# Recapturing the Everyday Moments with Breakthrough Tinnitus Treatment


Neuromonics
Tinnitus Treatment

For some, tinnitus is a distraction or an annoyance. But for others, tinnitus can be debilitating. Tinnitus is a condition that can result from a range of underlying causes, including ear infections, foreign objects or wax in the ear, or injury from loud noises. Tinnitus can also result as a side-effect of some medications (ototoxicity). Tinnitus is often evaluated clinically from mild to severe according to the impact on quality of life, such as interference with sleep, quiet activities, work roles, social interaction or normal daily activities.

It is estimated that 10% to 15% of adults have prolonged tinnitus requiring medical evaluation and approximately 2 million Americans suffer from severe tinnitus.

## CHRIS

### WHY THE NEUROMONICS TINNITUS TREATMENT?

"Some people talk about not being able to get to sleep; my problem was when I woke up in the morning. For years and years the first thing I would do in the morning was jump out of bed, because I couldn't stand lying in bed in that very quiet situation with this ringing in my ears.

It was at the point where I'd be saying half a dozen times a day 'This is driving me crazy.' I had to find something."

### RESULTS:

"It's made life more tolerable. I sometimes listen to the treatment when I am lying in bed at 4 AM, and most mornings I'll fall back asleep. My life is a hundred percent better."

**Chris developed tinnitus as a result of a car accident and head trauma.**

**TINNITUS:** the perception of sound without corresponding external sound(s) present.


# ABOUT TINNITUS

**WHAT IS TINNITUS?** Tinnitus is a widespread condition affecting up to 50 million Americans—often as a result of hearing loss after exposure to excessive or loud noises.

Sufferers perceive sound in the ear or head in the absence of corresponding external stimuli (i.e. a sufferer hears a ringing, buzzing, hissing, clicking, roaring or beeping although there is no external or environmental sound creating it).

## WHAT CAUSES TINNITUS? Most commonly, tinnitus results from an ear disorder in combination with a myriad of neurological responses.

A common cause of tinnitus is exposure to excessive or loud noises. Tinnitus is also a result of hearing loss due to aging (presbycusis).

### CAUSES OR TRIGGERS OF TINNITUS INCLUDE:

- Hearing loss
- Excessive noise
- Trauma/head injury
- Traumatic brain injury (TBI)
- Post traumatic stress disorder (PTSD)
- Ototoxic drugs
- Temporal mandibular joint disorder (TMJ)
- Depression
- Anxiety
- Lyme disease
- Thyroid disorders

### SIMON

#### WHY THE NEUROMONICS TINNITUS TREATMENT?

"It really began to affect my life. After a day of battling the loud noise in my ears at work, I would go home at the end of the day absolutely lethargic.

I was afraid that this condition would last twenty-four hours a day for the rest of my life."

#### RESULTS:

"The treatment changed my life. Whenever I see people with tinnitus, I say, 'give Neuromonics a try'. There are still a lot of doctors who will tell you there's nothing you can do about it. But there is something you can do about it, and this is it."

**Simon developed tinnitus as a result of Meniere's disease.**

**OTOTOXICITY:** damage of the ear, specifically the cochlea or auditory nerve and sometimes the vestibulum, by a toxin (often medication). Symptoms include partial or profound hearing loss, vertigo, and tinnitus.

**WHAT EFFECTS DOES IT HAVE?** Chronic tinnitus can be very stressful, debilitating and disruptive to everyday activities. Psychologically, tinnitus can interrupt and distract mental tasks and interfere with sleep.

Many tinnitus sufferers have irregular sleep patterns that result in sleep deprivation. In addition, tinnitus sufferers are often prescribed medications to cover some of the tinnitus symptoms or other health conditions that may have been impacted by the tinnitus. However, these medications typically do not treat the tinnitus itself.

### COMMON EFFECTS OF SLEEP DEPRIVATION:

- Aching muscles
- Depression
- Diabetes—Type 2
- Decreased concentration/ ADHD-like symptoms
- Headaches
- Hypertension/hyperactivity
- Impatience
- Irritability
- Weight gain/obesity

For some, tinnitus is more than a mild annoyance—it is a chronic and distressing condition that can lead to:

- Loss of sleep
- Inability to relax
- Lack of concentration
- Sensitivity to loud sounds/ hyperacusis
- Negative impact on work, family, and social life

**SLEEP DEPRIVATION:** a general lack of the necessary amount of sleep.

**DEPRESSION:** a disease that involves the body, mood and thoughts. Typical feelings are intense sadness, melancholia or despair. This type of mood state does not pass and can advance to the point of being disruptive to an individual's social functioning and/or activities of daily living.

**ANXIETY:** an emotional state of high energy that is unpleasant and combines multiple emotions that can include fear, apprehension, and worry. This type of emotional state is often coupled with physical sensations such as heart palpitations, nausea, chest pain, shortness of breath, or tension headache.

**STRESS:** a physical or psychological cause that results in mental or physiological reactions that may lead to illness. Stress can cause feelings of having too many demands or pressure and can disturb sleep, appetite and mood.


ABOUT THE
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# NEUROMONICS TREATMENT

## WHAT IS THE NEUROMONICS TINNITUS TREATMENT? Clinically proven—Non-invasive—Effective.

The Neuromonics Tinnitus Treatment is a global breakthrough in treating tinnitus. This treatment is FDA-cleared, patented and clinically-tested.

It is clinically administered and monitored by a trained healthcare professional. The Treatment is comprehensive, non-invasive and effective—offering proven and significant long-term reduction of tinnitus disturbance.

The Treatment is designed specifically to target the neurological processes of tinnitus, specifically its auditory, attentional and emotional aspects. The Treatment regimen is customized to each patient's unique hearing and tinnitus profile. This treatment has been developed and tested since the early 1990's with thousands of patients treated worldwide.

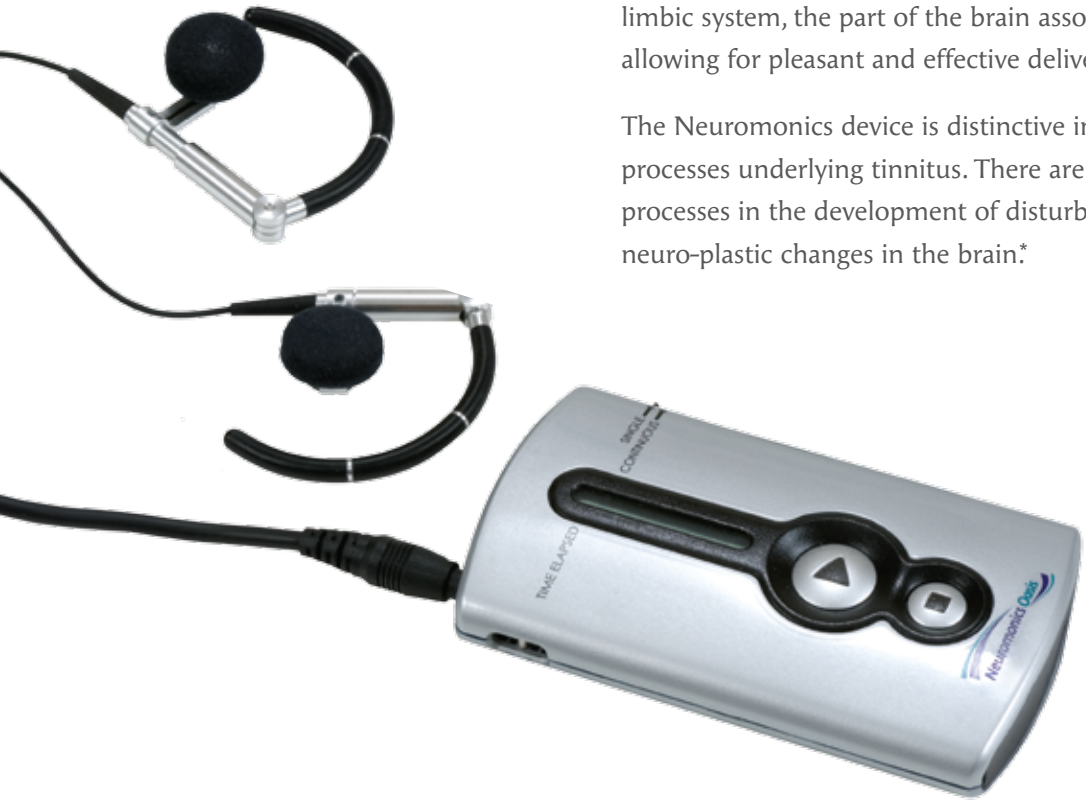
The Treatment is delivered via a compact, lightweight and uniquely-designed medical device. In addition to delivering important auditory stimulation in a manner that is customized and optimized to the user's unique hearing and tinnitus profile, the Neuromonics device also contains an internal data and memory component to assist with treatment management on a day-to-day basis.

## HOW DOES THE NEUROMONICS TINNITUS TREATMENT WORK?

Auditory—Attentional—Emotional. The Treatment delivers a spectrally-modified neural stimulus that is designed to interact, interrupt and desensitize tinnitus disturbance for long-term benefit.

The stimulus is embedded within precisely-designed music and customized for each user's profile. The music positively engages the limbic system, the part of the brain associated with emotional response, allowing for pleasant and effective delivery of the treatment.

The Neuromonics device is distinctive in that it targets the neurological processes underlying tinnitus. There are three discrete but interrelated processes in the development of disturbing tinnitus—all of them involve neuro-plastic changes in the brain.*



These processes involve...

1. Changes within the **auditory** system which lead to the initial **perception** of the tinnitus sound.

2. The **attentional** filters in the brain which cause the patient to pay **attention** to the tinnitus perception.

3. The **emotional** response and the limbic system which cause an aversive **reaction** to the tinnitus.

Using neuroplasticity, the Treatment stimulates the auditory pathway with the intention of promoting new neural changes that allow the brain to help filter out the tinnitus sound, thus reducing the disturbance and impact of tinnitus (i.e. it retrains the brain to stop paying attention to the tinnitus sound and stop reacting negatively to it). It is the most comprehensive long-term therapy that targets the neurological processes of tinnitus—auditory, attentional and emotional.

## TOM

### WHY THE NEUROMONICS TINNITUS TREATMENT?

"The thing that caught my eye was that there were clinical trials to back up the claims of success. I have had more good days in the first month of treatment than I have had in the last 22 years. The treatment has improved my energy, focus, sense of well being and my excitement for life."

### RESULTS:

"The Neuromonics Tinnitus Treatment has given me an easier and more practical long term solution to tinnitus. Give it a few weeks and you won't believe the difference! The treatment changed my life."

**Tom developed tinnitus from an unknown cause.**

* Reviewed by: Moller, A. (2007). The role of neural plasticity in tinnitus. *Progr Brain Res, 166, 37-46*; Kaltenbach, J.A. (2006). The dorsal cochlear nucleus as a participant in the auditory, attentional and emotional components in tinnitus. *Hearing Research, 216-217:224-234*. Georgiewa, P., et al. (2006). An integrative model of developing tinnitus based on recent neurobiological findings. *Medical Hypotheses, 66, 592-600*; Tyler, R.S. (2005). Neurophysiological models, physchological models, and treatments for tinnitus. In Tyler (Ed). *Tinnitus Treatments: Clinical Protocols* (pp. 1-22). Thieme, London; Jastreboff, P. (2004). The neurophysiological model of tinnitus. In Snow, J.B. (Ed). *Tinnitus: theory and management* (pp. 96-107). BC Decker, Hamilton.

**CLINICAL OUTCOMES** By simultaneously addressing the three key underlying neurological processes implicated in disturbing tinnitus, the Treatment is able to achieve consistent, often rapid and efficient results for tinnitus patients.

In a reported clinical study,** 90% of patients with disturbing tinnitus reported a reduction in their tinnitus-related disturbance of 40% or more, with a mean improvement of 65%. Results were reported quickly—with significant benefits after only two months. Furthermore, after six months of treatment, 80% of subjects reported a level of tinnitus disturbance that was no longer clinically significant. A very high proportion of patients reported sizeable benefits in sleep, relaxation, and general well being, and over 95% indicated that they found the treatment pleasant to listen to, and would recommend it to others.

** Davis, P.B., Paki, B., & Hanley P.J. (2007). The Neuromonics Tinnitus Treatment: Third Clinical Trial. *Ear & Hearing, 28: 242-259.*

**LIMBIC SYSTEM:** a complex structure within the cerebral cortex and sub-cortex of the brain. It influences emotional states, behavior and long-term memory.

**NEUROPLASTICITY:** the flexibility and adaptability of the brain to reorganize and create new neural connections. This process happens throughout life. Neuroplasticity is responsible for allowing neurons to compensate for injury or disease. The damaged areas reorganize and form new connections with healthy neurons.

## NEUROMONICS TINNITUS TREATMENT BENEFITS

- Short-term treatment process
- Easy-to-use device
- Non-invasive
- Significant tinnitus relief
- Long-term reduction of tinnitus disturbance
- Improved sleep

## TREATMENT OVERVIEW

Using a sophisticated algorithm, the Neuromonics Treatment regimen is customized and matched to each patient's unique hearing and tinnitus profile.

A compact medical device delivers treatment in what is typically a six-month period, with many reporting relief immediately. Daily treatment, for two or more hours per day, is recommended when the tinnitus is most disturbing. The Treatment can take place during regular daily activities such as reading, cooking, and computer work. During the treatment process, regular follow-up visits are scheduled with a trained healthcare professional who also provides a complementary program of education and support.

The Treatment involves a multi-stage process designed for optimal clinical results. In Stage One, a continuous broad frequency stimulus embedded within spectrally modified music provides a high degree of interaction and relief from the tinnitus. In Stage Two, intermittent interaction with tinnitus perception helps decrease the brain's sensitivity to the tinnitus sound.

## HOW TO START THE NEUROMONICS TINNITUS TREATMENT

### 1 VISIT

www.neuromonics.com to find a clinic in your area offering the Neuromonics Tinnitus Treatment.

### 2 CONTACT

Contact the clinic to schedule a Neuromonics Tinnitus Treatment assessment.

### 3 PROCEED

Proceed with the Neuromonics Tinnitus Treatment if you are a candidate.

### 4 ENJOY

Enjoy the benefits of long-term tinnitus relief.

## ABOUT NEUROMONICS

Neuromonics is the manufacturer and distributor of the only FDA-cleared, patented, customized and clinically proven medical device designed for long-term significant relief of tinnitus.

With research and development beginning in the early 1990's, the Neuromonics Tinnitus Treatment has treated thousands of tinnitus sufferers worldwide. Our goal is to help tinnitus sufferers improve their quality of life and overcome the daily life challenges associated with tinnitus.

Neuromonics
Tinnitus Treatment

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