Living With Tinnitus
– Sudden Hearing Loss

Advice for General Practitioners

ATA’s New Podcast Series
First Aid Tools & Information

Visit & Learn More About Tinnitus Online at ATA.org
ATA thrives through the dedication of a vast number of people, all of whom make a difference.

Join the Jack Vernon Legacy Society

Jack Vernon founded ATA in 1971 to lead the way in researching a cure, developing effective treatments, and creating broad-based support and awareness of tinnitus.

ATA invites individuals and organizations to join our journey. How can you contribute?

♥ Monthly or annual financial contributions
♥ Name ATA in your trust or estate
♥ Ask ATA to create a Tribute Page in memory of a loved one
♥ Convert stock and/or real estate into a unitrust
♥ Gifts of stock
♥ Gifts of real estate
♥ Deferred gift annuities
♥ Donations to ATA in lieu of flowers in memory of a loved one

We hope you’ll be a part of the legacy of securing silence for sufferers through a variety of cures, as well as finding treatments and sustained support for the millions who endure incessant noise and anxiety.

For more information about adding ATA as a beneficiary or ways to reduce your taxes through charitable contributions, please contact Torryn Brazell, ATA’s Executive Director, via email at: legacy@ata.org.
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Change is in the Air

One of the most frequent phrases heard by ATA staff is, “when will they find a cure???” It is usually spoken with all three question marks, denoting both anticipation and some degree of exasperation. The mission of the American Tinnitus Association reflects our members’ hopeful support. Nothing is more prominent on the website than the Research Toward a Cure Road Map. The ATA’s mission statement specifically includes research, education, advocacy, and collaboration. This is not only to find a cure, but also to ensure that we have all the necessary components to support the search for a cure.

In the meantime, ATA and its members exist to help us all live with tinnitus until a cure is found. We are currently in one of the most exciting periods of tinnitus care ever. We have more tools and more knowledge to assist in managing tinnitus than ever before. Even more exciting is the current research in tinnitus and tinnitus-related disorders. The British Tinnitus Association recently published the first edition of their Annual Tinnitus Research Review, edited by Dr. David Baguley and Nic Wray. In this publication, Dr. Baguley cites the increasing number of research publications in recent years: twice as many in 2015 as in 2006 and four times as many articles as in 1995. While we can’t project a date for a cure simply from increased publications or even comment about the quality of the research being conducted, this area has undeniably experienced increased interest and funding in recent years.

With all this in mind, Tinnitus Today will continue to bring you the latest research news and helpful strategies for living with tinnitus. In becoming editor, it is my goal to ensure that the information in Tinnitus Today is the highest possible quality, is meaningful to all our readers, and is free from bias or influence from any outside sources. The importance of this is paramount, as ATA must be a reliable and trusted resource for everyone living with and caring for those with tinnitus and related conditions.

We are also extending Tinnitus Today by adding an ATA podcast series on tinnitus, hosted by myself and my close friend and colleague, Dr. Dean Flyger. The first episode was an exciting conversation with Dr. David Baguley, researcher, clinician, and current President of the British Tinnitus Association. More podcasts will be available every other month and may be accessed via the ATA website at www.ata.org. You can read more about the podcast series later in this issue.

I realize that some of our readers do not use the internet and some others may be a bit daunted by accessing a podcast. However, this is essentially a radio program delivered online. If you have a relative or friend who can help you download or subscribe to the podcast, or can possibly bring it to you, I think you will be glad you did. There is nothing quite like listening to people talking about a subject. It becomes much more personal and relatable.

One of the most important functions of Tinnitus Today is to communicate. ATA has a long-standing history of bi-directional communication through its magazine. Not only do we prepare articles of interest to our readers, but our readers participate strongly in the creation of content for this magazine. I truly hope you will share your experiences and thoughts with us as well. If you have a story to tell or have questions about tinnitus, tinnitus resources, or about any of our stories, I hope you will contact me at: editor@ata.org.

Be well and thank you for reading Tinnitus Today. I can’t wait to hear from you.

Sincerely,

John A. Coverstone, AuD
Editor
Tinnitus Today Magazine
A Life Without Tinnitus

Can you remember what your life was like before tinnitus? For those of us who remember the occasion when our ears first began to ring (or hiss, or shriek or whistle, or whatever wretched sound most applies in your case), we suspect we know the cause—and rue that day like no other. “If only I had used earplugs when I started up that chainsaw,” we might say. “If only I hadn’t been stopped at that intersection when that car rear-ended me, and along with the whiplash came tinnitus.” If we don’t know the cause of our tinnitus, we moan, “What did I ever do to deserve this? My life before tinnitus was good and now tinnitus makes me so miserable. If only I had my own life back!”

This “if only” thinking can drive you nuts. It has the effect of directing your thoughts into the past, with all the might-have-beens and should-have-dones that could have avoided tinnitus. So along with the undeniable physical suffering that comes with your tinnitus, you burden yourself with the guilt of having brought it on yourself.

But another reason exists why “if only” thinking just makes things worse: It drives your thinking into the past. Every time you feel sorry for yourself, or blame yourself and go back in your mind to the day when you first got blindsided by this affliction, you never get past today, when you still have it. So back again you go: “If only this had not happened…” You have just trapped yourself in an endless loop—not just in your thinking, but in the emotions that go along with that thinking: Despair, hopelessness, self-pity, forever kicking yourself.

Is there a way out of this trap? The book *Man’s Search for Meaning* by Viktor Frankl offers an answer. Dr. Frankl was a psychiatrist who applied the lessons he learned in coping with extreme suffering in a Nazi concentration camp to a person’s experience in general. Each of our lives has meaning, he said. It is up to each of us to discover that meaning even while suffering. You can discover this meaning in life in three different ways, wrote Dr. Frankl: (1) by creating a work or doing a deed; (2) by experiencing something or encountering someone; and (3) by the attitude we take in unavoidable suffering. All these expressions of meaning look to the present and the future, not the past of “if only this had not happened that caused my tinnitus.”

In the present, you can examine your situation without the weight of all accumulated negative emotions. Looking to the future, you can accept the challenge of insisting that your life still has meaning, no matter the suffering you happen to be experiencing now. Just what that meaning is, of course, is a discovery that is up to you. That meaning will have nothing to do with tinnitus—making a life in the future without tinnitus.

That is what I like about the American Tinnitus Association. It is all about what we are doing now, in the present, to have an impact on our future. It’s looking forward, not back. New research, new therapies, new information you can use, new friends to offer each other mutual support—all of these are facets of the ATA that validate the premise that your life has meaning. Your future is worth fighting for and that future is a life without tinnitus.

Scott C. Mitchell
ATA Board of Directors

**New ATA Executive Director**

After an extensive search, as Chair of the American Tinnitus Association Board of Directors, I welcome Torryn P. Brazell, MS, CAE, as its new Executive Director and Chief Operating Officer. Brazell, former Managing Director of the American Board of Audiology, is a noted leader in the field of advocacy for audiology and credentialing, which ensures that all professionals—those licensed as well as those in training—have shared diagnostic skills and knowledge of standard treatment methods so patients receive the highest level of care.
It is ironic to call tinnitus a silent epidemic because silence is what many sufferers of the condition no longer enjoy. However, it is a silent epidemic in the sense that at this moment in time, millions struggle on their own, wondering if their condition will remain manageable or remain so debilitating that they will never have a reasonable quality of life again. This is a reality that the American Tinnitus Association is changing through increased research funding, global alliances, and the support of professionals and sufferers.

I am both proud and humbled to be a part of the ATA, which has been a publicly supported 501(c)(3) organization since 1971. In my former position at the American Board of Audiology, I was exposed to what I considered a crisis in tinnitus care, which is why I was drawn to the ATA. I observed that the public was unaware that there were resources like ATA that could help. I feel driven to dramatically raise ATA’s public profile so that anyone who hears about or suffers from tinnitus will turn to us for information and support.

The artwork of the tic-tac-toe suggests my desire to think creatively, strategically, and move outside of regular boundaries to become more innovative. I envision ATA being at the forefront of research funding, identifying endeavors that offer potential insight into more effective treatments and cures, as well as providing the most comprehensive source of patient support information.

It’s critical for the ATA to expand the number of skilled health-care providers to help tinnitus sufferers. There are many providers who can diagnose tinnitus, but not nearly enough who understand the multitude of treatments or even importance of the referral process for their patients to psychologists, otolaryngologists, audiologists, psychiatrists, pharmacologists, and so on.

Through my attendance at ATA tinnitus support group meetings, I’ve identified three areas of critical need where we can play a role. First, providing updates on current research and findings. Second, sharing information on self-management techniques and products that might mitigate symptoms. Third, creating a forum for sharing personal stories and struggles of sufferers. By sharing our stories, we can find solace through support and access to information that might help us reconfigure our lives.

In my ongoing effort to stay informed and involved, I’d like to invite you to share your thoughts and stories at: editor@ata.org.

Brazell holds an MS in Business and Organizational Management and a BS in Political Science from Oregon State University. She also holds Certified Meeting Professional and Certified Association Executive certifications. She is an active speaker on non-profit management issues, and serves as a member of the Assessment-based Certificate Accreditation Council, Institute for Credentialing Excellence.
**Ringing Getting Worse, What Should I Do?**

Some years ago I went to OHSU, Portland, Oregon, to have the ringing in my ears diagnosed. I gained no direct benefit from the visit, as I recall. As the years have passed, my ringing is now constant and louder. I do not wear hearing aids.

I am hoping that with the passing of years that there have now been advances that will help my condition. Please let me know how I should proceed. Thank you for your time and consideration.

— William L. Stroh

Thank you for sharing your experience with us. While I obviously cannot provide specific treatment advice through a magazine column, I know that your experience resonates with many of our readers. Many people develop tinnitus at a more benign level and then have tinnitus progress to the point where intervention is necessary. I highly recommend that you contact one of the many wonderful tinnitus professionals in the Portland area, some of whom are ATA members and listed in this magazine. As with any person who has bothersome tinnitus, you may wish to first speak with your primary care physician and/or Ear, Nose, & Throat physician to rule out any conditions that require medical treatment. Barring such conditions, the first step toward managing your tinnitus would typically be to locate an audiologist in your area who specializes in tinnitus. They will be able to perform the necessary examination of your ears and auditory function and discuss with you the appropriate options for addressing your needs.

Everyone here at the American Tinnitus Association wishes you the best as you work to regain control over your tinnitus. We sincerely hope that the content of the articles in this magazine, the information provided on our website, and the conversations in our new podcast will be of some help and comfort as you make this journey.

— Editor

**Great Article**

The article by Dr. Michael Robb about “Bayesian Informed Prior Probabilities” is, despite its off-putting title, one of the most useful articles that I have ever seen in “Tinnitus Today.” I have been looking for years for a comparison of treatments like this, and now I have it. This issue goes on my permanent reference shelf.

— Frederick Nobury

While the title may have been daunting, I am thrilled that you found the article so valuable! Dr. Robb is a highly respected physician amongst tinnitus profes-

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**Letters to the Editor**

The ATA encourages readers to write to editor Dr. John Coverstone, with comments on articles, podcast topics, items of interest, and general concerns. Letters selected for publication may be edited for brevity, clarity, and grammar. Letters should be sent to: editor@ata.org
Sirens blared in the background, causing Tina Powis-Dow to lose her train of thought as she sat in her kitchen thinking about the day ahead. “All of a sudden, I realized it was coming from me,” she said, describing the moment in the fall of 2014 as a terrifying epiphany. The calm she had embraced after recently leaving a highly demanding job was gone in a flash, and she was suddenly filled with angst and trepidation. Tina immediately called her sister, who insisted that she see an audiologist as soon as possible. That first encounter with a health-care provider set in motion an isolated and challenging journey.

“You have tinnitus,” Tina relayed, thinking back on the appointment, which felt like a declaration of diminished living capacity. “What was I supposed to do? My first choice was trying medication that wasn’t really effective,” she explained. “Live with it” was the message she took away. “They knew better than I did, and I wasn’t advocating for myself in that moment.”
Without support or effective medical advice, Tina delved into finding ways to contain the siren blaring in her left ear, which masked the tinnitus in her right. “It’s two different tones that fight with each other,” she said. She found a degree of equilibrium through playing the flute, singing in choir, exercising, and meditation. “I had to figure out how to deal with the chatter,” she said. “I felt like I had a lot of academics, a lot of work, but not much useful experience to get me through this,” she said, as she elaborated on how writing and meditation developed into effective tools. “I started studying Buddhism and took a mindfulness course. I was trying to figure out how I was going to relate to the world,” she recalled.

That journey became far easier when her family relocated to Memphis, TN, where she met Dr. Casie Keaton, an audiologist who specializes in tinnitus. “I fell in love with her,” Tina exclaimed. “She walked me through my hearing loss and explained what it looked like.” Through Keaton, Tina learned that her tinnitus was like a phantom limb, with the tinnitus expressing the loss of hearing.

“She gave me a bunch of options,” Tina said. One suggestion that had an immediate and positive impact was Sound Therapy. Utilizing the Rain Rain app, Tina slept through the night, something that had evaded her since that first siren sounded over a year prior. For meditation, she settled on the Calm app, which she draws on throughout the week, meditating anywhere from three to 30 minutes. “They are free apps and give me quiet head space,” she said.

By reframing the context of tinnitus, Tina began the daily practice of non-attachment. “Because the noise sounds like an alarm, it would trigger fear. Non-attachment lets me think of it as an OK sound.” By attaching no meaning to it, Tina began to make peace with it. “I was feeling fear from this noise. I was assigning a meaning to (it),” she said. “I have the answers,” she said, explaining how she now listens to the noise and assigns a different meaning to it. “Tinnitus is more like my buddy,” she says, laughing.

Reflecting on the last few years, Tina describes it as a spiritual journey that has taken her from a place replete with fear to a state of calm control. “It’s important for people to understand what’s happening in their bodies and with their hearing,” she emphasized. “You’re going to create a story (about it), and you’re going to change it.” To help others take control and redefine the context of tinnitus in their lives, Tina and Dr. Keaton are in the first steps of establishing a support group in Memphis.

One of Tina’s favorite distractions from tinnitus is playing the flute with her 10-year-old son.

**Everyone has a Story!**

**ATA Wants to Hear from You**

The ATA invites readers to submit their statements or stories—short or long—about living with tinnitus and/or hyperacusis for possible publication. We’d like to hear from patients, healthcare providers, and loved ones. Topics can include recapping how it was triggered; how you cope; what challenges you face; how it changed your life; how your loved ones manage; and so on. Suggested word length is between 50 and 600 words. Please include contact information, so staff can reach you for permission to publish, as well as for additional details. ATA reserves the right to edit for brevity, clarity, and grammar. Statements and stories can be sent by email to editor@ata.org or by mail to ATA, P.O. Box 5, Portland, OR 97207.
A study of tinnitus data from the 2007 Integrated Health Interview Series was recently published in the Journal of the American Medical Association Otolaryngology-Head & Neck Surgery. The Integrated Health Interview Series is conducted periodically by the National Institutes of Health to supplement the National Health Interview Series, a personal-interview survey administered by the U.S. Census Bureau and Centers for Disease Control and Prevention. Survey respondents were carefully chosen to reflect the demographics of the U.S. adult population (18 years or older), including gender, race, income, geographic area of residence, and other factors. The 2007 survey is the only to date which included extensive tinnitus questions. Authors Jay M. Bhatt, MD, Harrison W. Lin, MD, and Neil Battacharyya, MD, extracted the tinnitus data and performed a cross-sectional analysis of those reporting tinnitus on the survey. The extrapolated data indicated that 21.4 million people in 2007 had tinnitus within the preceding 12 months. A correlation was found between tinnitus and hearing loss, with risk of tinnitus increasing as hearing loss severity increases. An elevated risk of tinnitus was found for people with head injury, depressive symptoms, target shooting, arthritis, and use of non-steroid anti-inflammatory drugs. Troublesome tinnitus was correlated with higher rates of anxiety, depression, low self-esteem, and poor quality of life, when compared to people without tinnitus.

### Frequency of Tinnitus

- **Nearly constant**: 36.0%
- **At least once/day**: 15.0%
- **At least once/week**: 14.6%

### Extent of the Problem

- **No problem**: 31%
- **Small problem**: 41.6%
- **Moderate problem**: 20.2%
- **Big/very big problem**: 7.2%
Of the 21.4 Million (9.6%) of people in the United States reported tinnitus in the preceding 12 months, or roughly 1 in 10 people.

Treatment Options Discussed with Physicians

- **Medications**: 45.4%
- **Hearing Aids**: 9.2%
- **Other**: 29.5%
- **Nonwearable Masking Device**: 2.3%
- **Wearable Masking Device**: 2.6%
- **Biofeedback Therapy**: 2.8%
- **Tinnitus Retraining Therapy**: 3.0%
- **Alternative Medicine**: 3.9%
- **Music Treatment**: 4.0%
- **Stress Reduction Methods**: 6.7%
- **Nutritional Supplements**: 7.8%
- **Surgical Transection of Auditory Nerve**: 1.2%
- **Psychiatric Therapy**: 0.3%
- **Cognitive Behavior Therapy**: 0.2%

*Treatment not included in Academy of Otolaryngology-Head & Neck Surgery Guidelines for tinnitus management.

**Occupational Noise Exposure**

- **56.1%** had symptoms for longer than 5 years
- **27%** had symptoms for longer than 15 years

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<th>Prevalence</th>
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<td>12.9%</td>
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<td>&gt; 15 years</td>
<td>18%</td>
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I’m a professional cellist who has spent over 30 years teaching and playing in Houston, TX, without much worry about my hearing. Like other musicians, my primary concern has been overuse syndrome—in my case, my arms—due to the long hours of rehearsal and performances. That all changed July 29, 2015, as I stood in my brother’s garage shell shocked by the deafening explosion of his misfired gun. I was visiting him in Arizona, and we were having a great time until that moment.

Despite my confidence that the loud ringing would stop in a few hours, that wasn’t to be the case. Oddly, my brother’s hearing is fine. As my wife and I continued our summer travels, I kept hoping for the best. Days, weeks, months, and now years have passed with no respite from the loud ringing. It’s a strange injury, because there are no wounds to see. People just don’t understand it.
That September, when I returned to play in the orchestra pit of the Houston Ballet Orchestra, I was thunderstruck by a new problem, which I would later learn was called hyperacusis.

Despite the loud ringing, I could play in tune. Things seemed OK until the brass section came in loudly, causing distortion in my ears that prevented me from hearing my instrument and the others in my section. It was very distressing.

The hyperacusis has changed other things as well. I love to talk to people, but it’s difficult to carry on a conversation in a loud environment like a party or restaurant because of it.

That fall, I went to an ENT for help. He checked my hearing and found it within normal range, despite the fact that I was now constantly asking people to repeat themselves.

He was a young doctor working for a well-known physician, so I trusted his competence. I left with a one-week prescription for the steroid prednisone, which was intended to stimulate the little hairs in my inner ear.

After a few days I felt great, then the prescription ran out. I was in the middle of a performance when I felt so bad that I had to run out of the pit. I later learned I was experiencing 12 out of 13 of the side effects for withdrawal from prednisone. The doctor had called my treatment a “burst” because of its short duration, and had never heard of a reaction like mine. I found that dubious, and moved on.

My stand partner gave me the name of another doctor who had helped her friend with tinnitus. That doctor basically said, “You’ll just have to learn to live with it.” Determined to find a cure, I asked for a referral. She gave me the name of another doctor who evidently had a 50-percent success rate in treating tinnitus patients by injecting steroids directly into the inner ear. After hearing my story, he said the treatment wouldn’t work because my tinnitus was sudden onset, not gradual. “Besides,” he said, “injecting steroids into your inner ear hurts like hell.”

I tried hearing aids with masking features but couldn’t get used to them. Nothing helped.

I came to the realization that I would never enjoy just silence. Silence can be almost as beautiful as the music itself—the rest between notes is just as important as the music. The tinnitus also interferes with hearing the softer sounds, so I can’t enjoy that either. That’s the maddening part.

I’ll never be the same, but I get by. I love silence. I love music. I love nature. I run listening to music. I love hiking.

Last summer, I hiked up a mountain in California and didn’t think about the tinnitus, from morning till afternoon, because of the high winds. The wind blotted it out.

The noise, which I liken to the high-pitch buzz of cicadas, is so unsettling. When I wake up, I relive the trauma of that day and wonder what I could have done differently. I have sort of forgiven my brother for that gross misjudgment that day. But, there’s nothing I can do at this point, which is the problem.

My treatment is staying active and busy. I can’t be still. My wife, who’s a violinist, had hoped we’d be slowing down as we move toward retirement. I can’t—I have to keep going to do something with my ears to take my mind off the constant ringing.

I decided to share my story with ATA because the patient stories in Tinnitus Today have given me hope and make me feel like I am not alone. I hope my story helps someone cope with what they’re going through.
Reliable and efficient methods are critical to any desired outcome involving research. As scientists search for effective treatments for tinnitus, the methods they use can make the difference between finding a cure or not. A group of researchers that includes the Chair of the ATA Scientific Advisory Committee, Jinsheng Zhang, decided to take a step back and look at improving the methods used by tinnitus researchers.

The Food and Drug Administration requires that all drugs given to humans first must be tested on animals. Tests are conducted to determine safety, effectiveness, and possible interactions. However, testing auditory phenomena poses a special difficulty in animal models: How do you determine whether an animal has the condition? Researchers have developed methods for determining whether an animal has hearing loss, tinnitus, or other conditions they wish to test.

One method researchers commonly use is called “gap detection,” which takes advantage of a phenomenon known as the acoustic startle reflex. This reflex consists of muscular contractions. All mammals have this in response to loud sounds. In healthy animals, a silent gap in background noise before a loud sound results in a decreased acoustic startle reflex. Animals that develop tinnitus can no longer detect the silent gap before the loud sound and do not decrease their acoustic startle reflex.

The gap detection method has made significant contributions to tinnitus research. Some recent clinical studies prompted caution in interpretation of results, because other variables may affect their data. In gap detection, it is known that the startle reflex can naturally change during testing. Additionally, tinnitus perception, which can be quite complex, may not affect gap detection during every tested scenario. While further validation work is being conducted, it is beneficial to develop new behavioral tests to determine whether animals experience tinnitus. In their paper, the authors, from Wayne State University and the University of Windsor (Ontario, Canada), focused on an optimized method for detecting tinnitus that involves conditioned licking behavior of rats.

In their method, rats were trained to lick a spout for water during the presentation of sound. They also were trained to limit their licking during silence via occasional footshocks. After noise exposure rats increased licking behavior during silent periods. This suggested that they still heard sound, which was assumed to be tinnitus. Half of the noise-exposed rats demonstrated the same behavior seven weeks following exposure. The authors also tested this behavioral method using sodium salicylate to induce tinnitus. Rats that were injected with sodium salicylate also increased their licking during silent trials, but recovered to normal behavior after five days. The authors also showed that sham noise exposure (performing the same procedures but without the actual loud noise) resulted in no tinnitus-like behavior. In tests where reinforcements with footshocks were omitted, noise-exposed and sham-exposed rats did not show a fundamental change in tinnitus (or lack of tinnitus) behavior. In sum, the authors demonstrated that their new method can assess both onset and long-lasting tinnitus in individual rats. This will significantly aid research into the precise causes of tinnitus and drug development.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166346#ack
ATA Support Network Calendar

Patients can support one another by sharing personal experiences and providing a sympathetic ear. Attend a local support group and discover how fellow patients manage their tinnitus. To view all of ATA support group locations visit: www.ata.org/managing-your-tinnitus/support-network/support-group-listing

**California**

**North San Diego County**

Tinnitus Support Group
Rancho Bernardo Library
17110 Bernardo Center Dr.
San Diego, CA 92128
Contact: Eli Tyler
T: 951-505-9200
E: sedonaerdetv@aol.com
May 16—6:30 pm
June 20—6:30 pm
July 18—6:30 pm
August 15—6:30 pm
September 19—6:30 pm
October 17—6:30 pm
November 21—6:30 pm
December 19—6:30 pm

**San Diego**

Tinnitus Support Group
San Diego City Library
North University City Branch
8820 Judicial Dr.
San Diego, CA 92122
Contact: Loretta Marsh / Jack Innis
T: 658-581-9637
E: loretta.marsh@hotmail.com
E: jinnis1@san.rr.com
May 3—6:30 pm
June 7—6:30 pm
July 5—6:30 pm
August 2—6:30 pm
September 6—6:30 pm
October 4—6:30 pm
November 1—6:30 pm
December 6—6:30 pm

**Florida**

**Tinnitus Self-Help Group of Palm Beach County**
South County Civic Center
16700 Jog Road
Delray Beach, Florida 33446
Contact: Tracy Clark
T: 800-732-9217
E: tracyannclark2008@gmail.com
May 11—7:30 pm
Summer Recess: June through September
Schedule TBD: October through May 2018

**The Villages Tinnitus Support Group**
Churchill Recreation Center
2375 Churchill Downs
The Villages, FL 32162
Contact: Sal Gentile
E: tvtininnitus@gmail.com
April 27—3:30 pm
May 25—3:30 pm
June 22—3:30 pm
July 27—3:30 pm
August 24—3:30 pm
September 28—3:30 pm
October 26—3:30 pm
November—TBD
December 28—3:30 pm

**Missouri**

**St. Louis Tinnitus Support Group**
St. Louis County Library Headquarters,
East Room
1640 S. Lindbergh Blvd.
St. Louis, MO 63131
Contact: Tim Busche
T: 636-734-4936
E: tennisfancy@gmail.com
May 10—7:00 pm

**New Jersey**

**Tinnitus Self-Help Group in Ewing, NJ**
Ewing Presbyterian Church
100 Scotch Rd, Ewing, NJ 08628
Contact: Dhyan Cassie
E: dcassie@atsu.edu
May 6—10:00 am
June 17—10:00 am

**New York**

**Long Island Tinnitus Support Group**
Franklin General Hospital Medical Center
900 Franklin Ave.
2nd FLR Conference Room
Valley Stream, NY 11580
Contact: Anthony Mennella and Lisa Kennedy
T: 516-379-2534
E: aem830@verizon.net
April 24—7:30 pm
May 29—7:30 pm
June 26—7:30 pm
July 31—7:30 pm
August 28—7:30 pm
September 25—7:30 pm
October 30—7:30 pm
November 27—7:30 pm

If you’re looking to start your own support group or you have a group you would like listed, please email us at: tinnitus@ata.org

The ATA Tinnitus Support Group Manual is available online at www.ata.org to help you establish a group or plan your meetings.
Fall will be much quieter this year in Sonoma, CA, due to Measure V, which took effect in December 2016. The measure made Sonoma the 25th city in California to ban gas-powered leaf blowers and reflects a nationwide trend toward banning the devices to reduce noise pollution and unwanted gas emissions. It also coincides with recent improvements in electric leaf blowers and stronger, longer-lasting lithium batteries for battery-powered leaf blowers. Nonetheless, some cities are banning those devices as well, even though they are typically quieter and do not pollute.

Other noise-related laws around the country include prohibitions against devices that exceed specified noise limits and the requirement of noise-level labeling for power tools, as well as ordinances limiting noise levels in public places. Public interest in reducing noise pollution and exposure, as well as the increase in noise restrictions, is reflected in guidance to consumers from organizations like Consumer Reports, which makes recommendations on its website to check community noise restrictions and noise labels before buying devices like a leaf blower.

The Occupational Safety and Health Administration (OSHA) has

Noise ordinances are becoming more common; there is growing public awareness of the need to protect hearing while engaged in yardwork and woodworking projects.
established 80 decibels (dB) as the threshold for hearing safety. Any noise above that level poses a risk to the listener for hearing loss. The projected time in which hearing damage occurs decreases as the noise level increases. For instance, OSHA standards state that hearing loss can occur after eight hours of exposure to noise at 90 dB. However, if the noise is 95 dB, then the risk of hearing damage increases after four hours. The National Institute of Occupational Safety & Health (NIOSH) recommends a 3 dB exchange, meaning a 93 dB noise, such as a hair dryer or gas-powered lawn mower, is safe for four hours. A 96 dB noise (a tractor, for example) is safe for two hours.

While improvements in reducing the noise emission of gas-powered leaf blowers have been made, some still top 100 dB, making hearing protection mandatory when using them. It is common to see groundskeepers wearing hearing protection, but bystanders are not protected from the same blast of noise. Noise limits for leaf blowers are typically set at 65 dB at a distance of 50 feet, which is still loud enough to annoy people and make conversation difficult to hear.

The trend toward using quieter tools is not limited to leaf blowers. Most of us are familiar with the sound of a neighbor’s circular saw or router reverberating throughout the neighborhood. Circular saws, routers, grinders and many other tools reach noise levels ranging between 104-110 dB. This equates to only about 10 minutes of safe use before hearing damage can occur. Quieter versions are readily available.

Financial concerns are also fueling the trend toward quieter power tools, both commercial and residential. Commercial noise exposure is a significant risk for employers, who can save hundreds of thousands or even millions of dollars by investing in quieter tools and machines or by modifying work environments to be quieter. If factory workers, for instance, develop hearing loss after years of exposure to hazardous levels of noise, employers may be liable and forced to compensate them. Employers failing to meet OSHA safety standards for noise controls may also be fined.

Noise ordinances are becoming more common and there is growing public awareness of the need to protect hearing while engaged in construction work or woodworking projects. As a result, there is increasing pressure on manufacturers to produce tools with lower noise levels. Some products are already packaged with noise levels clearly labeled, even though there are no mandates or standards in the United States. In contrast,
This year the American Tinnitus Association joins most major and minor media outlets by offering additional content to extend the news and information provided in Tinnitus Today. Most print and radio news outlets have podcasts, an audio program designed to be accessible over the internet. A podcast is an audio file that you may access from a web server—either by listening directly from a webpage or downloading to your computer or mobile device.

In January, ATA launched Conversations in Tinnitus, an audio podcast exclusively about tinnitus research, tinnitus methodologies, and strategies for living with tinnitus. The program is hosted by Tinnitus Today editor, John A. Coverstone, AuD, and fellow audiologist, Dr. Dean Flyger, AuD.

Each episode features a conversation about various tinnitus topics between the hosts and a guest or guests. Conversations in Tinnitus is designed to be oriented toward people with tinnitus. According to ATA Executive Director Torryn P. Brazell, “In the past we offered webinars which were on a very high level, often very technical, and needed to be viewed on the ATA website. Podcasts offer us the ability to provide our members with a concise, casual conversation between expert professionals or an experienced individual with tinnitus and may be downloaded for listening anywhere, at any time.

“While some enjoyed the more technical nature of the webinars, relatively few people watched them. After listening to our members, we believe that a podcast format will reach many more people because of the accessibility and flexibility this format offers,” Brazell said.

How to Access Conversations in Tinnitus

A podcast is simply an audio file that you can access from a website. Podcasts usually can be downloaded from a website and played on your computer or sometimes played right on the podcaster’s website. Podcasts also can be downloaded directly to your laptop, phone, or music player. The latter two enable you to take the podcast on the go and listen whenever and wherever you want.

Subscribing—A Two-Step Process

1 To enable automatic downloads, you need to subscribe to the podcast. iTunes will allow you to subscribe to most podcasts and synchronize them to your mobile device. Non iPod/iPhone users will need a podcatcher, which is an app you can download from the Apple Store, Google Play Store or Windows Store. Podcatchers are often free, although better apps with more intuitive designs frequently cost $3.00 or $4.00.

2 Once you have a podcatcher, use the Subscribe feature in the app to search for Conversations in Tinnitus or type in the following URL: http://feeds.feedburner.com/tinnituspodcast

Your podcatcher app usually will check for new episodes and download them for you. Every two months or so, you will have new and exciting conversations about tinnitus waiting on your mobile device!
Poetic Reflection:

About My Tinnitus

By Olivia Morgan

In the serenity of the spring moonlight
I trudge my beach.
Wild geese serenade the creaming waves
And shrieks of plummeting gulls
Are triumphant calls to a late night supper.

On the shore two bickering dogs tangle together
And yelp their grievances.
I try to savor the sounds of sand-filled sanctuary
But my roaring ears out-yell all in nature
Mental warfare—and a bomb explodes in my
skull again
I weep and talk to my God, “Please Lord, just
one silent day.”

In bed that night
The sounds of wilderness
Rattle the walls of my tiny cottage.
The wind sucks greedily beneath the door
And my slumbering cat turns and sighs undis-
turbed.

I want so badly to really hear.
In the gale, even a banshee’s clear shriek
Could become to me music
But my own noises desecrate the moment
And I talk to my God again.
“Please Lord, just one silent hour.”

By day the schoolroom
Which used to shower me with delights
No longer works its magic.
The children’s singing
Is lovely as angels’ harps.
Yet my ears defile them.

In the playground
The clanging bells
Battle to out-din the youngsters’ shouts.
My noises deform and shatter all.
Symphony, slaughtered by strident cacophony
I pray to my universe, in pain
“Please, anybody, just one quiet minute!”

Olivia has had tinnitus in both ears as long as she can remember. Often
finding it unbearable, the 79-year-old grandmother of five and substitute
teacher for children with special needs, stays as busy as possible. Olivia
is looking for a support group in Monterey, CA, to make connections with
people who understand her challenges.

Call for My Journey with Tinnitus

The ATA invites readers to submit their stories about living with
tinnitus and/or hyperacusis for possible publication. Suggested word length is between
50 and 600 words. Please include contact information, so staff can contact you for permission to publish, as well as for additional details, if needed. ATA reserves the right to edit for brevity, clarity, and grammar. Stories can be sent by email to editor@ata.org or by mail to ATA, P.O. Box 5, Portland, OR 97207.
Former Chairman of the Board of Directors of ATA, Stephen Nagler, MD, FACS - personally & professionally endorses Sound Pillow Sleep System!

**Sound Pillow Sleep System**

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*The Sound Pillow Sleep System is an intimate sound conditioner. Preview our Content at: SoundPillow.com/Sound-Samples*

Call Toll Free: 877-846-6488  
Order Online: SoundPillow.com
Some people experience emotional or visceral ("fight or flight") reactions to certain types of sound—a condition known as misophonia. Misophonia is distinct from hyperacusis, which is physical discomfort caused by sound reaching a level that is tolerated by most people. Severe hyperacusis, however, will frequently result in some degree of misophonia. Misophonia can be severe and has been associated with sleep disturbance, reduced cognitive performance, and cardiovascular disease. The authors of a recent study from the University of Helsinki in Finland and Aarhus University in Denmark investigated ways to detect misophonia. They hypothesized that this condition may be related to how sound is processed in the brain.

The authors recorded brain activity in 71 healthy volunteers using electroencephalography (EEG), which records electric potentials on the scalp, and magnetoencephalography (MEG), which records magnetic fields to map brain activity. A mismatch-negativity (MMN) test was used to determine how the brain responds to certain sounds. The MMN test presents a series of sounds and occasionally inserts a distinctly different sound, called an “oddball.” The change in sounds can be observed as changes in the brainwaves. Observing these changes can help to determine how the oddball stimulus is processed in the brain. Specifically, the size and latency (how long after the oddball sound is presented) of the response are measured and indicate how the oddball sound is processed.

Currently, misophonia can be assessed through clinical discussion and questionnaires only. There is no method to detect it without relying on the patient’s subjective report (that is, it cannot be detected “objectively”). The present study used an oddball procedure to attempt to develop an objective test for misophonia. The primary sequence of sounds used for this study included piano tones. A variety of oddball sounds was used so that the researchers could measure the response of the brain to each different sound. In addition to the oddball sounds, the researchers created tones differing in pitch, intensity, rhythm, location, and a “pitch slide” (a sound changing in pitch as it is presented). Comparing the responses from EEG and MEG recordings, a negative correlation was found between response size for the oddball sounds and the reported misophonia; with more severe misophonia, response size became smaller. The MEG recordings additionally showed a correlation between other oddballs and misophonia.

The authors concluded that objective measures may be able to detect the presence of misophonia. Possible reasons for these results are that neural “gating” may be impaired in the part of the brain that processes sound. Gating refers to the brain’s ability to inhibit repetitive or ongoing sounds and enhance novel or new sounds. This inhibition leads to an impairment in the brain’s ability to filter out unwanted sensory stimuli. As research in this area proceeds, scientists may move from detecting and measuring misophonia to finding ways to treat the underlying cause.

Conversations about tinnitus and hyperacusis often begin with stories about patients, which are shared within small circles of professionals, caregivers, or sufferers. To broaden the dialogue and offer insights into efforts being made to improve patient care, provider education, and ongoing research, the ATA invited Dr. David Baguley, an internationally renowned audiologist and professor of hearing at the University of Nottingham, as its featured guest speaker for the launch of its podcast series, Conversations in Tinnitus. Baguley, a gifted communicator who advocates for greater collaboration on all fronts, offered an upbeat message in the 30-minute recording that explored the patient’s journey of living with tinnitus and hyperacusis.

To create a better framework for tinnitus or hyperacusis sufferers, Baguley spoke emphatically about the need of what he termed “first aid” tools and information. These would be given to patients within the first few hours and days of their diagnosis, because some patients leave a doctor’s office with the devastating and incorrect news that there is no cure, no hope and no support. “I’ve been really listening to my patients over the years. Once people realize they’re in trouble, they’re in a very challenging situation,” he said, referring to the many sufferers who experience disrupted sleep, difficulty concentrating, and anxiety over what the future holds. “Most of the information you can get in a hurry off the internet is really negative,” he said, explaining the impetus behind writing Living with Tinnitus and Hyperacusis, with psychologist Dr. Laurence McKenna and ENT specialist Dr. Don McFerran. “We wrote the book to pour into it the wisdom that we have about how you get some traction on the situation,” he explained to the co-hosts.

“I’ve had some wonderful communication with people who have used the book, and it’s been a lifeline for some of them,” he said. Baguley hopes the self-help book, which includes strategies for coping and suggestions for therapies, such as sound and relaxation, also will be a useful tool for medical providers and caregivers.

In helping patients come to terms with a condition that will most likely never be reversed, Baguley is trying to provide better information and resources to general practitioners [Editor note: see our reprint of the British Tinnitus Association’s “Tinnitus Guidance for GPs,” on pp. 28-29.] These physicians are typically the first to see patients who come to them complaining of ringing in their ears. “I have a very real compassion for both of those groups,” he said, explaining that most general practitioners receive limited training in audiology and perhaps one lecture on tinnitus. “I think these early clini-
TINNITUS TODAY  SPRING 2017 21
PODCAST SUMMARY

Do you have an Echo and want to listen to the new ATA podcasts? Just say “Alexa, play podcast Conversations in Tinnitus” and start listening.

The rise of support groups in the United States and Great Britain, he believes they play a critical part in helping sufferers adapt to living with tinnitus or hyperacusis. “I think at their best, they can be an invaluable system of support and care,” said Baguley, who suffers from mild tinnitus. “I think it’s really powerful to meet somebody who’s been on a tinnitus journey and is living with it, is managing it,” he said. He’s observed that British support groups are doing such things as screening potential tools and therapies by inviting guests who provide services, such as relaxation techniques, yoga, and aromatherapy to demonstrate their effectiveness at mitigating symptoms, so members can explore options before putting money into something. It’s a form of empowerment.

Realizing that patients are often stricken with anxiety, Baguley stressed that he hopes they’ll find comfort in the knowledge that researchers are trying to find answers right now. He noted there has been a shift toward cooperation, rather than competition, in the research community and this bodes well for progress and potential breakthroughs. He mentioned that there are several drug programs that are being revisited and reworked, as an example of that trend.

Recent international research that excites him came from a collaborative effort between a group in New Castle, U.K., and a neurosurgeon in Iowa, which involved a patient suffering from intractable epilepsy and severe tinnitus. In a last-ditch effort to control the epilepsy, neurosurgeons performed a craniotomy and recorded from the surface of the brain to locate the ignition focus of the epilepsy and remove it. “While they were doing these surface of the brain recordings, they recorded the gentleman’s brain activity with and without tinnitus,” Baguley explained. Those recordings allowed them to interpret what was happening deep inside the brain, which Baguley likened to how an oceanographer uses ocean stenography to tell from the surface of the ocean what’s happening on the ocean floor. Direct recordings are significant because of their clarity, which cannot be replicated by fMRI scans. Critically, they allow for recording with and without tinnitus, which reveals what is happening deep within the brain.

“They found three different, new brain networks that dealt with the tinnitus,” he said. One was the actual signal itself that was being driven through the man’s brain; another was an attentional network, involving parts of the brain paying attention and monitoring; and the third was a tinnitus memory network that remembered and expected to hear it. “That last one is very interesting, because I have a number of patients who say to me, ‘I don’t have tinnitus when I wake up, and then I listen, and it comes back,’” he said. “It’s as if the brain remembered it.” While Baguley clarified that the discovery of the memory network is a proposal and not a full theory, it represents an important breakthrough in understanding what is physically and physiologically happening in a patient’s brain when they have severe and troublesome tinnitus.

No one expects a quick fix for tinnitus and hyperacusis, but Baguley believes the path for finding a cure and enabling sufferers to reclaim a higher quality of life will be found through more active and ongoing collaboration across all fronts, with careful consideration of what works and why. Toward that end, the ATA hopes its podcasts will be a powerful tool in disseminating information that supports that journey, because it is indeed a journey being traveled by many.
For decades, it has been assumed that the mechanism for sensorineural hearing loss was damage to hair cells in the cochlea, the sensory organ for hearing. Research in recent years has identified a new culprit: The synapse between the hair cells of the cochlea and the auditory nerve. This degeneration of the neural synapse is called synaptopathy. Research has indicated that synaptopathy may be the cause of presbycusis (age-related hearing loss), noise-induced hearing loss, and reduced speech understanding before hearing loss is even detected. The last condition has been called “hidden hearing loss” because it occurs when hearing is normal when measured by audiologists.

In a study published recently in *PLoS ONE*, researchers from Harvard and Massachusetts Eye & Ear Infirmary recruited 71 normal hearing and healthy subjects, 18-41 years of age, and used a survey tool to identify risk of noise exposure. Participants were identified as having high or low risk, according to the amount of noise exposure they reported and the consistency with which they used hearing protection. They also were asked to rate their level of annoyance to different everyday sounds. A variety of clinical tests were conducted and statistical analyses performed to determine which tests predicted hidden hearing loss.

All participants had normal hearing when tested in the standard frequency range (250-8000 Hz), and hearing levels were similar between low and high risk groups. They also had normal otoacoustic emissions (OAEs), which measure function of the outer rows of hair cells in the cochlear. However, the high-risk group had poorer hearing for frequencies above 8000 Hz, which is not routinely tested during audiology exams. Subjects also were tested using electrocochleography (ECoG), which uses rapid click stimuli to measure electrical potentials that are generated by hair cells stimulating the auditory nerve endings in the cochlea. ECoG looks at two potentials in the cochlear: The Summating Potential (SP), which is the result of electrical potentials generated by the hair cells; and the Action Potential (AP), which is generated by activity from the auditory nerve. Clinicians typically measure the ratio of the SP and AP to diagnose disease in the ear or determine whether hearing loss occurs in the cochlea or the auditory nerve. In this study, the SP/AP ratio was almost twice as large in the high-risk group as it was in the low-risk group.

The results of this study indicate that standard clinical tools may be able to diagnose synaptopathy in the cochlea, although neither high frequency hearing tests nor ECoG are typically used in this fashion. People with normal hearing who express increased sensitivity to everyday sounds or who complain of difficulty understanding speech may be identified with cochlear synaptopathy, if these tests are used when standard hearing test results are normal.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0162726
Inaugurated in 1927, Better Hearing and Speech Month is designed to raise awareness about communication disorders and the importance of early intervention. Share this message with friends and family, and encourage them to have their hearing checked. Early detection can ensure that treatable problems are resolved quickly.

Listen to ATA’s New Tinnitus Podcasts—Anywhere @ Anytime

In February, ATA launched Conversations in Tinnitus, an audio podcast exclusively about tinnitus research, tinnitus methodologies, and strategies for living with tinnitus.

Each episode features a 20-30 minute conversation about various tinnitus topics based on the area of expertise of the guest. Conversations in Tinnitus is designed to be oriented toward people with tinnitus, and is delivered in a concise, casual conversation between expert professionals or an experienced individual with tinnitus.

Podcasts can be downloaded from a website directly to your computer, smartphone, or music player. Have an Amazon Echo? Say “Alexa, play podcast Conversations in Tinnitus,” and the latest podcast episode will start to play. iTunes will allow you to subscribe to the podcasts and synchronize them to your mobile device.

A podcatcher app can be downloaded from the Apple Store, Google Play Store, or Windows Store. Podcatchers are often free. Once you have a podcatcher, use the subscribe feature in the app to search for Conversations in Tinnitus or type in the following URL: http://feeds.feedburner.com/tinnituspodcast. Every two months or so, you will have new conversations about tinnitus waiting on your mobile device!
Imagine losing almost all of your hearing suddenly and irrevocably. Now add tinnitus into the equation at a nonstop, high-pitched 9,000 Hertz and 80 decibels. The tumult that would cause in your life is unimaginable for most of us. However, it is a reality for Randy Phillips, the Vice Chair of ATA’s board of directors.
Randy Phillips lost his hearing in 2008. “It was autumn in New York City, and I was taking some time off work between assignments,” he shared. “As my wife and daughter and I walked into a theater one evening, instantly—I mean instantly—I lost all the hearing in my right ear and a significant amount of my hearing in the other ear.

“I thought I had earwax—that something was plugging up my ear. I went to my physician the next morning and after 15 minutes, he said, ‘You need to go see this ENT, and after that go to this audiologist. If they tell you to go to an otolaryngologist, then see this one. You can do that fairly easy in New York City.’

“It was a whirlwind,” he continued. “All I remember is telling my doctor, ‘I’ve got tickets to the Lincoln Center jazz orchestra tonight, so can you just fix this and make it work again?’”

Phillips ended up at an otolaryngologist that same day for a series of unpleasant medical procedures, trying to find a way to restore hearing in his right ear. At the same time, he developed acute tinnitus in that ear.

The ensuing pursuit of a solution left Phillips—a successful corporate executive with a background in software and engineering—and his doctors stymied. During the years of surgical procedures and visits to specialists for his hearing loss, he discovered that there is currently no cure for tinnitus, even though it affects millions of Americans.

“We looked at it and tried to fight through it all,” he said. “We could not figure out what happened and finally, my otolaryngologist said, ‘Look, I think it is from a virus you picked up in China [after living there for two years], and you are never going to get your hearing back. So, let’s figure out what we can do.’”

Phillips said that the focus on his deaf right ear was so concentrated that he didn’t realize the full scope of his problem until he visited the University of Maryland—well-known for its work in audiology. At Maryland, he met LaGuinn Sherlock, AuD.

Dr. Sherlock asked me, “Has anyone ever told you that you have lost a lot of hearing in your left ear, your good ear?” I said, “No.” She said, “I think if we can help your hearing there, that will give you some way to get through life. Otherwise, you are just going to be struggling.” Dr. Sherlock’s help was significant.

As he processed this diagnosis and began to explore solutions, he discovered how little the broad medical community knows about tinnitus.

“I was looking around for solutions, and I was shocked how little clinicians, physicians, and specialists—otolaryngologists, audiologists—knew about tinnitus or, perhaps, what they could do to help fix it,” Phillips said. “I see tinnitus like any other major disease, such as heart disease or cancer; we need to invest now for the future, for the next generation.”

Tinnitus in general is poorly understood. Most people will experience ringing in their ears at some point in their lives. This is most commonly after loud events, like concerts. However, about 50 million Americans experience acute tinnitus. About 16 million experience chronic tinnitus and, of those, 2 million have severe and debilitating tinnitus.¹

Phillips says, “That is a reasonable percentage of our country with this problem, but I can’t count on one full...”

¹ As cited on www.ata.org/understanding-the-facts, taken from data derived from the 2011-2012 National Health and Nutrition Examination Survey, conducted by the U.S. Centers for Disease Control and Prevention.
hand the number of research centers or research hospitals that are doing anything significant to try to help solve or manage this problem. I told my wife once that I wish that there was something sticking out of my ear so people would realize there is something wrong.”

The psychological effects of tinnitus can be devastating. Phillips compares it to living in constant pain, which can be debilitating at a psychological level. “My wife and I have talked about this, because she has suffered through it with me,” he said. “I call it a phantom pain. Like someone who loses a limb, but can still feel it. For me, this ear is deaf, but it is trying to hear. It is ping pong all the time… trying to hear. My brain is manufacturing this sound—this tinnitus.”

Phillips sensed he had a responsibility to be an advocate because of an encounter he had during his search for help. “Deep down I am an engineer (and) scientist, even though I am a corporate executive now. I want to help find the root cause and what can be done about it.” He cited a shocking encounter as spurring his desire to find a cure or treatment. “I went to one of the best-known hospitals on the East Coast, because I heard there was a physician there who was really good at tinnitus retraining therapy. The doctor I went to see wasn’t in, so they passed me off to another,” Phillips recalled. “I told him the problem. I kid you not, the doctor—an otolaryngologist—said, ‘Look, one of three things is going to happen to you: 1. It is just going to go away; 2. It’s going to be nasty for the rest of your life, and you will end up being disabled; or 3. It’s going to be so bad that you are going to kill yourself.’”

“I said, ‘Two of those three don’t work for me.’ I was shocked—this was a senior otolaryngologist at a well-known research center.” For Phillips, who started with a bone-anchored hearing aid, known as BAHA, and moved to a cochlear implant, these aids have helped with his tinnitus. With the cochlear implant, he now has spatial separation of sound, which he didn’t have for seven years.

While medical treatment has enabled him to manage his condition better, he also finds that being outdoors playing with his dog or on the golf course helps. When he is outside, sound doesn’t bounce, and when he is focused on playing golf, the tinnitus is less noticeable. On the other hand, being in a noisy environment, like a restaurant or in an airport, is difficult for him. “I call tinnitus a hidden condition, because when you look at someone, you have no idea they have this monstrous ringing going on in their head 24/7,” Phillips said.

“Hopefully, we will be able to find a cure for it, a way to remediate it or a way to train people to cope with it more effectively,” he said. “I hope to help the ATA continue with the solid work they have been doing and to help find a way to ratchet up awareness and education for both sufferers and audiologists.”

Phillip’s story mirrors the stories of millions of others living with this condition, who often experience a series of steps forward and back as they seek treatments and continually tweak techniques for ameliorating the incessant sound. His experience, enthusiasm, and business acumen are a valuable addition to the ATA leadership in our mission to find a cure for tinnitus.
Tinnitus Guidance for GPs

This document was created by the British Tinnitus Association (BTA) to support GPs who see patients with tinnitus.

Tinnitus Red Flags
Firm indications that a patient with tinnitus should be referred onwards include:

- **Pulsatile tinnitus**
- **Tinnitus in association with significant vertigo**
- **Unilateral tinnitus**
- **Tinnitus in association with asymmetric hearing loss**
- **Tinnitus causing psychological distress**
- **Tinnitus in association with significant neurological symptoms and/or signs**

Although many tinnitus patients do not fit into any of these imperative categories, clinicians involved in tinnitus care are firmly of the opinion that all patients with the symptom should at the very least receive an audiological assessment. Local factors will determine whether this is undertaken in primary or secondary care.

At Any Point In Time Around 10 Percent of the Population Experience Tinnitus
Both sexes are equally affected and although tinnitus is more common in the elderly, it can occur at any age, including childhood. The perceived sound can have virtually any quality—ringing, whistling, and buzzing are common—but more complex sounds also can be described.

Most Tinnitus Is Mild
In fact it is relatively rare for it to develop into a chronic problem of life-altering severity. The natural history of tinnitus in most patients is of an acute phase of distress when the problem begins, followed by improvement over time. But for a minority of patients, the distress is ongoing and very significant, and they will require specialist support.

Underlying Pathology Is Rare, But Be Vigilant
In many cases, tinnitus is due to heightened awareness of spontaneous electrical activity in the auditory system that is normally not perceived. It can, however, be a symptom of treatable and significant otological pathology, such as a vestibular schwannoma or otosclerosis.

Tinnitus Can Be Associated With A Blocked Sensation
For reasons that are not clear, tinnitus and sensorineural hearing loss can give rise to a blocked feeling in the ears despite normal middle ear pressure and eardrum mobility. Otoscopy and, if available, tympanometry can exclude Eustachian tube dysfunction. Decongestants and antibiotics are rarely helpful.

Giving a Negative Prognosis Is Actively Harmful
It is all too common to hear that patients have been told nothing can be done about tinnitus. Such negative statements are not only unhelpful, but also tend to focus the patient’s attention on their tinnitus and exacerbate distress. A positive attitude is generally helpful, and there are many constructive statements that can be made about tinnitus, such as “Most tinnitus lessens or disappears with time;” “most tinnitus is mild;” “tinnitus is not a precursor of hearing loss.”

There Is No Direct Role For Drugs
Although they can be used to treat associated symptoms such as vertigo, insomnia, anxiety or depression, there are no conventional or complementary medications shown to have specific tinnitus ameliorating qualities. In addition, there is anecdotal suggestion that repeatedly trying unsuccessful therapies worsens tinnitus.

Referral Routes For Tinnitus Patients
Referral routes vary and depend on local protocols and commissioning, but in the majority of cases referrals are directed to ENT or audiology services. Common sense dictates that when there are possibilities of self-harm or of psychological crisis, then urgent mental health support is indicated.

Tinnitus Is More Common In People With Hearing Loss
Tinnitus prevalence is greater amongst people with hearing impairment, but the severity of the tinnitus correlates poorly with the degree of hearing loss. It also is quite possible to have tinnitus with a completely normal pure tone audiogram.

Hearing Aids Are Helpful If There Is Associated Hearing Loss
Straining to listen can allow tinnitus to emerge or, if already present, to worsen. Correcting any hearing loss reduces listening effort and general-
ly reduces the level of the tinnitus. Hearing aids are useful even if the hearing loss is relatively mild and at a level where aids would not normally be considered. Some modern hearing aids have sound therapy devices incorporated within the aid specifically for tinnitus patients. Department of Health guidelines have emphasized the value of audiometry in a tinnitus consultation, and this is the definitive basis for decisions about hearing aid candidacy. If in doubt, refer for an audiological opinion. In our view, all people who describe tinnitus deserve an audiological assessment. Decisions on when to start using a hearing aid and what sort to use are up to the individual patient and audiologist.

**Avoiding Silence Is Helpful**
Having continuous, low level, unobtrusive sound in the background can reduce the starkness of tinnitus. Sounds can be quiet, uneventful music, a fan, or an indoor water feature. Alternatively, there are inexpensive devices that produce environmental sounds and these are particularly useful at bedtime.

**Self-Help Is Often Effective**
The BTA provides comprehensive information on tinnitus and common sense advice on managing symptoms. It also has a network of tinnitus support groups around the country. The BTA also has produced a new online resource aimed specifically at patients who have recently developed tinnitus and want some simple, clear information and advice: Take on Tinnitus, takeontinnitus.co.uk includes facts, tips, exercises, and videos that give patients ideas for self-management.

Please do pass on the details of the Take on Tinnitus website to your tinnitus patients, so that we can help you provide the support they need in the early stages of tinnitus management.

**Further Information**
If you would like further copies of this document or any other of the BTA’s leaflets please contact us:

**British Tinnitus Association**
Ground Floor, Unit 5
Acorn Business Park
Woodseats Close, Sheffield S8 0TB
Website: tinnitus.org.uk

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**General Practitioners Urged to Become Tinnitus-Aware**

Almost every person with troublesome tinnitus knows the story firsthand. You develop a new sound in your ears. You think it will go away after a short while and, when it doesn’t, you consider talking to your family physician about it. You may or may not have done extensive research online, much of which is misleading (as is most health care advice online) and even downright frightening. When you finally make the appointment and mention that you have this annoying sound that just-won’t-stop, you hear the phrase that is almost a rally cry for those with tinnitus: “I’m sorry, there's nothing that can be done. You will just have to live with it.”

For millions of people with tinnitus around the world, this story is far too familiar. Organizations such as the American Tinnitus Association, the British Tinnitus Association, and other national and local associations and support groups work tirelessly to raise awareness of tinnitus among healthcare providers. In February 2017, the British Tinnitus Association released advice for general practitioners, including a two-page handout that may be downloaded via PDF or requested in print from BTA online at www.tinnitus.org.uk. The handout is specifically targeted to GPs, who see hundreds of different conditions each week and need guidance that is concise, easy to reference, and provides specific advice for patients and options for treatment.

The guidance document is reprinted with permission from the British Tinnitus Association. It includes advice for recognizing tinnitus, what to communicate to patients—including the dangers of negative counseling, what can be done by patients themselves, and when to refer for treatment. BTA invites readers to distribute the article to GPs in their area and spread the word about tinnitus to family physicians who are frequently the first to encounter patients experiencing troublesome sounds associated with tinnitus.

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**Reprinted with permission.**
Summary by John A. Coverstone, AuD

A recent article describes a new pathophysiology for hidden hearing loss: Demyelination of the auditory nerve. As a child grows, his or her nervous system develops a coating of proteins and phospholipids, called myelin, around many nerve cells. This insulating material leads to increased speeds of nerve conduction and is essential for a normal-functioning adult nervous system, including for sensory nerves such as those located in the ear. This myelin sheath in peripheral nerves is created by cells named Schwann cells, after Theodor Schwann, the German physiologist who first described them.

The authors, from the Kresge Hearing Research Institute at the University of Michigan, investigated the effects of Schwann cell loss within the cochlea of mice. They noted that it caused a rapid demyelination of the auditory nerve, which was followed by regrowth of the Schwann cells and a period of remyelination. However, this temporary loss of Schwann cells and the resulting loss of myelin around the auditory nerve caused permanent disruptions in the first heminode of the auditory nerve cells. Heminodes are the site where the electrical impulses of the auditory nerve begin after sound stimulation. The first heminode is closest to where the nerve terminates on the inner hair cells of the cochlea (the sensory cells which are responsible for hearing). This mechanism did not affect that synapse between the auditory nerve and hair cells, which has previously been described as the origin for hidden hearing loss and tinnitus. In fact, these two mechanisms—loss of synaptic function and damage to the auditory nerve—are distinct but may have an additive effect if each are present.

The authors theorized that mice subjected to this procedure would lose significant hearing immediately after the Schwann cells were ablated, but would regain hearing as the cells regrew and remyelinated the auditory nerve cells. Tests of outer and inner hair cell function showed they were not affected by the lack of myelin around the auditory nerve cells. However, measurements of the electrical potential of the auditory nerve (ABR, peak 1) was permanently and significantly reduced and slower. Clinicians frequently use a measure called electrocochleography (ECoG) to indicate function of the inner hair cells of the cochlea. ECoG can be used to measure the ratio of the summating potential (generated by inner hair cells in the cochlea) and action potential (generated by auditory nerve signaling) to diagnose cochlear disease. The researchers in this study identified no effect on the summating potential, but a prolonged, possibly permanent, effect on the action potential. This resulted in a decreased SP/AP ratio.

Clinicians may be able to use the information and tools described by this study to determine the exact type of hidden hearing loss a person has and recommend the most appropriate treatment options. This is primarily determined by the significant change in latency of sound transmission in the case of demyelination, whereas synaptopathy does not show this change. While there are currently no treatments to heal either type of damage, audiologists may be able to provide counseling and direct patients toward options that help to overcome hidden hearing loss and improve communication. Future research may lead to a cure for either type of hidden hearing loss and associated tinnitus.

http://www.nature.com/articles/ncomms14487
Why Do Some Professionals Hesitate to Provide Tinnitus Care?

By Joy Onozuka

Doctors spend their lives dedicated to helping patients, so why are so many tinnitus and hyperacusis patients told that nothing can be done to help them? According to Dr. Richard Tyler, a professor at the Department of Otolaryngology Head and Neck Surgery and the Department of Communication Sciences and Disorders at Iowa State University, the basic problem is the lack of reimbursement for treatment. Since there is no pill or surgery that can solve either condition, coupled with no insurance coverage, doctors hesitate to focus on the field or provide care. This perpetuates a fundamental lack of understanding on available treatment options, according to Tyler in his March Conversations in Tinnitus podcast interview.

Dr. Tyler’s conference, now in its 25th year, has gone a long way toward the training of clinicians. He is adamant that support groups, patients and organizations like the ATA need to advocate for reimbursement for clinicians in addition to advocating for better training and research. “The help is there, but not the reimbursement,” he emphasized.

The result is the wealthy are getting treatment, while the poor are not. With tinnitus and hyperacusis listed as top complaints among veterans, Tyler feels concerted action is required to put this issue on the radar. “Professionals involved in helping tinnitus patients should try and help society appreciate the importance of tinnitus and how it can have a major impact on someone’s life,” he said. “The AMA (American Medical Association) guidelines are ludicrous and underplay the significance.” Current AMA guidelines, he says, allow for tinnitus compensation if a patient has hearing loss, which doesn’t always happen. The maximum support is 5 percent, which grossly underestimates the degree of suffering of millions. “People may commit suicide because they have tinnitus,” Tyler stressed.

When money is involved it naturally spurs change. Tyler noted that when the state of Iowa began compensating for noise-induced tinnitus, independent of hearing loss, factory conditions improved. “The technology has been around for decades, but it’s only in the last four or five years that factories are taking action. Now it costs them money to reimburse their workers, because they have not just noise-induced hearing loss but also noise-induced tinnitus.”

This conversation on tinnitus represents a call for action at the grass-root level, because far greater resources—in reimbursement, training or research—are required if widespread treatment and awareness of tinnitus and hyperacusis are to be achieved. What are your thoughts on this issue? Please email: tinnitus@ata.org

Management of the Tinnitus & Hyperacusis Patient

The 25th Annual International Conference, Management of the Tinnitus & Hyperacusis Patient, will be held June 15-16, 2017, at the University of Iowa. The event is intended for otologists, audiologists, hearing-aid specialists, psychologists, and other healthcare professionals providing clinical services for patients. Topics will include an overview of current evaluation and management strategies and research, as well as an array of presentations on such topics as sleep therapy, vestibular links to tinnitus, and an NIH trial on tinnitus retraining therapy. Since its inception, the conference has been designed to increase knowledge and skills of clinicians. Patients with tinnitus and/or hyperacusis and their families and friends are welcome to attend, with the understanding that no individual diagnosis or treatment will be offered. Further information can be accessed online by visiting the University of Iowa’s website, https://medicine.uiowa.edu/oto/education/conferences-and-events/international-conference-management-tinnitus-and-hyperacusis

The ATA is a Diamond Sponsor of the conference.
When making an appointment, please say you learned about patient providers through the ATA website or *Tinnitus Today* magazine. With this information, providers understand the value of being a part of the ATA network of patient support.

### Professional Members

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**NEW! Spotlight on Patient Providers**
Member Survey Results

The ATA would like to thank the 250+ readers who returned our Member Survey, which was in our Winter 2016 publication. Results are being reviewed to determine which issues and research endeavors are of greatest concern to our readership.

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The Journey: Treating Patients with Severe Tinnitus

By Joy Onozuka

During the Conversations in Tinnitus discussion between Dr. David Baguley and co-hosts Dr. John Coverstone and Dr. Dean Flyger, there was discourse on the challenges that audiologists face as they try to help patients who have more severe tinnitus and hyperacusis. To give voice to that seldom discussed topic, we’ve included a short synopsis here.

There is a concerted effort to create broader public awareness of tinnitus and hyperacusis and to better prepare general practitioners for working with tinnitus and hyperacusis patients. General practitioners are typically the first ones to meet patients seeking help for problems with their hearing. However, the challenges that the individual audiologist face are not typically considered. Without peer support, Dr. Baguley argued audiologists are setting themselves up for problems. The podcast co-hosts, both of whom are audiologists, agreed. When working with the estimated 10 percent of patients with more acute tinnitus and hyperacusis, more comprehensive training and care are needed, because those patients often struggle with the complicating factors of sleep deprivation, anxiety, and depression.

“If you’re a psychologist who works with people who are anxious or upset, or who have been traumatized, you have to have some supervision,” Dr. Baguley said, noting that it is considered good practice around the world. “When I tell psychologists that audiologists don’t generally do this, they say, ‘What? You’re crazy.’” Dr. Baguley felt compelled to act.

To provide support and peer networking opportunities for tinnitus clinicians in the U.K., he began establishing regional chapters that meet twice a year, to give doctors a forum to discuss research, journal articles, and patients. “(Doctors) ask all sorts of questions and share good practices in a really open and honest way,” he said. “The groups have plugged them into a community.” Because of the frustration that often comes with being unable to provide a cure or significant relief for patients, a burden is alleviated through talking with other clinicians facing the same challenges, he said. Today, every region of the U.K. has such a network.

It was noted that there also is a trend in the United States toward greater awareness of the complexity of treating patients with more severe tinnitus and hyperacusis. An audiologist can specialize in adults, pediatrics, geriatrics, hearing and hearing aids, cochlear implants, or balance disorders but only be exposed to a small number of patients with tinnitus and/or hyperacusis. As a result, they may be unaware of the personal struggles that patients are experiencing. “Unless you have been educated on the signs of depression and when to make the appropriate referrals... you’re doing a real disservice to your patient and you may even be endangering his or her life,” said Dr. Coverstone. “This is a very specialized area for audiologists and we’re not necessarily used to being well-versed in those areas of psychology, depression, and such things, so it’s a little difficult for us.”

Dr. Baguley, being determined to find as many avenues as possible for disseminating relevant information, began focusing on how other professionals learn about illness related to their fields through sources other than medical. For instance, he noted that psychiatrists and neurologists readily turn to depictions portrayed in literature, drama, and film. This spurred him recently to write a chapter on tinnitus as it is characterized in literature, film and music. “There’s quite a lot... people sometimes in crisis, sometimes dealing with it, sometimes mentioning it off-hand,” he said, referencing Woody Allen’s film “Hannah and Her Sisters” and music by Bob Dylan. “It’s very interesting and made me think quite deeply about the situation,” Dr. Baguley said.

The opportunity to listen, observe, be heard, and learn from others—be it within the context of popular culture, a doctor-patient relationship, therapeutic support setting, or through a professional gathering—is critical for gaining perspective, diffusing stress, and fueling motivation to keep moving forward and improving.
sionals, and he packed a wealth of information into a rather brief article. The information he presented is very much what those of us in clinical practice assimilate from research and personal experiences to make the best choices for patient care. In the Bayesian Informed Prior Probabilities table (which is a fancy way of describing how past theories are updated with current information), Dr. Robb did an excellent job of aggregating a significant amount of data which is critical to the proper care of patients with tinnitus. Dr. Robb provided excellent summaries of the difficulty of studying tinnitus and treatments for tinnitus, the placebo effect in research (which is incidentally a significant effect in tinnitus treatment also), and the effects of negative counseling for those with tinnitus. I highly encourage readers who may have balked at the title to return to the Winter 2016 issue in print or on the ATA website and read again Dr. Robb’s informative and thought-ful article. I also hope he will be encouraged by your comments and agree to write for us again!

— Editor

Continued from page 5

the European Union requires that all devices bearing the CE mark that exceed 70 dB output, include the sound level for usage at a workstation (rather than in a lab or treated room) in the user manual. As standards by the International Organization for Standardization and, to a lesser extent, the International Engineering Consortium are increasingly adopted by countries, U.S. consumers are reaping benefits. Many U.S. companies manufacturer power tools for sale both domestically and abroad. In order to complete—or possibly even to sell—in other markets, companies are already re-engineering tools to be quieter. If new products do not comply with other countries’ regulations for labeling or sale of power tools and equipment, it will not be profitable to produce tools for sale in those markets.

When purchasing new tools, consumers are encouraged to research noise levels to guard against hearing damage and noise pollution. NIOSH has made this process easier by maintaining a database on power tool noise levels, which can be viewed at https://wwwn.cdc.gov/niosh-sound-vibration. It contains verified noise ratings for many power tools from a variety of manufacturers. However, it does not yet include leaf blowers and similar yard equipment devices. The database includes filters for tool type, manufacturer, and technical specifications, like a 10-inch blade versus a 12-inch blade.

Over the years, NIOSH has made it easier for consumers to understand actual noise levels and safe limits of exposure by testing tools in loaded, meaning engaged in operation, and unloaded, meaning turned on, conditions.

To strengthen the drive to reduce work-related noise-induced hearing loss, NIOSH encourages businesses to adopt its Buy Quiet programs by replacing old tools with quieter ones and maintaining accurate information on equipment noise levels.

“Public interest in reducing noise pollution and exposure, as well as the increase in noise restrictions, is reflected in guidance to consumers from organizations like Consumer Reports…”

Legal actions to reduce noise in neighborhoods, along with engineering improvements that reduce noise emissions from power tools and yard equipment, have produced better choices for the consumer and worker. As individuals, we can ask that landscapers use quieter and more environmentally friendly equipment. As consumers, we can replace old tools with new ones that are less noisy. As workers, we can push for implementation of Buy Quiet policies. Through such steps, we will move steadily toward a noticeable reduction in noise levels in our environments. Please be sure that your new-found quiet is the result of a deliberate move to utilize newer equipment with lower noise levels and not due to noise-induced hearing loss.

Continued from page 15
As an ATA member, you are directly supporting cutting-edge scientific research with your donation. One of the most important things that ATA does as an organization is fund grants for researchers who are investigating the conditions, causes, treatments, and potential cures for tinnitus and hyperacusis. Over the past four decades, ATA has provided more than $6 million in research aimed at solving the tinnitus and hyperacusis puzzles.

ATA grants allow researchers to gather pilot data or continue work that ATA has previously funded. In many cases, scientists go on to receive much larger grants from federal agencies, such as the National Institutes of Health (NIH) and the Department of Defense (DoD), to continue the work they started with their initial ATA grant. Viewed in this context, you can see how ATA’s investment and your donations contribute to a clear path toward scientific progress and breakthroughs.

Every March, ATA’s Scientific Advisory Committee (SAC), which is made up of researchers and medical professionals who volunteer their time and expertise to review grant proposals, meets to discuss their review results. Based on that, they make funding recommendations to the ATA Board of Directors, which meets in the spring to review and award grants.

As the understanding of tinnitus and hyperacusis has evolved, so has ATA’s grant program. In 2005, ATA’s SAC developed and adopted its Roadmap to a Cure. The Roadmap outlines four paths of research—two basic and two clinical—to ensure that your grant dollars are following a research trajectory likely to yield better understanding and treatment outcomes for patients.

Recognizing the significance of patients, ATA introduced a provisional patient review panel to join the process this year. Patient reviewers will focus on the impact that a proposal may have on the patient community and present their conclusions to SAC during the March meeting.

It is anticipated that the patient review panel will further enhance the dynamics of the research grant program. In future review cycles, we hope to draw on ATA members to serve as patient reviewers.

To learn more about the Scientific Advisory Committee and the Board of Directors, visit: ATA.org/about-us/leadership.

To learn more about research funded by ATA, visit: ATA.org/research-toward-cure.

“Hearing loss is the third most common chronic health condition in the U.S., surpassing diabetes and cancer,” according to Anne Schuchat, Acting Director for the Centers for Disease Control and Prevention, in an article published March 1, 2017, on Fox News.
Don’t Make the Journey Alone

_Become a group leader in your area and lead the way in learning about the latest research, learning from health professionals, and being part of a larger community committed to sharing and understanding the challenge of living with and adapting to tinnitus and/or hyperacusis._

The ATA, in an ongoing effort to increase the number of support groups across the United States, is calling on those who feel a desire to connect with others to turn the journey of living with tinnitus and hyperacusis into a team effort by becoming a support group leader in your area.

Don’t feel qualified? Don’t worry. You don’t have to have all the answers. You don’t need to be a health-care professional. You don’t have to understand all the layers of what it is like to have either or both conditions. Being part of a team means that the ATA is here to help you. Whether you are a layperson or someone with related expertise in the field, we provide resources to help and sustain a group.

To learn more, visit our website at www.ata.org, where you will find our ATA Support Group Leader Guide. This is a comprehensive outline of all the steps for creating and sustaining a support group, from defining a mission statement, finding a meeting place, developing an agenda, and creating a network of volunteers, to tips on finding speakers, and finding counselors capable of providing more comprehensive support. We anticipate that you’ll have questions, so please don’t hesitate to email us at tinnitus@ata.org.

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[App Store](http://appstore.com/tinnitusoundfinder)
Somatosounds

By John A. Coverstone, AuD

1 Somatosounds are noises that originate within your body, usually from bodily functions. They are NOT tinnitus. Somatosounds can be traced back to a specific origin within the body. Tinnitus arises from, or is directly connected to, the auditory nervous system—as far as we know. Research is still being done to determine exactly what causes tinnitus.

2 In the past, somatosounds sometimes were called objective tinnitus. This is because some somatosounds may be heard by a physician or audiologist listening close to a patient’s ear.

3 If a somatosound cannot be heard by another person, it is not technically objective tinnitus. However, somatosounds are not technically tinnitus at all. So it technically shouldn’t matter.

4 Because somatosounds do not originate from the auditory system, the term objective tinnitus is usually frowned upon by professionals. It really isn’t considered tinnitus at all.

5 Pulsatile tinnitus is usually a somatosound. In many cases, it has a vascular origin. It may be caused by conditions, including arteriosclerosis of the carotid artery, ideopathic intracranial hypertension (high blood pressure around your brain), vascular malformations or tumors, or the higher incidence of blood vessels associated with Piaget’s disease.

6 If the last paragraph didn’t scare you enough, pulsatile tinnitus should always be checked out by a physician. It can be life-threatening in rare cases. Fortunately, pulsatile tinnitus can also be treated in most cases.

7 Another somatosound that is often mistaken for tinnitus comes from temporomandibular joint (TMJ) problems. People who clench their jaw frequently may develop a clicking or other sound. Your orthodontist can probably help with that (see the Winter 2016 issue of Tinnitus Today for a patient story about TMJ problems).

8 Some people experience a condition where one of the middle ear muscles moves abnormally—often rhythmically—and vibrates the bones of the middle ear. Those bones transmit sound passed through the eardrum. Sound is vibration. So when they vibrate, we hear sounds.

9 This condition is called myoclonus of the middle ear. It is usually benign, but should also be checked out. In rare cases, it also may also indicate a serious condition.

10 The eustachian ("yu-stay-shun") tube is an opening traveling from the nasopharynx—between your throat and nose—to the middle ear, which is filled with air. It allows air to move into or out of the middle ear cavity so the air pressure equalizes with the outside world. Guess what? It can cause somatosounds, too! When the tissues around the eustachian tube atrophy or a muscular problem causes the eustachian tube to be abnormally open, a person may hear his or her own breathing as a “blowing” sound.

11 This condition called a “patulous” or “patent” eustachian tube, can be seen by an examiner watching the movement of the eardrum. The eardrum will move in sync with the person’s breathing. It may be enhanced for forceful breathing, particularly if the opposite nostril is pressed closed. After showing all your friends, you should see an ENT, who may be able to treat the condition.

12 A patulous eustachian tube may occur after rapid weight loss, so if you’ve been contemplating the newest fad diet, be forewarned.

13 When the ear is stimulated with certain sounds, hair cells of the inner ear respond and create additional sounds. In a healthy ear, these responses may be measured and are called otoacoustic emissions (OAEs). Audiologists use them to measure whether certain hair cells—called outer hair cells—are working normally. There have been cases reported where otoacoustic emissions occur spontaneously and are loud enough to be heard by an outside person.

14 The outside person would need to have pretty good hair cell function of their own. Spontaneous OAEs are very soft—even the louder ones.

15 Just about everybody experiences somatosounds. Have you ever had a moment when your hearing decreased and you heard an intense ringing for few seconds? You may have even felt some pressure in your ear. It was probably due to a spasm of the stapedius muscle in the middle ear. If it happens frequently you should check with your physician, but if it only happens every now and then you are probably fine.
Editorial Calendar 2017

*Tinnitus Today* magazine is a print and electronic media magazine published in April, August, and December, and circulated to 10,000+ ATA members, patients, supporters, researchers, and healthcare professionals.

The magazine editorial team empowers readers with information, including up-to-date medical and research news, feature articles on urgent tinnitus and hyperacusis issues, questions and answers, self-help suggestions, and letters to the editor from others with tinnitus and/or hyperacusis. Strong service journalism, compelling storytelling, first-person narrative, and profiles are presented in a warm, vibrant and inviting format to encourage readers to reflect, engage, and better understand a medical condition that affects millions.

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*Special Insert: ATA Strategic Plan*

| Winter      | Research Issue       | 10/1               | 10/1                    | 10/1    | 12/1          | December     |
| Dec 2017    |                      |                    |                         |         |               |              |

*ATA Research Grants Update*

| Spring      | Leadership Issue     | 2/1                | 2/1                     | 2/1     | 4/15          | April        |
| Apr 2018    |                      |                    |                         |         |               |              |

*Editorial Calendar is subject to change.*

**To Advertise: Contact Torryn Brazell at Torryn.Brazell@ata.org**

ATA is the nation’s foremost and trusted organization committed to finding cures for tinnitus and hyperacusis. Our commitment demands focus, determination, strategy and resources. ATA promotes synergistic alliances between dedicated medical professionals and researchers who work with and within the tinnitus community. The battle for a cure is real, and will be won through advances in technology and medicine, areas in which we have often served as a conduit for new discoveries.

We fulfill our mission by:
1. Funding targeted research projects
2. Providing education, hope, and support for the tinnitus community
3. Advocating for effective public policies focused on advancing science toward cures for tinnitus and hyperacusis, and
4. Collaborating with others to promote awareness, encourage prevention, and ultimately to silence tinnitus.

www.ata.org
Podcast 1: Clinical Aspects of Tinnitus  
RELEASE DATE: February 2017  
SUBJECT MATTER EXPERT: David Baguley, PhD, MBA  
TOPIC: Dr. Baguley discusses the journey of a person with tinnitus, from the moment a problem is registered to the point he/she recognizes there may be no quick fix. The conversation touches on the patient and healthcare provider relationship, current research, the importance of support groups, and hope for future advancements in treatments and a cure.

Podcast 2: Sound Therapy  
RELEASE DATE: April 2017  
SUBJECT MATTER EXPERT: Richard Tyler, PhD  
TOPIC: Listeners learn about research and treatment through Sound Therapy, which can reduce stress and enable tinnitus and hyperacusis sufferers to engage more effectively in dynamic environments. Thoughts on obstacles toward cures and treatment are also shared. Tyler also spoke about the University of Iowa’s “Management of the Tinnitus & Hyperacusis Patient” practitioner conference, which runs June 15-16. Having founded the annual conference 25 years ago, Tyler discussed how it has evolved to serve the needs and interests of patients, researchers, clinicians, audiologists, and other healthcare providers.

Podcast 3: Neuromodulation to Suppress Tinnitus  
RELEASE DATE: June 2017  
SUBJECT MATTER EXPERT: Jinsheng Zhang, PhD  
TOPIC: Dr. Zhang will discuss his research in neuromodulation, which involves stimulation of a variety of peripheral and brain structures, through direct and indirect approaches. This groundbreaking research, involving animal and human subjects, shows promising results toward providing potential relief for tinnitus sufferers. Listeners will hear Dr. Zhang discuss the research, its underlying mechanisms, and how it might translate into treatments for suppressing tinnitus.

Podcast 4: Ringing Ears and the Neuroscience of Tinnitus  
RELEASE DATE: August 2017  
SUBJECT MATTER EXPERT: Larry E. Roberts, PhD  
TOPIC: Listeners will learn from Dr. Roberts how specific features of sounds and their corresponding significance differ from person to person. Due to that uniqueness, sounds—and the way the brain responds to them—are not something that can be deciphered through genetic coding. Dr. Roberts will address this challenge of uniqueness and how the brain contains mechanisms for neural plasticity that tune auditory neurons to represent the sounds that are meaningful to us.

Podcast 5: The Latest Research on Tinnitus Management  
RELEASE DATE: October 2017  
SUBJECT MATTER EXPERT: James Henry, PhD  
TOPIC: Dr. Henry’s goal is to develop and validate clinical methodology for effectively helping individuals who are afflicted with bothersome tinnitus. In this podcast, listeners will learn about the latest research and studies related to tinnitus clinical management. Listeners also will hear about the Veterans Administration’s tinnitus management program.

Podcast 6: ATA Leading the Drive for Patient Support, Treatments, and a Cure  
RELEASE DATE: December 2017  
SUBJECT MATTER EXPERT: Torryn P. Brazell, MS, CAE  
TOPIC: Brazell, marking her first year as ATA’s Executive Director and Chief Operating Officer, will discuss the mission of ATA and its drive to lead the charge in finding a cure for tinnitus. Due to the complexity of the condition, Brazell will share the multifaceted approach that the ATA pursues, including research funding, development of effective treatments, broad-based support for sufferers and healthcare providers, education, and coordination with other national and international players in the quest to spread global awareness and find a cure.

To ensure that podcast content is available to the broadest audience possible, particularly those with impaired hearing or noise sensitivity, transcripts are available on our website www.ata.org at the time of release.

To listen to ATA podcasts, visit www.ata.org/podcasts