A quantitative view of the relationship between external ear canal keratin status and success in adaptation to hearing aids

Hearing care professionals and hearing aid manufacturers still report untenable levels of remakes, returns for credit, and cases of failure to fit for a variety of reasons. Hearing aid discomfort, own-voice artifacts, and cost/benefit perceptions top the list of reported reasons. In the present study, the status of the keratin or corneum stratum in the external auditory canal (EAC) has been found to negatively or positively affect hearing aid adaptation. These include keratin's role in preventing oversensitivity in EAC mechanoreceptors (hair follicles, Meissner corpuscles and Pacinian corpuscles) and their subsequent neuroreflexes (Arnold's Branch, Trigeminal, and Lymphatic Reflex), which affect own-voice perception, insertion and removal, wearing comfort, and coupler adaptation.

Biography

Max Stanley Chartrand serves on the advisory committees to the American Tinnitus Association, the Better Hearing Institute, Audiology Online, and is a professional member of the Society of Behavioral Medicine, on the Federal & State Advocacy Committee of the International Hearing Society, and the Advisory Committee for the Arizona Division of Hearing Aid Dispenser Licensing. He is also a Professor of Behavioral Medicine and has served on numerous doctoral research committees relative to human health and the hearing sciences. In 1994, he was recipient of the Joel S. Wernick Excellence in Education Award, and has published and lectured extensively throughout the world over the past four decades.

Chartrandmax@aol.com