I once attended a presentation that listed 26 different treatments for tinnitus, one for each letter of the alphabet—from acupuncture to Zen music. An internet search will reveal hundreds of treatments, many claiming to “cure” or “relieve” tinnitus. Why are there so many treatments, and which of them actually work? I’ll get to those questions after I lay a little groundwork. Then, I will make specific recommendations for what to do if you have tinnitus.

**AAO-HNSF Clinical Practice Guideline: Tinnitus**

This article is mostly consistent with the American Academy of Otolaryngology—Head & Neck Surgery Foundation (AAO-HNSF) Clinical Practice Guideline: Tinnitus (CPG: Tinnitus). The CPG: Tinnitus was published in 2014, and is, to date, the most credible guide for evidence-based clinical management of tinnitus. It is my strong opinion that every clinician who offers tinnitus services, and every person seeking such services, should be familiar with the CPG: Tinnitus. It can be accessed online at: http://www.entnet.org/content/aao-hnsf-clinical-practice-guideline-tinnitus

Development of the CPG: Tinnitus started with a systematic review of the literature, which is the most stringent method of assessing the effectiveness of different methods of intervention. A systematic review looks mostly at randomized controlled trials. For the CPG: Tinnitus, the focus was on high-quality randomized controlled trials that evaluated different methods of tinnitus management.

The CPG: Tinnitus defines two basic types of tinnitus: primary and secondary. Primary tinnitus is by far the most common of the two types of tinnitus and is the focus of this article. Secondary tinnitus has an underlying cause somewhere in the head or neck that generates an acoustic signal—a real sound. It is essential to receive an examination by an otolaryngologist if secondary tinnitus is suspected.

On the other hand, primary tinnitus has an unknown cause and may or may not be associated with hearing loss. It is an internal sound that is thought to have its origin in the brain, where it also is perceived. Primary tinnitus is the consequence of neural activity that starts in the brain and ends in the brain. For some people, tinnitus is perceived as one of many insignificant sounds to which they are exposed every day. They may notice the tinnitus on occasion, but it does not keep their attention. For other people, tinnitus has negative effects on sleep, concentration, and/or emotions. Their bothersome tinnitus is more than just an insignificant sound—it causes negative effects, which may be mildly bothersome, moderately bothersome, or severely bothersome.

The CPG: Tinnitus made several recommendations based on the systematic review and the consensus of
a 23-member committee that developed the guidelines:
• Any person with tinnitus should undergo an examination by an otolaryngologist.
• An assessment by an audiologist should be done if: (a) the tinnitus has been experienced for more than six months; (b) the tinnitus is unilateral (in one ear only); or (c) the tinnitus is associated with hearing loss.
• A determination of the type—bothersome or non-bothersome—should be made. If bothersome, determine if the tinnitus has been experienced for more than or less than six months to make appropriate treatment decisions.
• Patients should be educated about realistic treatment options.
• A hearing aid evaluation should be performed, if warranted.
• A recommendation for Cognitive Behavioral Therapy (CBT), if intervention is needed.

The CPG: Tinnitus specifically recommended against the following because of lack of evidence:
• Drugs (antidepressants, anticonvulsants, anxiolytics, intratympanic medications),
• Dietary supplements (ginkgo biloba, melatonin, zinc, etc.),
• Imaging studies (for most patients with primary tinnitus), and
• Transcranial magnetic stimulation.

The CPG: Tinnitus listed two options for management:
• Evaluation by an audiologist (for anyone complaining of tinnitus), and
• Sound-based therapy (general use of sound to mitigate effects of tinnitus).

Finally, they had no opinion on whether acupuncture was effective or not.

When Tinnitus is Treated, What Exactly is Treated?

Does treatment target the perception of tinnitus (the sound itself) or the effects of tinnitus (how it affects a person’s life)? The ultimate treatment would, of course, eliminate the perception. That’s the “cure” we all want. Unfortunately, at this time, there is no cure—no treatment has been proven to eliminate tinnitus or even to reduce its intensity on a long-term basis. Treatments must, therefore, target the negative effects associated with bothersome tinnitus: problems sleeping, difficulty concentrating, and emotional reactions.

Because treatments for tinnitus target these negative effects, anything that will improve sleep, concentration, or emotions could serve as a treatment. That’s why there are so many treatments for tinnitus—they do not really treat the tinnitus, they treat the negative effects of tinnitus. The tinnitus itself cannot be treated.

Which Treatments Actually Work?

“Treatment” implies a medical procedure, device, drug, or anything that is done to a person to produce a positive outcome on a health condition.

In American culture, patients often want to be “treated” for any diseases or unwanted symptoms—usually with a drug. This “take-a-pill” mentality puts the onus on the healthcare provider to figure out the best pill or pills to produce a positive result.

In the case of tinnitus, there is no pill. No pharmaceutical medication has been proven to reduce or eliminate the perception of tinnitus. Medications are, however, used to treat the negative effects of tinnitus. They can help us to sleep better, concentrate better, and feel better. However, while they alleviate symptoms, they do not treat the underlying cause: tinnitus. So, drugs do not treat tinnitus, but they can be used to treat the negative effects caused by tinnitus.

What about dietary supplements? No dietary supplement has been proven to have any effect on reducing the perception of tinnitus. This might seem surprising, given all the claims that appear on the internet. When it comes to dietary supplements, the best advice is to save your money.

There are numerous sound therapy products for tinnitus, some of which cost thousands of dollars. These devices are commercially produced and marketed, and they are available
through internet websites. To date, research does not support the use of sound alone as a treatment for tinnitus. There is evidence, however, that **sound therapy combined with counseling can be helpful.**

Which sound therapy device is best? **Studies have not proven that any one device is more effective than any other.** For example, there is no proof that a device that costs thousands of dollars is any more effective than a free sound-therapy app that can be loaded onto your smartphone.

**Treatment for Tinnitus versus Self-Care Skills**

“Treatment” implies some form of one-way intervention from clinician to patient. “Self-care” refers to the capability of managing one’s own medical condition. With these definitions, patients are **passive recipients** of treatment, but they are **active participants** in learning and using self-care skills.

The **CPG: Tinnitus** recommends CBT if intervention is needed. CBT is a method of counseling delivered by mental-health providers, during which they teach patients coping skills, otherwise known as self-care skills. Numerous self-care skills, including stress reduction (relaxation) techniques, distraction strategies, and methods for thinking more constructively, are taught.

CBT has been used as intervention for insomnia, depression, anxiety, pain, and many other conditions involving the mind and emotions. CBT also has been adapted for tinnitus intervention. The systematic review of the literature that was conducted to develop the **CPG: Tinnitus** determined that CBT could be recommended for intervention for bothersome tinnitus. In fact, CBT was the **only** intervention they recommended.

CBT teaches self-care skills for tinnitus. To be effective, patients must be motivated to learn and to practice the skills they are taught. CBT is not a “treatment” as defined above. It is a method of learning how to self-manage the negative effects of tinnitus. If a patient would rather be treated for tinnitus, then there is no form of treatment recommended by the **CPG: Tinnitus**. These patients are likely to try one or more of the many treatments that are offered, but the research evidence would not support their choices.

**Progressive Tinnitus Management**

The focus of my research for 25 years has been the clinical management of tinnitus. I have completed numerous projects, including randomized controlled trials for methods of tinnitus management. I was trained originally by Drs. Jack Vernon, Mary Meikle, and their group in the “masking” method. Later, I trained in the method of Tinnitus Retraining Therapy (TRT) by Dr. Pawel Jastreboff. I completed trials evaluating masking and TRT. All of this led to the development of Progressive Tinnitus Management (PTM).

PTM is a stepped-care form of clinical management. That is, patients receive only the level of clinical services required to meet their individual needs. Recall that some people have tinnitus that is non-bothersome, while others have tinnitus that is bothersome to different degrees (mildly to severely bothersome). PTM is mostly consistent with the **CPG: Tinnitus**, although there are differences.

PTM is a hybrid approach largely derived from different methods. It applies research findings on hearing aids and “combination instruments” (hearing aids with built-in sound generator) for management of tinnitus. It contains components of masking and TRT for teaching sound-therapy skills. It utilizes CBT as a method to teach relaxation and distraction skills, along with teaching patients how to think and act more constructively to manage tinnitus. PTM has been refined over the years, based on our continuous research.

Since the **CPG: Tinnitus** was published, we have completed five randomized controlled trials: two evaluating PTM, two evaluating the use of hearing aids and combination instruments for tinnitus management, and one evaluating a specific form of sound therapy. These trials obviously were not available when the systematic review of the literature was conducted to develop the **CPG: Tinnitus**. A current systematic review would need to incorporate these five additional trials (along with trials that have been conducted by other researchers).
With PTM, the first step is for the patient to meet with the most appropriate healthcare provider for an evaluation. This is a Level 1 Referral, which provides referral guidelines for any patient who complains of tinnitus. Depending on the symptoms, the patient may be referred to Otolaryngology, Audiology, Mental Health, or Emergency Care. People with tinnitus also are very likely to have hearing loss, thus a Level 2 Audiologic Evaluation would be appropriate in the clear majority of cases.

At Level 2, an audiologist conducts a routine hearing evaluation along with a brief tinnitus assessment. The purpose of the brief tinnitus assessment is to determine if the tinnitus is bothersome and, if so, then Level 3 Skills Education may be offered.

Level 3 involves assisting patients in learning self-care skills for managing the effects of tinnitus. Up to five sessions, which can be conducted in groups or one-on-one, are normally involved. Patients are asked to identify situations during which their tinnitus is “most bothersome.” Then, a mental-health provider teaches skills from CBT, and an audiologist teaches skills for using sound, to help them manage their tinnitus in those situations. “Action plans” are developed for patients to match self-care skills with their most bothersome tinnitus situations. Patients apply these plans in their everyday lives and return to report progress and learn new skills.

The great majority of patients who complain of tinnitus have their needs met by receiving Level 2 or Level 3 services. If further services are needed beyond Level 3, then Level 4 Interdisciplinary Evaluation is recommended. These patients would be those with the most severe effects caused by tinnitus. The Level 4 evaluation is conducted in two sessions—one by an audiologist and one by a psychologist. These in-depth evaluations help to determine why the tinnitus is so problematic. Recommendations are made for further intervention as warranted.

Patients who need the highest level of services for tinnitus can undergo the Level 5 Individualized Support. Level 5 extends Level 3 by continuing to develop and assess action plans for self-managing tinnitus using sound-based therapy and CBT skills. The audiologist can work with the patient to focus on using sound in a targeted manner to address tinnitus “problem situations.” Additional CBT skills, which can involve up to 10 or more individual sessions, can be taught by the mental-health provider. Other forms of therapy, such as Mindfulness Training and Acceptance and Commitment Therapy (ACT), also can be provided. The audiologist and/or the mental-health provider work with the patient for as long as necessary.

**Bottom Line: What Should a Person with Tinnitus Do?**

First and foremost, protect your ears from loud sound, which is the most common cause of both hearing loss and tinnitus. We live in a noisy world, and we never know when we will be exposed to sound that is dangerously loud. Earplugs should be carried at all times to always be prepared.

If you’re serious about protecting your ears, then my recommendation is to obtain a pair of custom-fit musicians earplugs. If they are custom fit, then they will fit your ears perfectly and, if properly cared for, will last for many years. They’re called “musicians” earplugs, because they are acoustically designed to maintain the normal spectrum of sound while reducing the level of sound. In essence, things sound the same but not as loud—unlike other earplugs that “muffle” high-frequency sounds.

Second, meet with an audiologist to have your hearing evaluated and to do a brief tinnitus assessment. (The audiologist also can provide musicians earplugs.) An important point is that many people with tinnitus also have difficulty hearing in certain situations. When asked “Why is your tinnitus a problem?” they may respond that the tinnitus makes it difficult to hear. There is a tendency to blame tinnitus for hearing problems. A proper assessment will sort out any hearing problems from tinnitus problems. Often, patients are surprised to learn that they have hearing loss. The hearing loss is the reason they have hearing difficulties—not the tinnitus.

With PTM, the “brief tinnitus assessment” at Level 2 involves completing the Tinnitus and Hearing Survey, which is a one-page form (developed by my research group) that usually can be completed in less than two minutes. The form includes four items:
specific to effects of tinnitus (that would not be confused with hearing problems). It also includes four items specific to hearing problems (that would not be confused with effects of tinnitus). By completing these eight items, and considering the results of the hearing evaluation, it should be clear if the person has a hearing problem possibly warranting the use of hearing aids and if tinnitus-specific intervention would be appropriate. The Tinnitus and Hearing Survey is available online: https://www.ncrar.research.va.gov/Education/Documents/TinnitusDocuments/THS.pdf

Hearing aids can serve double-duty for addressing both hearing and tinnitus problems. Another option is combination instruments. Every major hearing aid company offers combination instruments.

Three randomized controlled trials evaluating hearing aids versus combination instruments for tinnitus management have been completed since CPG: Tinnitus was published. Two were completed by my group. All three of those trials showed that both hearing aids and combination instruments are effective for this purpose. They also showed that combination instruments were not more effective than hearing aids alone. My recommendation would be, if you need hearing aids, get combination instruments so you have the flexibility of adding sound (as background or for relief) to the amplification.

If a person starts wearing hearing aids or combination instruments, it is recommended to repeat the brief tinnitus assessment (Tinnitus and Hearing Survey) one-to-two months later. That assessment will help determine if the tinnitus is a problem warranting tinnitus-specific intervention or if the tinnitus problem has been sufficiently resolved.

If tinnitus-specific intervention is required, then I recommend learning self-care skills as the best course of action. We have created a book to outline and teach the self-care skills that are utilized with PTM. That book is available as a free download at: https://www.ncrar.research.va.gov/Education/Documents/TinnitusDocuments/HowToManageYourTinnitus.pdf

Otherwise, it is recommended to meet with a CBT provider who has expertise in tinnitus management. An audiologist also can assist in teaching sound-therapy skills. I would remind the reader, however, that no one method of sound therapy has been proven better than any other method, and no sound therapy device has been proven better than any other device.

**Conclusion**

Progressive Tinnitus Management (PTM) is used mostly within the Veterans Affairs (VA) System of hospitals. It also is being used increasingly in non-VA clinics, but there is no guarantee that an audiologist or mental-health provider will even be familiar with PTM. The best approach for receiving services for tinnitus is to follow the basic procedures described above. Follow a step-wise approach, usually starting with an audiologist to determine your needs. In some cases, you may know more than your clinician, who typically is not trained in tinnitus management. If that is the case, then you should introduce him/her to the CPG: Tinnitus and request that he/she become familiar with it. At the very least, work with a clinician who is familiar with the CPG: Tinnitus and who abides by its basic principles.

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**References**