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Ten Things To Know About Tinnitus

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Glynnis Tidball, MSc (SLP, Aud)

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The goal of this article is to provide you, the reader, with things that I, the author, think you might like to know about tinnitus. Or need to know. Or some combination of the two. I have written it with hearing health care professionals in mind. Tinnitus prevalence in the general population is estimated to be between 10-15%, so it is inevitable that a proportion of patients coming to a hearing or ENT clinic will need help managing tinnitus. And although numbers suggest that as many individuals might benefit from tinnitus care as would benefit from hearing aids, the emphasis and expertise in clinical practice generally favours hearing loss management. Here, then, are ten things I, as a non-dispensing tinnitus audiologist of 20+ years, would love all hearing healthcare professionals to know about tinnitus.

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managing tinnitus.

1. Most persons with tinnitus (PWT) have some degree of hearing loss yet many (~40%) individuals with tinnitus don't recognize that they are straining to hear. While tinnitus does not mask external sounds, it may seem to do so when listening in a challenging environment. You likely have heard some of your patients identify tinnitus as the reason that they can't hear in noise, perhaps at the same time as you are looking at their audiogram that shows a significant high-frequency hearing loss… This is a great opportunity to do some hearing loss counselling and discuss how noise, distance and reverberation are the likely culprits to not hearing well in certain situations. I often grab a "pocket talker" amplifier to demonstrate what amplification might provide in terms of listening ease and tinnitus suppression – hearing is believing! I also use Henry et al.'s Tinnitus and Hearing Survey to help differentiate bothersome tinnitus from hearing difficulties.



Even low-tech amplification can illustrate the benefits of improved hearing on tinnitus. Photo credit: Noriko Nasu-Tidball.

2. Tinnitus is a symptom like a headache is a symptom. There are multiple possible causes and contributors to tinnitus, some of which are medically significant. Wear your diagnostic hat when asking about tinnitus. Find out if tinnitus is pulsatile, and if so, determine if it is pulse-synchronous (you can ask them to tap out the tinnitus while you take their pulse); unilateral; or persistent and severely disabling. If the answer is yes, let them know you are recommending that they be referred on to ENT through their primary care physician or specialist, and clearly identify your concerns in a letter to the physician (unless, of course, you are the ENT specialist). For more information on red flags for medical referral, refer to the clinical practice guidelines for tinnitus published in Otolaryngology-Head Neck Surgery.



Our clinic's first tinnitus analyzer. I'm this many generations of audiology equipment old. Photo credit: Noriko Nasu-Tidball

Tinnitus is not a disease. Although tinnitus can precede hearing loss (as with ototoxicity), tinnitus in and of itself will not cause hearing to worsen.

3. If you can't say something nice, don't say anything at all. In other words, avoid negative counselling which can fuel negative thoughts and unpleasant feelings around tinnitus. My patients have relayed some truly frightful advice from well-meaning medical professionals over the years. Many patients say they have been told, "Nothing can be done… Learn to live with it," words that can leave them feeling hopeless and invalidated. Keep your counselling sincere, accurate, and positive. Psychological treatments such as cognitive behavioural therapy can be helpful where educational counselling alone isn't enough. Even if a cure for tinnitus is not available, I want patients to know that there are many ways to help them habituate to and live well with tinnitus.

4. Tinnitus is often accompanied by decreased sound tolerance (DST), a term that encompasses hyperacusis and misophonia. Sometimes DST is the greater issue for patients, sometimes they don't identify they have it (tip: remember to ask, particularly if you plan on using high-intensity stimuli for acoustic reflex thresholds or loudness discomfort levels). Hearing instruments are an important tool for managing tinnitus as amplification can suppress tinnitus partially or wholly. The road to target gain will be very bumpy, however, if decreased sound tolerance is not considered in the fitting. A patient with DST may report that hearing instruments worsen tinnitus, trigger or worsen headaches, and say that they just don't like wearing them. For some patients, slow introduction of amplification is needed, with the express understanding that they won't get full benefit for speech understanding until decreased sound tolerance has been addressed. For others, amplification may need to be delayed until sound tolerance improves through use of ear-level noise generators, appropriate counselling, and possibly anxiety management. I'm a big fan of trying assistive listening technologies such as a TV streamer or remote microphone. Assistive listening devices improve signal-to-noise ratio so that those with DST can more easily access speech at a level that is potentially both comfortable and intelligible.



Minimizing the distance between the listener and the sound source through assistive technology may make it easier to focus attention away from tinnitus. Photo credit: Noriko Nasu-Tidball.

5.Consider the role of stress and mental health. Stress seems to fuel tinnitus distress and possibly tinnitus loudness as well. For some people, stress is the only identifiable trigger for tinnitus onset. While no one can avoid stressors entirely, we can all change how we respond to stressors through regular relaxation practice, mindfulness-based stress reduction or cognitive therapy. Many patients whose tinnitus started during periods of stress report a sudden onset tinnitus, perhaps linked to a traumatic event. Make sure to ask about tinnitus onset and its potential relation to coincident environmental stressors or events.

Anxiety and depression are common co-morbidities of tinnitus. Not every hearing health professional is comfortable broaching the topic of mental health, however. An easy way to start the conversation is to ask, “Do you feel anxious or depressed? Did you feel this way before the tinnitus began? How are you managing it?” If I am concerned about a patient’s mental health, I ask them to complete two open-source questionnaires, the Generalized Anxiety Disorder Scale (GAD-7) and the Patient Health Questionnaire (PHQ-9), and report results to the primary care physician (PCP). I’ll then encourage the patient to book an appointment with their PCP to discuss their mental health specifically.

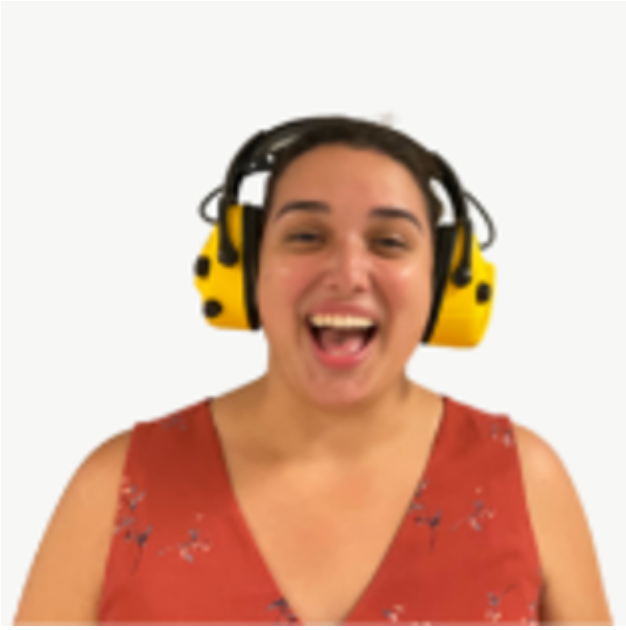
6. Ask about head and neck injury or pain. Transient aural fullness and otalgia (especially sound-induced) without apparent otologic cause, tinnitus that alters in pitch/loudness with head/neck movement or position, or tinnitus that spikes throughout the day without any identifiable reason may be an indication that there is a somatosensory connection to tinnitus. I refer to a physiotherapist trained in temporomandibular joint disorder (TMD) and cervical treatment for assessment and, if applicable, treatment. The combination of the physiotherapist’s in-clinic education and treatment along with home practice can significantly reduce some aural symptoms that accompany tinnitus and in some instances, tinnitus as well.

7.“What if tinnitus gets worse?” This is a common concern for PWT. Some key points: Reassure patients that variations in tinnitus quality are normal, particularly during times of stress, but that tinnitus is unlikely to ramp up endlessly. PWT may be concerned that any loud noise can exacerbate tinnitus permanently. A discussion of safe sound exposure and appropriate use of hearing protection can be helpful here (see below). PWT may also be concerned about the potential

impact of medications on tinnitus. While very few drugs are known to cause tinnitus, I encourage patients to discuss with their prescribing physician and pharmacist how changes or additions to their medication regime might impact tinnitus and what options are available should this occur.

8. Hearing protection: too much of a good thing? Some PWT under-use hearing protection because they find blocking out external sounds makes tinnitus more noticeable and can even contribute to a decreased sense of safety. In my experience, however, most PWT over-use hearing protection because they fear noise will make tinnitus worse or because they have lowered tolerance of loud sounds. Research suggests that over-use of hearing protection can induce decreased sound tolerance. Over-use of hearing protection can also diminish patients' own and others' safety, particularly if they are on a work site and don't hear safety signals. Help your patient identify when hearing protection is and is not appropriate, and what hearing protection best suits their needs. Electronic hearing protection devices like the Peltor ProTac mildly amplify ambient sounds so that the user is aware of their surroundings but also remains safe when sounds exceed 82 dB A. These hearing protection devices have a CSA Class A or Class B rating. I keep a set in my clinic for patients to try – some like them so much, they don't want to take them off.

If you are recommending a specific kind of hearing protection device for work, give your patient a letter to take to their occupational health and safety person explaining what kind of hearing protection device you are recommending and where it can be sourced.



Electronic hearing protection can be a welcome addition to the tinnitus toolkit.

9. Sleep – getting to sleep, getting back to sleep, or getting "quality" sleep – can be elusive for PWT. Having a sound machine in the bedroom will enrich what is typically a very quiet environment where tinnitus can easily emerge. Cheap and cheerful sound machines work for some people; others need to have a quality transducer for the sound to be acceptable. I recommend setting the volume only to a level that is comfortable and pleasant, and leaving it on 24/7 so that the sound becomes part of the bedroom soundscape. Some patients try to use the sound to mask or obscure tinnitus – this can render the sound annoying to them and their sleep mates, and runs counter to the notion of tinnitus habituation. Sleep hygiene is critical, too – no one is going to get a good sleep if they have poor sleep habits. Health issues such as sleep apnea, chronic pain, restless legs syndrome, and mental health conditions can also impact sleep quality and quantity. As with mental health issues, I encourage patients to specifically discuss sleep with their PCP if it's an

ongoing concern.

10. “Nothing is all good, nothing is all bad”. There can be a silver lining to tinnitus. Maybe tinnitus will motivate better hearing loss management. Maybe it will encourage positive changes such as stress reduction or addressing other health issues. Anne-Mette Mohr discusses her perspective on tinnitus as an existential psychologist in what might be my favourite tinnitus article ever.



With their super-sized pinnae, Corgis are the natural choice of canine for hearing health care professionals. At least Margaret thinks so. Photo credit: Noriko Nasu-Tidball

There will be times when you don’t have all the answers. Let your patients know that you will do your best to help them manage tinnitus and decreased sound tolerance. If you’re stuck on how to achieve this, ask for help from an experienced colleague or the audiologist on-call for your hearing aid manufacturer, or direct your patients to another clinic that provides what you think they need. Your patients will thank you.