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Harnessing human factors in hearing aid design and usability

The discipline of human factors engineering is the application of physical and psychological characteristics that influence the design of interactive systems involving people, tools and technology, as well as work environments to ensure product safety, effectiveness, and ease of use. In hearing technology, these factors help guide the entire ecosystem including hearing aid hardware, fitting software, mobile apps, accessories to ensure a seamless user experience start to finish. The result is a design that is intuitive and easy to use for all.

Building an ecosystem from the ground up required the most robust research methodology designed to obtain thousands of professional and patient feedback points for each interaction. Each segment started by leveraging internal market and clinical research, followed by focus groups, surveys and then iterative user experience and usability testing. There were more than 200 professionals and 500 patients that participated resulting in 11,000 hours of in-field wear time.

This lecture focuses on the physical, cognitive, social, and emotional human factors that must be considered in the development of state-of-the-art hearing systems. Data collected over the last two years from global focus groups and clinical studies with hearing professionals and patients will be shared.

The outcome of this session will be a thorough and thoughtful review of the most relevant aspects to consider in human factors design with better hearing, connection, health, safety, and independence at the forefront.