

AVI
NEW ENGLAND



Auditory & Vestibular Institute of New England

TINNITUS AND SOUND SENSITIVITY

THANK YOU FOR CONTACTING THE TINNITUS AND HYPERACUSIS CLINIC, A DIVISION OF THE AUDITORY AND VESTIBULAR INSTITUTE OF NEW ENGLAND

WELCOME

Our Clinic is focused on one goal: the comprehensive evaluation and successful treatment of each individual's Tinnitus (including music Tinnitus) and various forms of Sound Sensitivity Disorders (SSDs) such as: Hyperacusis, Phonophobia, Misophonia, TTTS, Acoustic Shock and Mal de Debarquement Syndrome 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, please contact us at (475) 227-0829. We look forward to helping you overcome your Tinnitus and/or Sound Sensitivity (SSD) problem.

WHAT TO EXPECT

Your initial evaluation will require one or two appointments of approximately two to three hours in length. Please note, for Misophonia patients the evaluation takes no more than 30 to 45 minutes. During your first appointment, our staff will perform a variety of tests, providing us with important information about your hearing, Tinnitus and/or your SSD. Most of our tests are unique to our Clinic and are 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 recommended to 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 your SSD, answer your concerns and questions, discuss the various treatment options, and propose a treatment plan. The results of your evaluation will be fully explained, and your individualized treatment plan will be developed based on those results including one or more of the following:

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

During your second appointment, which will be scheduled approximately two to three weeks later, your individualized treatment plan will be implemented. If your treatment plan includes the use of Tinnitus Retraining Instruments, or Sound Desensitization Instruments, you will be receiving such devices 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 may continue for up to two years after the implementation of your treatment program. You may opt to choose one or two-year consultation plans (see Testing and Consultation Fees below), or pay as you go with a consultation fee of \$125.00/each for a 30 minute session. If you live outside of Connecticut, you may elect to continue follow-up counseling sessions via telephone or virtually via the internet and visit the office only as needed.

COMMITMENT AND CONTINUITY OF CARE

Many patients begin to experience a reduction in Tinnitus symptoms within 8 months of the start of treatment. This varies for our SSD patients from as little as 2 months to 6 to 9 months depending on the SSD condition. 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 8 months to 2 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 CHaTT (Cognitive Habituation Tinnitus Therapy). Our Misophonia treatment plan consists of RPM (Reverse Progressive Masking) and parts of the counseling from CHaTT.

It is important to remember that the treatment of Tinnitus or SSD 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 and associated phobia 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 physical aspect of sound desensitization approach, counseling is used to remove negative attitude toward sounds.

Cognitive Habituation Tinnitus Therapy (CHaTT) – This Tinnitus therapy was developed by Dr. Natan Bauman. It is a modified TRT* program which also includes components of:

- a) Cognitive Behavioral Therapy
- b) Components of pictorial representation and
- c) Music as a form of distraction and relaxation
- d) Other counselling methods as needed

CHaTT is a therapy program which individualizes the treatment protocol to the patient's Tinnitus and/or SSD disability. Each patient's Tinnitus and/or SSD's reaction score to those offending conditions is obtained. This allows us to recommend a very individual approach to treatment.

Tinnitus Retraining Instrument (aka TRI) or Sound Desensitization Instrument (aka SDI) – A device used in conjunction with CHaTT and RPM when deemed appropriate. The TRI/SDI 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/SDI, 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 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 habituate the Tinnitus.

TINNITUS/SSD TESTING AND CONSULTATION FEES

Services provided by the Tinnitus and Hyperacusis Clinic are not covered by insurance, the patient is responsible for full payment at the time of service.

Consultation (30 minutes appointment) \$150

Directive Counseling (3-hour appointment) \$1,000

Credit Card is required to secure appointment. Fees will be charged day of appointment or if appointment is not cancelled within 48 hours of appointment or no show.

Testing Fees \$825*

*Maximum fee, your fee will depend on the number of tests performed.

Option 1: One Year Plan \$700

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 require additional consultations within the year, they would be billed at the standard fee of \$125.00 for a 30-minute appointment.

Option 2: Two Year Plan \$1,300

One time consultation fee for years one and two. This plan covers 6 consultations for the first year and 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 \$125.00 for a 30-minute appointment.

FREQUENTLY ASKED QUESTIONS

How do you treat Tinnitus?

Our treatment is called Cognitive Habituation Tinnitus Therapy, but other names such as Retraining, or 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 surgery or drugs.

What does Cognitive Habituation Therapy mean?

We aim to retrain the subconscious parts of the brain to accept and ignore (habituate) the sound of your Tinnitus achieving a point at which you are not aware of and no longer annoyed by your Tinnitus and thus no longer “attend” to listening to tinnitus and to “care” about its presence. Your perception of Tinnitus existence disappears.

In cases of SSD we retrain and modify parts of the auditory pathways as well as parts of the non-auditory structures which often participate in “amplifying” certain sounds. For example, the learned conditioned response to misophonic sounds becomes reconditioned.

Are there any side effects of the treatment?

There are no side effects.

What kind of audiological tests are performed? Will they hurt my ears?

What if I cannot 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 or harmful. If the Tinnitus is not present on the day of the testing, it will NOT influence 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/SSD, explain to you how the retraining/habituation therapy works, and teach you how to control your Tinnitus and how to modify your perception of what tinnitus is and what it means to you. The counseling is a fundamental part of the treatment process. We refer to this part of treatment as “**software**”.

What is the role of external sound?

We refer to this part of treatment as “**hardware**”. 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 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 to facilitate 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 but noise which does not cover Tinnitus, but it blends with the sound of tinnitus. The goal of retraining therapy is to retrain the brain so that it eventually does not listen and does not attend to the Tinnitus sound. In order to accomplish this, the Tinnitus cannot be completely masked or covered. Generating sound that mixes with your Tinnitus will help you feel more comfortable and remove the emotional response to Tinnitus which eventually leads to 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 Cognitive Habituation Tinnitus 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 CHaTT 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 while the other ear has normal hearing, she can be successfully treated using a modified method described by Dr. Natan Bauman, called 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 hear it. This is why we refer to Cognitive Habituation Tinnitus Therapy as a treatment and not a cure. We refer to the result of this treatment as “wearing underwear, how often are we aware of its presence”. We aim to make the sound of tinnitus so irrelevant, such as the underwear, that there is no reason for your brain to attend to it and subsequently to hear it.

What is the guarantee that I get better?

There is no guarantee. From our experience, over 80% of patients engaged in CHaTT 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 micro dentistry. 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 contact us prior to your dental visit for proper counseling.

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. Some patients have reported that their Tinnitus or Hyperacusis started or became unbearable after MRI exposure. It is advisable to have a counseling session prior to having an MRI.

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.

How is Misophonia treated?

Dr. Bauman developed a method for treatment which combines sound therapy – “hardware” (RPM) with counseling process – “software” from CHaTT which he has used successfully over the past few years.

CLINIC STAFF

Dr. Natan Bauman, Ed.D., M.S., Eng., CCC-A, F-AAA 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 holds many U.S. Patents such as for the TRI (Tinnitus Retraining Instrument) as well as for the most used hearing aid design, the Receiver In the Ear. He is currently listed in *Who's Who in Science and Engineering*. *Dr. Bauman*

Dr Bauman's former affiliations include Director of The Hearing Speech and Language at Yale New Haven Hospital, former owner and founder of the Hearing Balance and Speech Center, and former owner and founder of The New England Tinnitus and Hyperacusis Clinic.

Dr. Bauman currently lectures about Tinnitus and SSD worldwide. He is the founder of the Tinnitus Practitioners Association and he continues to present two-to-four-day seminars to other audiologists on treatment for Tinnitus and SSD.

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