

COVID-19 mask programming adjustment guide



COVID-19 and hearing aid personalization

As we continue to conduct our daily lives during COVID-19, some patients have encountered difficulty understanding those wearing a mask while in conversation. In particular, those patients who are not wearing contemporary Oticon technology with OpenSound Navigator™ and Speech Guard™ may be experiencing this challenge.

As a result, there may be a need to make personalization setting adjustments to hearing aids to compensate for this difficulty in speech understanding.

This guide is intended to assist you when making those adjustments in the Genie fitting software.

Oticon advanced technology minimizes personalization

In general, our view on the role of personalization has changed over time because of important advances in Oticon technology like Speech Guard and OpenSound Navigator.

These breakthroughs in signal processing speed minimized the need to make personalization adjustments to compression speed, frequency response, threshold and reaction time which were based upon the cognitive abilities and preferences of the patient. Older technology could not process speed in milliseconds and did not have advanced adaptive systems that currently are inside our latest product portfolio.



Masks and Speech Understanding

We know that the use of a non-transparent mask can disrupt speech communication for a listener with hearing loss. Masks both attenuate the level of the speech in the important higher frequencies and eliminate most visual speech understanding cues.

The simplest way to address this problem is to create a second program for the user.

Creating a second program is not complicated, however, there are some details to consider.

- Based upon published information* masks will attenuate above 2k Hz anywhere from 4 to 12 dB.
- There is a danger in turning up all the highs by 10-12 dB because by default all environmental sounds will also be increased and sound quality and feedback issues can also be created as a result.
- One suggestion is to boost the soft gain in the high frequencies (> 2k Hz) about 3-4 dB for most masks and 5-10 dB for more substantial masks.
- Moderate gain should only go up about half of that and no increases for loud gain.
- If you are making the corrections for a more substantial mask, make sure you check with the patient for tolerance, sound quality or feedback concerns.

Another strategy is to remind the loved ones of the hearing aid user to practice Clear Speech.

- Adopting a clearer speaking technique can partially offset the effects of the mask.
- The Clear Speech approach is the responsibility of the speaker to talk in a clear and concise way that produces a definite change in speech pattern through the expression of every syllable of each word.
- Words which are pronounced more precisely, without missing certain elements or dropped endings, result in a louder and easier to understand conversation.

Other considerations to remember when having conversations in general.

- Reduce background noise by holding conversations in less noisy settings.
- Hold conversations within the same room as the person wearing the hearing aids.

*Goldin PhD, Weinstein PhD, Shiman, How do medical masks degrade speech perception? Hearing Review. May 2020.