



Mark Ross, Ph.D.

## Interview

With Mark Ross, Ph.D.

*Good Morning, Mark. Thanks for being the first “interviewee” in the new Oticon Clinical Update.*

I am honoured, Doug. It’s nice to work with you, again, too.

*Mark, regarding amplification, what key concepts would you like professionals to keep in mind?*

Not to be critical, but there are a few. For example, hearing aids alone cannot resolve problems caused by hearing loss. However, hearing aids are the foundation upon which the rest of the program is built. Hearing loss is best addressed by the professional and the patient working together. The individual needs of patients at work, home and recreation need to be identified and managed through appropriate amplification using hearing aids, assistive listening systems and other helpful technologies. And, of course, this means that an individualized or group-based aural rehabilitation program is always a good idea.

*As professionals we haven’t always gotten the word out that there’s more to the process than hearing aids. Some clients/patients think once they get their hearing aids “OK, I’m finished.” However, your point is well taken; although hearings aids are the foundation, they are not the whole program.*

Exactly. For example, I use my hearing aid T-Coils and my FM all the time to make difficult listening situations better. As you know, I call my personal FM system my “third ear.” I have a binaural profound hearing loss and I use a neck loop with both T-Coils while using the telephone and I do pretty well.

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*Mark, I wonder if you would comment on using advanced technologies when fitting children?*

I think we all agree that we need to identify and treat children with hearing loss as quickly as possible. Children treated earlier have the

best outcomes with respect to speech, language and other measures, too, and children have different auditory needs than adults. Because children are learning speech and language, every sound is important. In fact, thanks to newborn hearing screenings, children are sometimes fit with amplification at 2 and 3 months of age - and that’s fantastic. Of course we’re all looking forward to paediatric outcome-based studies using advanced technology, but in the meantime, if the technology is good and beneficial in adults, it may be appropriate to offer it to children, too. The audiologist and the parents have to make the best possible decisions for the child, based on the child’s specific needs. For example, adaptive directionality may be appropriate for children because speech and noise are dynamic and originate from multiple locations and sources, often at the same time. I think it’s fair to say that if adaptive directionality is beneficial for adults, it’s likely good for children, too. But, of course, insofar as children are concerned (unlike adults) the theoretical advantages have to be confirmed through consistent and sensitive clinical observations.

*What about noise reduction in paediatric fittings?*

In general, noise reduction systems are probably a good thing. We know they make it more comfortable



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for adults wearing hearing aids to listen in noise, even though there is no direct evidence confirming superior speech perception scores. When noise reduction circuits first became available, there was concern that noise reduction potentially reduced speech sounds while reducing noise, and that's a reasonable concern, as children need to hear all speech sounds.

*Yes, that's been an ongoing concern. Noise reduction circuits for children must protect speech sounds. Fortunately, the latest generation of hearing aids with dedicated speech detectors protect critical speech components while attenuating background noise. Mark, can you comment on your experience with dynamic feedback cancellation (DFC) and your thoughts regarding DFC and paediatric fittings?*

DFC allows me to successfully wear hearing aids. In fact, last year (2005) I was considering a cochlear implant because I couldn't get sufficient audibility out of my power aids without acoustic feedback. Imagine if a child experienced acoustic feedback every time he/she moved their head in a certain way, or hugged their mom or dad, or moved their jaw. Very quickly they would learn to dislike the hearing aid, and so I am a proponent of DFC.

*I know you were an early proponent of FM systems, too. Can you tell me your current view on FM systems?*

I was an early adapter regarding FM systems and I use them quite a lot myself. We published a couple of studies in 1971 and 1973 on the classroom use of an FM system and we showed that by using FM to improve the signal-to-noise ratio, speech perception went up dramatically. I believe it is very important to have FM

systems for children in schools, and very important for adults as well, particularly when their hearing loss progresses into the severe and profound range.

*Any other key concepts you'd like to mention?*

There are a few other things for the professional to keep in mind. Everyone needs to communicate using the phone. We can assure phone communication using many systems; FM, T-Coils, Hearing Aids, Neck Loops, Instant Messages, amplified phones, TTY's, the CapTel system, etc...whatever works for the individual must be done. People also need access to their televisions via closed caption as well as via sound transmitted through FM, infrared and induction loops. I also encourage all hard-of-hearing people to attend a short-term group aural rehabilitation (AR) program -- after they acquire appropriate amplification -- to learn about care and maintenance of their hearing aids and other useful devices and communication strategies. AR works in creating more satisfied patients, obtaining more referrals, decreasing returned hearing aids and creates loyalty. Lastly, Smoke and Fire Alarm detection systems must be available for hard of hearing and deaf people. All of the tools I mentioned are available commercially, they make an enormous difference, and they impact the quality of lives of the clients/patients.

*Thanks for many contributions to our profession, and to the clients/patients we serve.*

Thanks Doug. It's my pleasure.