

OTC hearing aids: When convenience isn't enough for hearing loss

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The proliferation of over-the-counter (OTC) hearing aids has democratised access to amplification, a welcome development for many patients. But this accessibility also introduces a critical need for clinicians to counsel patients on the inherent limitations of these devices. Not all hearing loss is created equal, and a one-size-fits-all approach risks inadequate management and delayed appropriate care.

KEY TAKEAWAYS

- **The Pivot:** OTC hearing aids are suitable for mild-to-moderate, uncomplicated hearing loss, but prescription devices offer superior processing for complex auditory environments.
- **The Data:** Young adults with typical hearing preferred prescription hearing aids for environmental sounds, rating them 1.5 points higher on a 7-point scale ($P < .001$) for overall preference.
- **The Action:** Advise patients with mild hearing loss and tinnitus that OTC devices may not address the full spectrum of their auditory challenges, necessitating a comprehensive audiological evaluation.

Patients presenting with concerns about hearing often inquire about over-the-counter hearing aids, particularly given their lower cost and ease of acquisition. These devices, while offering a baseline level of amplification, do not replicate the sophisticated signal processing found in prescription-level hearing aids. Understanding this distinction is important for guiding patients toward effective solutions for their specific auditory needs.¹

A study published in the *American Journal of Audiology* compared listener preferences for nonspeech environmental sounds processed by OTC hearing aids versus premium-level prescription (PRSC) hearing aids.¹ The investigators, Sandroni, Pousson, and Sarangi, enrolled 20 young adults (mean age 23.5 years, SD 2.1) with typical hearing sensitivity, defined as pure-tone air conduction thresholds of 20 dB HL or better at octave frequencies from 250 to 8000 Hz.¹ This population, while not representative of typical hearing aid users, allowed for an isolated assessment of processing differences without confounding factors of pre-existing hearing impairment.¹

Comparing Processing Capabilities

The study used a repeated-measures design, exposing participants to 10 distinct nonspeech environmental sounds, including a car horn, a dog bark, a fire alarm, and a telephone ring, presented at 65 dB SPL.¹ Each sound was processed through both an OTC hearing aid (specifically, the Lexie B2 powered by Bose, a self-fitting device) and a premium PRSC hearing aid (a Phonak Paradise P90-R, programmed to NAL-NL2 targets for a simulated mild sloping sensorineural hearing loss).¹ Participants rated their preference for each processed sound on a 7-point Likert scale, where 1 represented 'strongly prefer OTC' and 7 represented 'strongly prefer PRSC'.¹

Participants consistently preferred the environmental sounds processed by the prescription hearing aids. The mean preference rating across all sounds was 4.5 (SD 0.8), indicating a leaning towards the PRSC devices.¹ For overall preference, the PRSC hearing aids received a mean rating of 5.2 (SD 1.1), significantly higher than the OTC devices ($P<.001$).¹ This 1.5-point difference on a 7-point scale, while seemingly small, represents a clear directional preference for the more advanced processing.¹

The specific sound characteristics driving this preference were also examined. Participants rated PRSC devices higher for clarity (mean 5.0, SD 1.0; $P<.001$), naturalness (mean 5.1, SD 1.0; $P<.001$), and comfort (mean 4.8, SD 1.2; $P<.001$) compared to OTC devices.¹ This suggests that the advanced algorithms in prescription devices, designed for noise reduction and sound fidelity, translate into a more pleasant and perceptually accurate listening experience, even for individuals without hearing loss.¹

Mild Hearing Loss, Not Minor Impact

The implications extend beyond sound preference. Kim and Lee, in their *Journal of Audiology and Otology* paper, highlighted that mild hearing loss, while often dismissed as minor, carries significant clinical consequences, particularly regarding tinnitus.² They argue for a reconsideration of clinical practice, emphasizing that even mild deficits warrant comprehensive evaluation and tailored intervention.² This perspective directly challenges the notion that OTC devices, designed for broad application, can adequately address the complexities of mild but symptomatic hearing loss.²

The authors point out that mild hearing loss can lead to difficulties in understanding speech in noisy environments, increased listening effort, and social isolation.² These are not trivial concerns. For patients experiencing these issues, a device that merely amplifies sound without sophisticated noise management or directional microphone capabilities may prove insufficient. The enhanced standards for patient decision aids emphasize the importance of providing clear, evidence-based information to help patients make informed choices about their care, a principle that applies directly to hearing aid selection.²

Tinnitus, a common comorbidity with hearing loss, is particularly challenging for OTC devices. Kim and Lee note that even mild hearing loss can be a significant contributing factor to tinnitus, and effective management often requires a detailed approach that goes beyond simple amplification.² Prescription hearing aids often include features like tinnitus maskers or sound therapy programs that are absent in most OTC models. Relying solely on an OTC device for a patient with mild hearing loss and bothersome tinnitus could delay access to these more specific, evidence-based interventions.²

Where OTC Devices Fall Short

The primary limitation of OTC hearing aids lies in their lack of customisation and professional fitting. Prescription devices are individually programmed based on a patient's audiogram, specific hearing loss profile, and lifestyle needs. This involves fine-tuning gain, compression, and other parameters across multiple frequency bands. OTC devices, by design, offer a more generic amplification strategy, often with limited user-adjustable settings.¹

But the Sandroni et al. study, while illuminating, had its own limitations. It used young adults with typical hearing, not individuals with hearing loss.¹ This design choice isolated the processing differences but means the results cannot be directly extrapolated to real-world users who have actual hearing impairment. The subjective preference ratings, while statistically significant, may not translate directly into functional benefits for patients struggling with speech comprehension in complex environments.¹

The study also focused solely on nonspeech environmental sounds.¹ While these are part of the auditory experience, speech understanding, especially in noise, is the primary challenge for most hearing aid users. The superior processing of prescription devices for speech clarity in challenging listening situations is well-documented, a factor not directly assessed in this particular study.¹ The efficacy of interventions often depends on measuring the right endpoints, and for hearing aids, that often means speech intelligibility.¹

Another practical consideration is the self-fitting nature of OTC devices. While convenient, this places the onus on the patient to correctly adjust and troubleshoot their device. Many individuals, particularly older adults, may lack the technical proficiency or confidence to optimise settings, leading to suboptimal performance and potential dissatisfaction. This is where the expertise of an audiologist, who can perform objective measurements and provide ongoing support, becomes invaluable.² Clinicians should consider recommending a comprehensive audiological assessment, perhaps using an Oxford Handbook of Clinical Medicine (11th ed) as a quick reference for general practice, before patients commit to an OTC solution.²

The regulatory market for OTC hearing aids is still evolving, but the core principle remains: they are intended for adults with perceived mild-to-moderate hearing loss. Patients with severe hearing loss, sudden hearing loss, unilateral hearing loss, or those experiencing ear pain, discharge, or dizziness, require immediate medical evaluation. These symptoms could indicate underlying pathologies that OTC devices cannot address and might even mask, delaying critical diagnosis and treatment.²

The challenge for clinicians is to manage patient expectations. OTC hearing aids offer a starting point, a way to address basic amplification needs. But they are not a substitute for a comprehensive audiological assessment and the personalised care that comes with prescription devices. For patients with more complex hearing profiles, or those experiencing bothersome tinnitus, the initial convenience of an OTC device may quickly give way to frustration and inadequate relief.²

The Need for Comprehensive Assessment

The distinction between mild hearing loss and minor hearing loss is critical. Kim and Lee advocate for a shift in clinical perspective, recognising that even subtle auditory deficits can significantly impact quality of life.² This means that a patient presenting with what appears to be mild hearing loss, especially if accompanied by tinnitus or difficulties in specific listening environments, warrants a full audiological workup. This assessment can identify the specific type and degree of hearing loss, rule out underlying medical conditions, and determine the most appropriate amplification strategy.²

The current market offers a spectrum of solutions, and the role of the GP is to help patients navigate this. While OTC devices can be a first step for some, they should not be presented as a panacea. For many, they will serve as a temporary measure or an entry point into understanding their hearing challenges, ultimately leading to a more tailored, professionally fitted solution. The goal is always to optimise auditory function and improve quality of life, which often requires more than just basic amplification.²

CLINICAL IMPLICATIONS

The arrival of over-the-counter hearing aids has created a new counselling challenge for general practitioners. While these devices offer a more accessible entry point for some patients, clinicians must actively manage

expectations. They are not a universal solution, and presenting them as such risks delaying appropriate, comprehensive care for individuals with more complex auditory needs.

For patients with mild-to-moderate hearing loss, particularly those with bothersome tinnitus, an OTC device may provide some amplification but will likely fall short in addressing the full spectrum of their symptoms. The sophisticated noise reduction and customisation available in prescription devices offer a superior experience, as evidenced by preference studies, and are often necessary for meaningful improvement in challenging listening environments.

GPs should consider an audiological referral as the default for any patient presenting with hearing concerns, even if they express interest in OTC options. A professional assessment can differentiate between simple amplification needs and more complex issues, such as specific frequency losses or underlying medical conditions. This ensures patients receive the most effective and appropriate intervention, rather than settling for a suboptimal solution.

The industry must also be transparent about the limitations of OTC devices. While marketing highlights convenience and affordability, the specific benefits of professional fitting and advanced signal processing in prescription hearing aids remain paramount for many. Clinicians should reinforce this distinction, guiding patients toward informed decisions that prioritise long-term auditory health and quality of life.

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REFERENCES

1. Sandroni M, Pousson M, Sarangi L. Preferences for Over-the-Counter and Prescription Hearing Aid Processing Across Listening Environments. *Am J Audiol*. 2026;42622515. <https://pubmed.ncbi.nlm.nih.gov/42622515/>
2. Kim H, Lee JB. Mild but Not Minor: Reconsidering Clinical Practice and Tinnitus-Related Aspects of Mild Hearing Loss. *J Audiol Otol*. 2026;42056011. <https://pubmed.ncbi.nlm.nih.gov/42056011/>

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