



Staff Photo/The News-Gazette

John Foltz holds one the earplugs he wears to relieve his tinnitus symptoms at the Assembly Hall on Sunday.

HEARING HEALTH

MORE THAN NOISE

With no cure and little treatment, tinnitus troublesome for young, old

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As a law student in the early 1970s, John Foltz started to notice a ringing in his ears. It wasn't that bothersome, and he eventually learned to ignore it.

Then, after a weekend in 2001 in which he took in a loud movie and a University of Illinois basketball game at the Assembly Hall, Foltz's tinnitus returned — with a vengeance.

"My ears hurt, I had this ringing, and it's never really gone away," he said last week. "It's a high-pitched ringing that, thank God, varies in intensity on a day-to-day basis. Sunday it was completely quiet and on Monday loud. Today it's OK. I go three or four days with next to nothing, and then a day comes where it will just ring off my head."

Tinnitus (pronounced TINIHT-us or TIN-i-tus) is

defined by the American Tinnitus Association as the perception of sound where no external sound exists. People who have tinnitus describe it as a ringing, hissing, roaring, buzzing or whooshing sound. It can be heard in just one ear or, as in Foltz's case, both ears.

It once was considered a condition of aging due to hearing loss or damage. Indeed, it's a growing problem for baby boomers and musicians who were exposed to loud volumes at rock concerts. Rock stars such as Pete Townshend and Eric Clapton and jazz guitarist Al DiMeola all have publicly addressed their tinnitus.

Now the younger generation is tuning into tinnitus, mainly as a result of exposure to high volumes at concerts and over MP3 players. In 2005, the Centers for Disease Control reported that nearly 13 percent of children

About tinnitus

Tinnitus fast facts from the American Tinnitus Association (www.ata.org):

- Tinnitus is the perception of sound in one or both ears where no external sound exists.
- Those affected describe it as ringing, hissing, roaring, buzzing or whooshing.
- 10 million to 12 million Americans have chronic tinnitus and seek medical treatment.
- 1 million to 2 million Americans with tinnitus are debilitated by the condition.
- Tinnitus is most commonly caused by exposure

to loud noise. The second leading cause is neck injury.

- A 2007 study of 900 musicians found that at least 60 percent report occasional tinnitus.
- Tinnitus is the No. 1 service-connected disability among veterans returning from Iraq and Afghanistan. Walter Reed Army Medical Center recently reported that 49 percent of veterans exposed to improvised explosive devices report having tinnitus.
- In 2006, the Depart-

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age 6 to 19 have some form of noise-induced hearing loss which can lead to or cause tinnitus.

(Last year, Apple introduced a software update for the iPod nano and fifth generation iPod that gives parents the ability to set a maximum volume limit on their child's iPod and lock it

with a combination code.) And, nearly 50 percent of returning veterans from Iraq and Afghanistan who were exposed to improvised explosive devices or who have neck, head or brain injuries — even mild ones — report tinnitus, making it the No. 1

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military service-connected disability from the War on Terror, according to the American Tinnitus Association, which for that reason has sought increased funding for tinnitus research.

Association executive director David Fagerlie calls tinnitus the malady of the 21st century.

"We believe if something isn't done, it could become an epidemic," said Jennifer DuPriest, director of public affairs for the Portland, Ore.-based association.

There is yet no cure for tinnitus. At Carle Clinic in Urbana, Dr. Michael Novak, an otologist, said the majority of tinnitus cases are due to hearing loss, and that the hearing loss is treated with surgery or a hearing aid.

"Sometimes the tinnitus improves," he said. "Otherwise there's a huge number of possible origins for tinnitus. If you have a specific origin, you might treat for that and improve it. With most people who have nerve-type hearing loss, you can't treat them other than putting on a hearing aid."

Dr. Carol Bauer, an otologist at the Southern Illinois University School of Medicine in Springfield, said some cases of tinnitus can be temporary.

"If people have fluid behind their ears either from an ear infection or allergies, that can cause a hearing loss and give you tinnitus. That's usually temporary and reversible if you get rid of the underlying problems," she said.

However, it's very difficult to get rid of tinnitus that results from hearing loss, both Bauer and Novak said.

"The majority of people who have it, once they learn it's harmless, can tune it out," Novak said. "When someone can't tune it out, I've found biofeedback training to be the most effective."

With biofeedback, the goal is to decrease stress and anxiety levels that might contribute to tinnitus. The patient is taught to relax and to connect his or her state of relaxation to the gradual reduction of the tinnitus.

The therapy may require weekly sessions over several months. A psychologist conducts the biofeedback therapy. Up to 80 percent of patients find some relief of their symptoms, and 20 percent of patients may find total relief.

In addition to biofeedback, Carle plans to start later this spring a newer treatment called neuromonics. "That may have some promise," Novak said.

According to Neuromonics.com, the treatment makes use of a small, lightweight device with headphones that delivers precisely designed music embedded with a "pleasant" acoustic neural stimulus.

"These sounds, customized for each user's audiological profile, stimulate the auditory pathway to promote neural plastic changes. Over time, these new connections help the brain to filter out tinnitus disturbance, providing long-term relief from symptoms," according to the Web site. The treatment generally takes six months.

Bauer uses tinnitus retraining therapy, which uses a combination of low-level, broadband noise and counseling to make the patient no longer aware of their tinnitus, except when they focus their

Study may lead to insurance changes

Health insurance companies generally don't pay for tinnitus treatments because there are no studies showing that they are effective, said Dr. Carol Bauer, an otologist at the Southern Illinois University School of Medicine in Springfield.

Bauer hopes to change that with her latest clinical study on tinnitus retraining therapy, a common and popular form of treatment that involves sound therapy that can teach the brain to tune out the tinnitus so the patient doesn't notice it as much, Bauer said.

"The treatment has been around for 10 years, yet no one has done a very careful study examining how effective that treatment really is. Many people who take care of tinnitus

patients use that therapy, and we all report good success in our clinical practice. That doesn't hold any weight with insurance companies because it's anecdotal."

Bauer's study enrolled 40 patients with tinnitus in both ears. Half of them will receive tinnitus retraining therapy while the others will get a placebo treatment.

For 30 million Americans, tinnitus is constant and doesn't go away because it results from inner-ear hearing loss, Bauer said. For 5 percent, the tinnitus can be disabling.

"They focus all of their attention on it and can't put it in the background and ignore it," Bauer said. "The more you pay attention to it, the more annoying it is. For many peo-

ple when it first begins it's brand new, and like having a big elephant in the room.

"For the majority of people it becomes less noticeable or bothersome in the first six to eight months. The brain habituates to it."

Bauer, a graduate of the University of Iowa medical school, said she decided to specialize in tinnitus because it has not been treated very well.

"Certainly, when you can help people in that area they're extremely happy. It's very rewarding in that way. A lot of physicians don't like to take care of it because they feel there isn't anything they can do. There are things that you can do, but it just takes time."

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attention on it, and even then tinnitus is not annoying or bothersome.

One major problem for tinnitus sufferers, said Foltz, a 59-year-old lawyer in Monticello, is that most doctors are not trained to treat it.

"If you go to your general practitioner, he or she will refer you to an ENT (ear, nose and throat specialist), who will basically tell you, 'There is nothing that I can give you for it. You basically have to learn to live with it.'"

Foltz, who has not tried biofeedback, believing it wouldn't help in his case, sought treatment from various local doctors after his tinnitus worsened, to no avail. At one point he was told he might have acoustic neuroma, also called a vestibular schwannoma. It's a benign primary intracranial tumor of the myelin-forming

cells of the vestibulocochlear nerve.

A test showed he did not. He eventually went to Atlanta for treatment by a physician who specialized in tinnitus and he now sees a physician in Park Ridge on an annual basis.

Most health practitioners believe conditions such as TMJ (temporal mandible jaw disorder), sinus allergies, carpal tunnel syndrome, diet, stress and other factors amplify or exacerbate but don't cause tinnitus. Foltz said that in his case, he has been unable to draw any links between diet, environmental and other factors.

Novak calls tinnitus a medically benign problem and said therapies need to be harmless. Some treatments such as a medication that fills the inner ear ends up being worse for the patient than the tinnitus itself. He and Bauer believe other

remedies, such as naturopathic or herbal remedies, have a placebo effect and are a waste of money.

Novak noted that much research into tinnitus is being conducted because it is potentially such a substantial problem in the United States and other countries.

"I wouldn't be surprised to see effective drug therapy for people with severe tinnitus about 10 years from now," he said.

"It's just a matter of getting good information, and everything in a sense boils down to making sure you have an accurate diagnosis," Novak said. "You need a good hearing test by an audiologist, and somebody to interpret it and make sure that what you have is really harmless tinnitus and giving you options for what to do with it."

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ment of Veterans Affairs reported that nearly 400,000 veterans were on the rolls for service-connected tinnitus disability. That translates into \$539 million in compensation in 2006. By 2011, tinnitus disability payments

might climb to \$1.1 billion.

— Only \$2 million to \$3 million in private and public funding have gone to tinnitus research.

— The National Institutes on Occupational Safety and Health says the maximum allowable noise exposure is 85 decibel levels for 8 hours. Even at that, some people will sustain hearing damage.

— Cumulative noise exposure

even at "safe" levels can cause tinnitus over years.

— Everyday noises and their decibel levels and maximum allowable time exposures: City traffic and vacuum cleaners, 85 decibels, 8 hours; power lawn mower, 90, 4 hours; MP3 player, 105, 7 minutes; chainsaw, 110, 4 minutes; rock concert, 115, 1 minute or less; a piccolo, 120, 30 seconds or less.