

## EDUCATIONAL ONLINE EVENT

*Join us for our quarterly webinar series!*

February 23, 2022 · 11:00 a.m.–12:30 p.m.

### TINNITUS—WHAT IS THAT SOUND, AND WHAT CAN WE DO ABOUT IT?



Presented by UOP audiologist  
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## What Is Hidden Hearing Loss?

If you can pass a hearing test with flying colors but have trouble making out what your friends say in a noisy restaurant, you could have hidden hearing loss. Hidden hearing loss often goes undiagnosed because a standard audiogram, which measures your ability to hear varying volumes and pitches in a quiet room, won't detect it.

Deciphering speech in background noise is one of the most significant issues for people with ordinary hearing loss, and it's often the most common sign of hidden hearing loss.

It's not clear exactly how many people have the condition. Studies show that 10 to 15% of patients who think they have hearing difficulties end up with normal scores on their audiogram.<sup>1,2</sup> Researchers believe that these patients may suffer from hidden hearing loss.

#### A Likely Cause of Hidden Hearing Loss

For years, scientists have known that damage to tiny hair cells in our ears causes ordinary hearing loss. However, researchers discovered in 2009 that loud noise could damage the synapses that connect those hair cells with nerve cells in the inner ear, leading to hidden hearing loss.

In the study, mice were exposed to 100-decibel noise for two hours. The hair cells in their ears remained intact, but 50% of their synapses were missing.<sup>3</sup> The loss of these

synapses prevents the nerve cells from sending complete sound signals to the brain. As a result, the brain receives incomplete information and struggles to understand speech in background noise.

#### Take Steps To Protect Your Hearing

Hidden hearing loss is often the result of noise exposure; meaning, you can prevent it. If you use portable music players with headphones, turn down the volume and take listening breaks. Try to position yourself away from the speaker system at concerts. And when operating a leaf blower or lawnmower, always wear hearing protection.

**Suspect you may have hidden hearing loss?  
Contact University of the Pacific's audiology  
team today for help.**

1. Parthasarathy, A. et al. (2020, January 21). Bottom-up and top-down neural signatures of disordered multi-talker speech perception in adults with normal hearing. <https://elifesciences.org/articles/51419>

2. Spankovich, C. et al. (2018, February). Self-reported hearing difficulty, tinnitus, and normal audiometric thresholds, the National Health and Nutrition Examination Survey 1999-2002. <https://pubmed.ncbi.nlm.nih.gov/29254853/>

3. The Hearing Review. (2020, January 22). 'popular science' article explores causes of hidden hearing loss. <https://hearingreview.com/hearing-loss/hearing-disorders/mixed-hidden-hearing-loss>

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quarterly webinars on the latest topics in hearing health care.**

If you've missed out on any of our past webinars and would like to learn more about hearing health, our webinar series is now available to view on-demand at your convenience.

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# SPRING CLEANING



**Have you ever thought about cleaning your hearing devices? Regular clean-and-checks are the best way to preserve your important investment.**

Moisture, heat, earwax and dirt can damage electronic components in your devices, but regular maintenance can help extend their life.

Your audiologists can give you a cleaning tool that consists of a wire loop, magnet and brush. This tool removes wax and dirt from hard-to-reach nooks and crannies in your hearing devices, and the magnet aids in battery removal.

**You can take steps at home to care for your hearing devices. Try the following cleaning tips!**

- **Apply hairspray and facial lotions before inserting your hearing devices.** Harsh products create a sticky residue that is a magnet for dust and dirt.
- **Wash and dry your hands before you handle your hearing devices.**
- **Clean your hearing devices over a soft surface** (a folded towel, for example) to prevent damage if dropped.
- **Clean your hearing devices daily with a dry, soft cloth.**
- **Do not use water, cleaning fluids, solvents or alcohol,** as they can damage your devices.

**While these home steps can help, the best way to ensure your devices are working properly is to take them into an audiology clinic for a clean-and-check.**



# Over-the-Counter Hearing Devices: Frequently Asked Questions

On October 19, 2021, the U.S. Food and Drug Administration proposed a rule to create a new category of over-the-counter (OTC) hearing devices. You may have questions about OTC hearing devices and your hearing health, so we'd like to help you learn more about them.

## Do I need a prescription for OTC devices?

No, you will be able to buy them without a prescription, meaning you won't have to get a hearing evaluation to purchase them.

## Are OTC devices for everybody?

OTC devices are only for adults ages 18 and older with mild-to-moderate hearing loss. If you have severe hearing loss or are under age 18, you will need prescription hearing devices.

## Are OTC devices pretty much the same as prescription devices?

Since OTC devices aren't on the market yet, it's hard to answer this question.

We do know that OTC devices will ship with factory presets. Every case of hearing loss is unique, so the OTC device might not be programmed prescriptively

to your hearing loss, and retailers will likely not provide adjustments. Prescription hearing devices offer advanced technology and are custom fit by a hearing professional trained to fit devices to provide the right amplification levels to help you hear your best.

## Is it okay to skip my hearing evaluation and buy OTC devices?

Hearing loss can change gradually over time, so getting a hearing evaluation before purchasing any hearing device is always a good idea, especially since OTC devices are only for certain types of hearing loss.

Skipping a hearing evaluation also means that your audiologist won't get a chance to check for any serious underlying medical issues causing your hearing loss, which could have long-term consequences for your health and may lessen satisfaction with any devices.

## Have more questions?

We're here to help—talk to our audiologists today.

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