we perform which are not routinely provided in other places.

**Is the counseling a form of psychotherapy or biofeedback?** No, the counseling will provide you with information about the causes and factors involved in your tinnitus/hyperacusis, explain to you how the retraining therapy works, and teach you how to control your tinnitus. The counseling is a fundamental part of the treatment process.

**What is the role of external sound?** External sound from radios, TVs, stereos, etc. is used at a low level, not to cover (mask) your tinnitus, but to help bring about the changes in your subconscious hearing system. It reduces the contrast between your tinnitus and complete silence, and slightly distracts you from the sound of your tinnitus.

**What are the devices and what do they look like?** The devices used in retraining therapy are called "noise generators" or "retraining instruments". The devices are small instruments that are worn either behind or inside both ears. They should not interfere with your work or talking on the telephone; in fact, the in-the-ear devices can be worn while sleeping.

**Can I just buy the devices?** The devices are used to help speed up the retraining, but what is important is how they are used. How the devices are used depends on each individual patient's need. If you just buy and wear the devices, you most likely will not achieve improvement, and in some cases you may even harm yourself. We will teach you how to use them effectively.

**Do I need to have the devices?** Not everyone needs the devices. After your audiological evaluation, we will give you our recommendation regarding your treatment.

**I am using hearing instruments. How can I use other devices?** Depending on the type of hearing instruments, it is possible we can work with your hearing instruments and you will not need any other devices, or you may alternate between amplification and retraining devices.

**I was using maskers without any effect. What's the difference between maskers and these devices?** Although in some cases masking can provide tinnitus relief, this approach is aimed at making tinnitus inaudible. However, when the device is removed, the tinnitus returns and the level of sound required to mask the tinnitus may be uncomfortable. We use the devices to generate noise, not to cover, but to mix with the sound of tinnitus. The goal of retraining therapy is to retrain the brain so that it eventually does not pick up the tinnitus sound. In order to this, the tinnitus cannot be covered. Generating sound that mixes with your tinnitus will help you feel more comfortable and remove the emotional response to tinnitus - followed by the habituation of perception of the tinnitus itself so that it is no longer heard.

**My mother is deaf and has tinnitus. Can she benefit from Tinnitus Retraining Therapy?** This therapy uses sound as a portion of the protocol. If your mother is completely deaf and does not have a cochlear implant, she would not be able to benefit from this therapy. However, the use of electrical stimulation of the ear (through cochlear implant or external stimulation) combined with Tinnitus Retraining Therapy may help. If she can hear sound, even if she cannot recognize speech, we can try to

help her. If the deafness is only in one ear, she can be successfully treated using a modified method described by Dr. Natan Bauman. (Transcranial fittings for tinnitus therapy)

**I am taking some medication. Will I be able to continue?** Our evaluation will provide the answer to this question. In general, if you are taking medication for any reason other than tinnitus, you should be able to continue taking the medication.

**How long does the treatment take?** The treatment takes from 8 to 24 months.

**Will I be cured?** You will no longer be bothered or annoyed by your tinnitus. However, if you concentrate and want to hear your tinnitus, you will. This is why refer to Tinnitus Retraining Therapy as a treatment and not a cure.

**What is the guarantee that I get better?** There is no guarantee. From our experience, over 80% of patients engaged in Tinnitus Retraining Therapy have reported significant improvement.

**If I am using retraining therapy for my tinnitus and need to have some dental work done including some high speed drilling, can I have it done and what should I expect?** You should contact us and speak with the audiologist who is working with you. High-speed dental drills produce loud sound which is transmitted not only through the air, but also by bone conduction. This sound may increase tinnitus (in most cases, only temporary). In general, it would be better to avoid loud drilling if possible. There is a new and still controversial, quiet technology called air-abrasive microdentistry. This is something which you might like to explore and seek more information from dental professionals.

**How is hyperacusis treated?** Hyperacusis is also treated using the TRI devices. In most cases the treatment lasts anywhere between 6-12 months. It involves wearing the sound devices with counseling especially if and when this is associated with an aversion to sounds. (Hyperacusis in most instances can be completely cured.)

**If I am using retraining therapy for my hyperacusis and need to have dental work done, including some high speed drilling, can I have it done and what can I expect?** You should avoid exposure to the loud sound. Hyperacusis can worsen after high speed drilling.

**I was advised to have an MRI screening done. Can I expect any problems with my tinnitus and/or hyperacusis?** If you need to have an MRI done, we advise you not to use a close field, but an open field MRI and protect your ears as well. Unfortunately, some patients have reported that their tinnitus or hyperacusis started or became unbearable after MRI exposure.

**Can cosmetic facial surgery affect my tinnitus and/or hyperacusis?** There is no reason to suspect that this procedure will have any effect. I would try to postpone the surgery if it involves drilling or is in very close proximity to the ear.

## **Clinic Staff**

The New England Tinnitus and Hyperacusis Clinic was established in 1995 under the direction of **Dr. Natan Bauman, Ed.D., M.S., Eng., CCC-A, F-AAA**. Dr. Bauman is a recognized leader in the field of audiological testing, vestibular testing, and hearing instrument assessment and design.

He received his Masters Degree in Electronics from Wroclaw Polytechnic Institute in Poland, and his Master's and Doctoral degrees in Audiology from Columbia University. He is also the Director of the Hearing, Balance and Speech Center and holds a U.S. Patent for the TRI (Tinnitus Retraining Instrument). He is currently listed in *Who's Who in Science and Engineering*.

**Janice A. Howard, M.A., CCC-A**, is a nationally certified and state-licensed audiologist. She received her Bachelor's Degree in Communication Sciences and her Masters in Audiology from the University of Connecticut. She frequently lectures throughout the region on the subject of tinnitus and hearing loss.

*Dr. Bauman and Ms. Howard have received specialized training at the University of Maryland Tinnitus and Hyperacusis Center, where Tinnitus Retraining Therapy (TRT) was pioneered by Dr. Pawel Jastreboff.*