

Phonak Field Study News.

New patented EasyGuard™ domes were preferred over traditional domes after a 4-month home trial

Phonak EasyGuard domes were evaluated by experienced hearing aid users during a 4-month home trial at the Phonak Audiology Research Center (PARC) to evaluate their performance in everyday use.

Sanchez, C., & Adler, M., October 2025

Introduction

Why did we want to make a difference in the wax management area?

Hearing aid users frequently experience device-related issues, with 98% reporting at least one problem¹ affecting their hearing experience. Among these, wax buildup is a significant yet often overlooked factor contributing to hearing aid malfunctions, including sound distortion, feedback, and reduced amplification. Despite its impact, over half of hearing aid problems go unreported¹, leading to unresolved issues that affect user *satisfaction* and *long-term adherence*. Poor hearing aid management skills, particularly in cleaning and maintenance, are strongly associated with increased device-related problems¹. Addressing wax-related failures with a more user-friendly solution can significantly enhance hearing aid reliability and the overall user experience.

From the study driven by Bennett et al., the authors pointed out that many hearing aid users struggle with maintaining small components like wax guards (e.g., CeruStop), with 29.61% reporting difficulty replacing them. Nearly half of these users sought help from their clinic, but the issue often remained unresolved. Poor wax guard maintenance can lead to sound blockage, weak performance, and device malfunctions due to wax accumulation. Additionally, many users lack clear guidance on proper cleaning and replacement, making maintenance challenging, especially for those with dexterity or vision impairments. Addressing these issues through better patient education and user-friendly wax guard designs could significantly improve hearing aid function and user experience.

During a 90-day journey into the performance of Phonak Audéo Life™, Miller (2022) pointed out already that wax buildup can significantly impact hearing aid performance, as

seen in cases where filters became clogged with cerumen, leading to device failure². However, replacing the receiver restored normal function, highlighting the crucial role of the wax filter in protecting it. Users with excessive cerumen production may need to change filters more frequently to maintain optimal performance. Regular troubleshooting should include checking and replacing wax guards before assuming hardware issues, ensuring long-term hearing aid functionality.

Maintenance plays a crucial role in hearing aid retention or rejection. The study by Marcos-Alonso et al., 2023, highlights that difficulty in handling and maintaining hearing aids, including cleaning and replacing small components like wax guards, contributes to device abandonment. Users who struggle with manual dexterity or lack knowledge about proper maintenance are more likely to reject their hearing aids. Additionally, discomfort caused by wax buildup or improper device care can lead to dissatisfaction.

Our internal Sonova data collection points out the link between filters changes and services cases

With data collected from 2601 incidents from November 2023 to June 2024, 38% of the service cases resolved in stores or clinics are related to cleaning and wax filter changes, highlighting the importance of regular maintenance for optimal device performance and that 33% of all service cases are resolved through filter replacement.⁶ These observations underline the importance of the wax filter within the services cases in clinics. Facilitating wax filter management appears therefore as a key point in the user experience and the reliability of the hearing aid. EasyGuard was designed with the objective in mind to address these 38% of services cases by improving the wax management by the consumer in a user-friendly solution, and to give the HCP the opportunity to focus on what matters during the consultation. The results of the Phonak Audiology Research Center (PARC) study, as reported later in this paper, confirm the customer satisfaction, the comfort of the EasyGuard in the ear, the efficiency benefit in the consultation and the ease of use.

Phonak patented EasyGuard™ domes reduce the struggle of wax filter changes.

EasyGuard™ features a sound-transmitting, sealed membrane that protects the receiver from earwax.

We saw that better education and support from healthcare professionals on maintenance routines, including wax guard replacement, could significantly improve adherence and reduce hearing aid rejection rates. To facilitate the education of the client, we developed EasyGuard. The solution consists in an injection-molded dome incorporating an integrated shield or membrane that creates an extra wax barrier to the entrance of the receiver. The primary objective of EasyGuard is to minimize the need for a traditional wax filter, but the CeruStop can be left for convenience and also for extra protection during the time periods wherein the dome is exchanged, and the receiver nozzle is exposed.

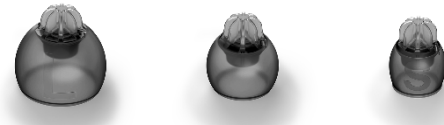


Figure 1. EasyGuard vented domes in 3 sizes.

The EasyGuard design features a sound-transmitting membrane that seals the receiver, creating a new wax barrier between the nozzle for the receiver and the dome. Apart from the necessary modifications required to ensure the manufacturability of this wax-shield, the geometry of the domes remains unchanged. A secondary objective of the new dome is to position the CeruStop filter as a secondary wax barrier, situated between the newly integrated Wax-Shield membrane and the receiver nozzle. In other words, the receiver, equipped with the CeruStop wax guard, is now sealed by a mechanical structure comprising a set of membranes, thereby providing a significantly enhanced protection of the receiver.

The hearing aid components are already protected through durable coating ensuring a prolonged lifespan and consistent performance even in the most demanding situations, such as contact with water or sweat. The EasyGuard solution now offers an additional layer of reliability through its sealed membrane between the ear canal and the receiver nozzle to reduce the need for frequent replacement of the existing filter. Consequently, this innovation decreases the frequency of maintenance required for this component. Ultimately, this technical advancement is expected to relieve users of the need to replace the CeruStop filter themselves, thereby improving convenience and usability by simplifying the maintenance of the wax buildup. Cleaning the dome is easy and only requires a dry cloth applied on the tip of the dome.

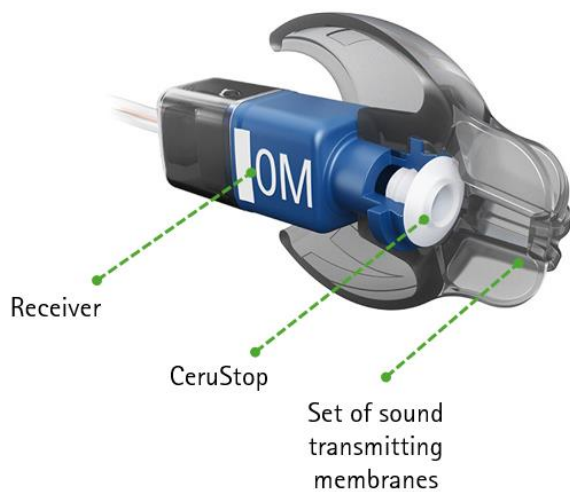


Figure 2. EasyGuard mounted on a receiver with the CeruStop system.

Sound transmitting membrane

Adding an extra new layer between the receiver output and the dome output can raise concerns or questions about the acoustical performance. Figure 3 shows that there is no significant gain loss or output loss compared to a traditional dome system.

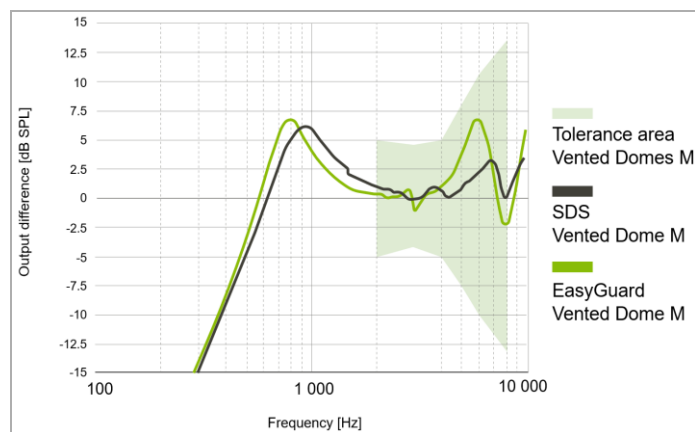


Figure 3. Output differences are shown as a function of frequency in a 2cc coupler. EasyGuard output closely matches that of vented domes.

Figure 3 shows two curves: The black curve represents the output difference between a measurement of a receiver with the dome mounted in a channel attached to the 2cc-coupler and a measurement with the receiver nozzle directly connected to the coupler. This results in a vent effect at low frequencies and some small differences at high frequencies due to a difference in acoustic properties of the dome compared to those of the receiver nozzle only. The green curve shows the same, but then for the new EasyGuard Vented Dome M. The difference between both curves is small and within the tolerance area indicated in the figure. As such, the results suggest equivalency of acoustic performance between EasyGuard and existing domes.

PARC study

In a study conducted at the Phonak Audiology Research Center (PARC) between November 2024 and March 2025, EasyGuard was investigated in a group of experienced hearing aid users. Subjective feedback after a four-month home trial was obtained.

Methodology

Participants

Twenty participants were enrolled in the study, with one withdrawing from the study for personal reasons after 6 weeks of wearing time. Nineteen participants completed the study: 7 female, 12 male ages 59 to 92 yrs ($m=74.9 \pm 7.5$ yrs). Participants were all experienced hearing aid users with bilateral sensorineural hearing loss in the mild to moderately severe range (N2-N4 per IEC 60118-15)⁵ appropriate for being fitted with a vented dome.

Hearing Aid Fitting

Participants were fitted with Phonak Audéo Sphere Infinio or Phonak Audéo Infinio receiver-in-canal (RIC) devices. Hearing aids were programmed to participants' most recent audiogram (no more than 12 months prior to study enrollment) using vented EasyGuard domes. A feedback test was completed and if necessary, a change in dome size was completed to ensure an appropriate fit without gain restrictions.

Procedure

Participants visited the lab for monthly check-in visits during their 4-month home trial. After 4 months of use, they provided subjective feedback on comfort, satisfaction, likelihood of recommendation and preference for dome type after wearing the EasyGuard dome.

Results

Thirteen (68%) of the participants indicated that with their own hearing aids, they remove the dome from the receiver to clean and/or change the wax filter. Of these thirteen participants, 61% indicated that EasyGuard reduced the time spent cleaning ear wax from hearing aids compared to their own domes (Fig. 4).

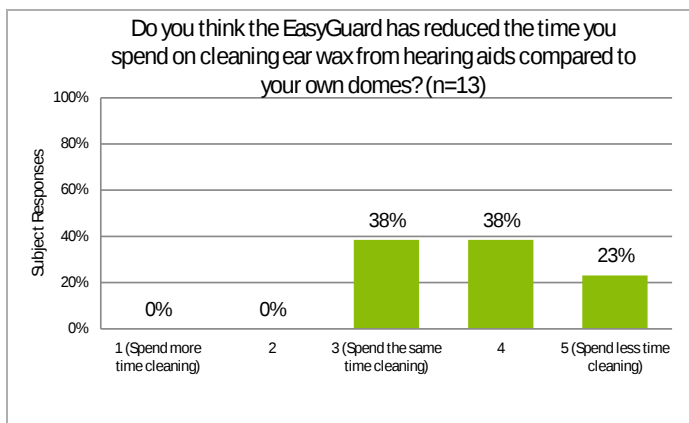


Figure 4. The percentage of participants indicating the EasyGuard has reduced time spent on cleaning compared to their own domes.

After 4 months of wearing time, 90% of the participants indicated that EasyGuard was as comfortable or more comfortable than their own dome (Fig. 5).

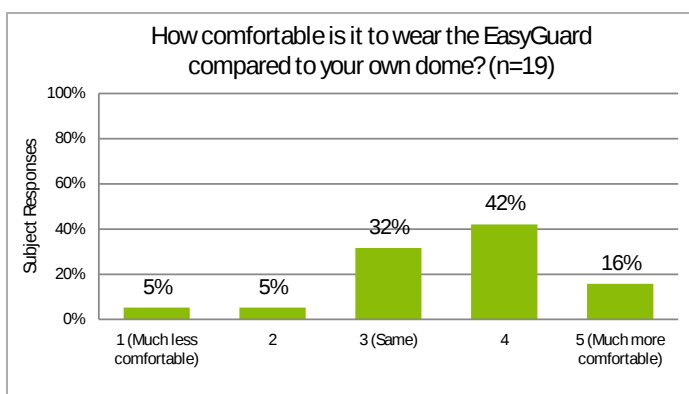


Figure 5. Percentage of participants indicating the comfort of the EasyGuard compared to their own dome.

The participants were asked if EasyGuard improved their overall satisfaction with the hearing aid after wearing them for 4 months. Fifty-eight percent of the participants indicated they "agree" or "strongly agree" (Fig. 6).

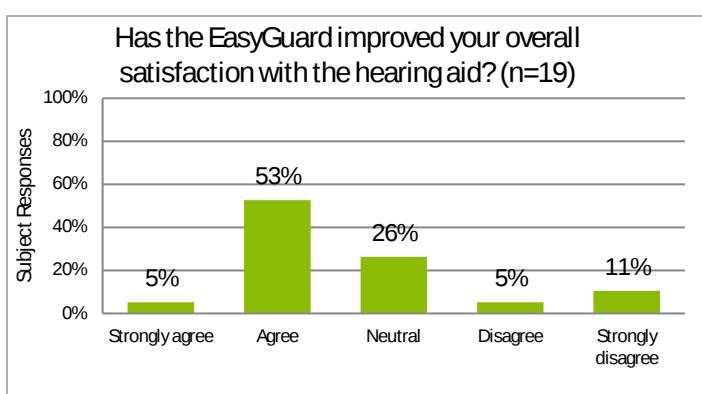


Figure 6. Percentage of participants indicating EasyGuard improved overall satisfaction with the hearing aid.

When asked how likely is it that you would recommend the EasyGuard, 79% of the participants indicated "likely" or "extremely likely" (Fig. 7).

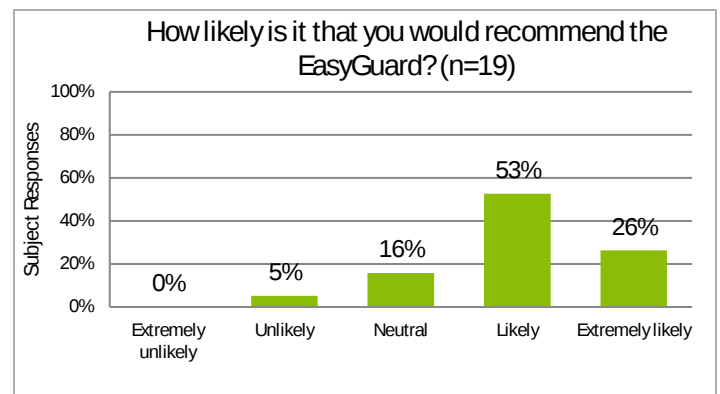


Figure 7. Percentage of participants likely to recommend EasyGuard.

Lastly, when participants were asked which dome type was preferred, 89% of participants indicated the EasyGuard or no preference, with 68% of the participants preferring the EasyGuard. Eleven percent of participants preferred their own/traditional dome (Fig. 8).

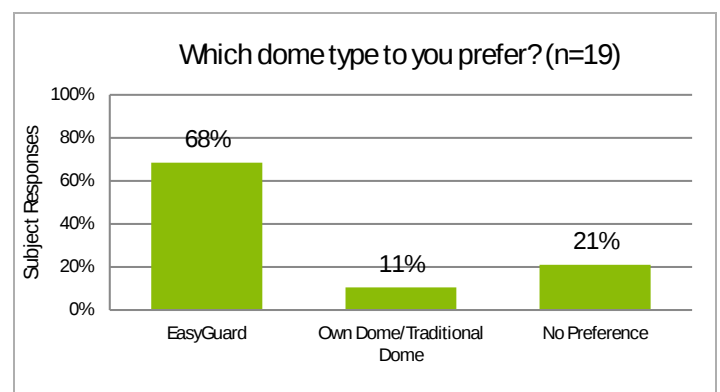


Figure 8. Percentage of participants preferring EasyGuard over their own dome.

Conclusion

Maintenance plays a crucial role in hearing aid retention³, as poor upkeep often leads to device rejection. Earwax buildup is a significant issue, causing blockages that degrade at best sound quality, at worst hearing performance (e.g. speech understanding). Wax guards, such as CeruStop, help prevent this, but they require regular replacement to remain effective. Users who fail to clean or replace these guards may experience feedback, reduced amplification, or complete device failure, leading to frustration and non-use. Proper maintenance, including regular cleaning and component replacement, significantly improves hearing aid performance and user satisfaction, ultimately reducing the likelihood of abandonment. But we have also pointed out that the user is not changing the filter on a regular basis due to the size of it, the dexterity of the user or the overall complexity of the procedure. Improving the ease of the wax management with EasyGuard protects the receiver nozzle to wax build up, eventually increasing the reliability of the system, ensuring its performance and free time, smooth the

workflow and the potential frustrations during the consultation with the HCP who can allocate this time to other topics around the hearing aid and his/her client.

Results from this 4-month home trial study with EasyGuard indicate that it was durable, reliable and comfortable. Over half of the participants who regularly remove the dome from the receiver to clean and/or change the wax filter indicated they thought the EasyGuard reduced the time spent cleaning ear wax from hearing aids compared to their own hearing aids.

References

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Authors and investigators

Author

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Clément is the Senior Audiology Manager in the Phonak RIC team (Sonova HQ). He joined Sonova in 2024 and his collection of background includes his clinical audiology degree from the ILMH of Brussels (2001), an MBA in technology management from the Technical University of Denmark (DTU) and a Certification in Radical Innovation from the MIT of Cambridge. He has been working in both ENT and hearing aids dispensing practices, as university lecturer in France, and since 2005 he has been working in the hearing industry in training and education, product management and customer support.

Internal investigator/Co-Author

Megan Adler, Au.D.



Megan is a Research Audiologist with Sonova. She joined Sonova in 2008 and previously worked in Technical Support as part of the Customer Success Team and with US Validations. Her prior Audiology work history includes fitting and dispensing for adults and pediatrics at an Ear, Nose and Throat office. She earned her M.A. in Audiology at Northern Illinois University and Au.D. from Pennsylvania College of Optometry (now called Salus University).

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One-page summary

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Phonak EasyGuard was evaluated by experienced hearing aid users during a 4-month home trial at the Phonak Audiology Research Center (PARC) to evaluate its performance in everyday use.

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Key highlights

- 61% of the thirteen participants who regularly remove the dome from the receiver to clean and/or change the wax filter indicated EasyGuard reduced the time spent on cleaning ear wax from hearing aids compared to their own hearing aids
- By protecting the essential parts of the hearing aids from wax, EasyGuard is designed to reduce the 38% of the service cases resolved in stores or clinics that are related to cleaning and wax filter changes
- 58% of the participants indicated that the EasyGuard was more comfortable than their own dome

Considerations for practice

- EasyGuard features a sound-transmitting, sealed membrane that protects the receiver from earwax, reducing the need for service and time required to train patients on maintenance
- EasyGuard offers more time with patients and allowing for better optimization of clinic scheduling, confidence in knowing hearing aids are performing optimally
- The CeruStop filter is still placed in the receiver port, to serve as a fallback protection, protecting the receiver when the dome is being exchanged. The presence of this filter does not affect the acoustic performance.