

# AUDITORY THERAPY

## “TRAINING the BRAIN to LISTEN”

Adapted from The Hearing Journal, Volume 58, Num. 6, 2005, Dr. Robert R. Sweetow

### What is the difference between hearing and listening?



Hearing provides a person with acoustic information (sound). Listening, however, requires the brain to focus, attend and interpret the sound. The brain must bring in the signal from the ear; hold the information in its working memory, then access that memory and use its language comprehension system to make sense of the sound. Hearing, listening, thinking, and the use of language lead to comprehension and understanding.

All parts are needed to have successful conversations.

### Does normal hearing guarantee that I am a good listener?

No, normal hearing alone does not assure that one is a good listener. We all know people who have normal hearing but are poor listeners. Conversely, many of our patients have impaired hearing, yet are wonderful listeners. Listening is a skill that requires training and effort, and for a person with any hearing loss, that effort must be particularly concentrated.

### Okay, I understand that if you have a hearing loss you might not have full access to all the sounds that a normal-hearing person has; but don't hearing aids give us everything we need to be good listeners?

No. As advanced as hearing aid technology has become, hearing aids alone cannot produce the listening skills or comprehension needed for communication. Hearing aids are designed to provide access to as much acoustic information as possible (loudness), but they do not directly teach a person's brain to interpret the new sounds, nor do hearing aids correct for distortions due to damage to the inner ear. Even with all the advances in hearing aids, they do not provide a perfect representation of sound.

### So, why aren't hearing aids alone enough to do the job?

The brain is constantly reorganizing (rewiring) itself. When the brain hasn't had adequate acoustic information (sounds) due to hearing loss, the brain stops using a large amount of the neurological pathways associated with hearing. The brain actually “shrinks” when hearing loss is untreated. The brain is remarkable in its ability to continually reorganize itself. This is called neural plasticity. When you get a new set of hearing aids, they do not come with the neurological pathways needed in the brain to make full use of the hearing aids. Those pathways have to be rebuilt thru Auditory Therapy.

### But once we put on hearing aids and the brain begins to receive stimulation once again, won't the brain automatically readjust and rebuild?

It is likely that there is some degree of rebuilding that occurs. However, it may not be enough and it may take a very long time. Auditory Therapy will jump start this rebuilding process and will lead to much greater neural changes than if a patient just waits for the change to happen on its own. Think of immediately trying to walk again after a knee surgery; physical therapy is mandated for you to learn to how to properly walk again. It's the same when your hearing has been damaged. The hearing aids will help repair the damage but you really do need auditory therapy to be able to effectively listen and understand again. **Auditory therapy is like having physical therapy for the brain.**

### **I've had my hearing aids for a while and I am still not as comfortable as I want, why?**



Here again, we have two problems. First, remember hearing aids do not provide a perfect representation of sound. Second, the brain has not reorganized the neurological pathways of the auditory cortex to make full use of sounds the hearing aid is now providing. When patients invest the time to complete auditory therapy, they are much better able to adjust to and use their hearing aids. This adjustment period is not just a process of getting used to the new hearing aids. It is also a process of the brain developing the neurological connections for better listening skills. It takes work on the part of the patient and some time; just like physical therapy does.

### **What is auditory therapy?**

Auditory therapy involves a language comprehension evaluation by a specially trained speech-language pathologist followed by a defined plan of therapy sessions to build neurological pathways. The therapy develops new listening skills in the areas of speech comprehension in various difficult listening situations, such as background noise, two or more people speaking at the same time, and rapid speech. It also focuses on improving your working memory for words. Additionally, patients learn a variety of communication strategies to apply to various situations. All of these new skills combine to improve your ability to understand and communicate.

### **What kind of results can I expect from completing Auditory Therapy?**

The average patient is able to improve their word comprehension and understanding by 40% or more after completing therapy. Most patients report a significant improvement in understanding speech.

### **This sounds very interesting! How do I learn more?**

Call the Americans for Better Hearing Foundation Auditory Therapy Clinic in Downers Grove at **630.324-0026** to schedule a free consultation with the Speech-Language Pathologist (SLP).

### **Is the Therapy covered by Medicare and other insurance?**

Yes!! The Auditory Therapy is covered by Medicare and many other insurance plans (depending on the plan) with a doctor's order. It is not, however, covered by Medicaid.

To accelerate the process, ask your family doctor for a doctor's order or a "script" for "**Speech-Language, Hearing Evaluation and Therapy**" or you can see a doctor at the Clinic. Then, call the clinic to schedule your consultation, evaluation, and therapy with the Licensed Professional.

The ABHF Auditory Therapy Program is now offered at:



The Warren Avenue Clinic  
1034 Warren Ave,  
Downers Grove IL 60515  
(630) 324-0026

**The Clinic is only one block from the Downers Grove Metra Station**

Check with the Foundation at (630) 321-3555 to learn if any of the other planned Auditory Therapy Clinic locations have been opened.