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**ACHES & CLAIMS** | *By Laura Johannes*

## Training Your Brain To Ignore Tinnitus

**I**f ringing in your ears is making you miserable, there is a digital music player for tinnitus that trains the brain to ignore it. The device hasn't yet been tested by independent researchers, but audiologists say it is helping many of their patients.

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Tinnitus is a perception of sounds, such as ringing, high-pitched beeps or buzzing, where none exist. A common problem among soldiers, the causes include exposure to loud noises and traumatic brain injury. Some 50 million Americans have at least some problem with tinnitus, and 12 million of them have seen a doctor about it, according to the American Tinnitus Association. Two million have tinnitus so severe it interferes with their ability to live a normal life.

Before any treatment, the first step is to see if there is a treatable cause, such as ear wax, or in rare cases, a tumor pressing on a nerve. But in general, there is no cure—and many patients have been told to learn to live with it.

Neuromonics Inc., of Bethlehem, Pa., rolled out its device last year, and it is offered in 200 U.S. clinics. The therapy involves listening to special music at least two to three hours a day for six months. Selections include New Age relaxation music and mellow tracks by Vivaldi and Bach, customized to each patient, depending on their amount and type of hearing loss.

For the first two months, the music mix includes a noise, which some describe as water in a shower, to cover the tinnitus. In the third month, the shower sound is removed and patients are instructed to turn up the music just loud enough so the tinnitus is audible only during the quiet parts. The idea is the brain will be gradually trained to ignore the tinnitus. After six months, patients use the device as needed.

Cost, which includes the initial fitting and counseling on tinnitus management, ranges from \$3,500 to \$6,000 for the six-month treatment. It isn't generally covered by insurance.

So far, there is no independent research showing the effectiveness of the therapy. Neuromonics published a 35-patient study last year that found 91% of patients tested saw their tinnitus improve at least 40% as measured by a questionnaire—but the study doesn't include a control group for comparison. The company says another study did find the treatment more effective than either counseling alone or another type of sound therapy, but declined to release the data pending publication.

Some audiologists are enthusiastic. "Patients tell me it has changed their lives," says Craig Newman, section head of audiology at the Cleveland Clinic, which has fitted about 50 patients with the device.

Craig Kasper, director of the New York Tinnitus Center in Manhattan, is impressed, but adds, "it's not a magic bullet,

there is definite variability in terms of outcomes." Some patients experience no improvement, or merely a little, while others find their tinnitus hardly bothers them.

Another retraining method, Tinnitus Retraining Therapy, was invented by neuroscientist Pawel J. Jastreboff, and uses hearing-aid-like devices that emit a shower-like sound with the tinnitus just audible over the noise. The idea, says Dr. Jastreboff, is to break the mental connection between the tinnitus signal and unpleasant sensations and "make it easier to habituate to it."

TRT, which Dr. Jastreboff says costs an average of \$3,000 for device and counseling, has been shown effective by well-respected independent research. But it has a long treatment time—nine to 18 months or more.

Dr. Jastreboff says Neuromonics device probably will help people with mild-to-moderate tinnitus but questions whether it will work in severe cases. He also questions whether the device is better than an iPod with soothing music, which could be easily customized on a computer for patients with trouble hearing.

Neuromonics says its published data and audiologists' experiences show the device is effective even in severe cases. The company says the customization and the personal attention of an audiologist make it worth the cost.