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## **Noise reduction with AI: Just marketing or a real benefit for the hearing aid user?**

Since the introduction of digital signal processing, algorithms for noise reduction have been implemented in hearing aids to support the hearing aid user in noisy situations. However, these algorithms have only been able to marginally improve speech understanding in noise.

The new Infinio hearing aid platform from Phonak implements a system that filters the audio signal using artificial intelligence (neural network). This segregates the target from the interfering signal so effectively that not only the ease of listening, but also speech perception is significantly improved.

The practical benefits of this new system were tested in clinical studies with a total of fifty subjects. All subjects were fitted with Audéo I90-Sphere and, depending on the clinical centre, measurements of speech understanding and listening effort were carried out in complex listening situations as well as in real environments.

The data shows that this new system provides both better speech understanding and reduced listening effort, particularly in complex listening situations.