## Can You Hear Me Now?

## by Dr. Rayma Ditson-Sommer, PhD

We have all seen the cell phone commercial asking **can you hear me now?**Seemingly they are always heard. No so in real life! A large percentage of people do not attend to sounds enough to process them for use. Many children and adults have learning difficulties or behavioral challenges. Some seem attention deficit; others personality disordered and still others are just **out of sync**. All have problems that originate in poor sensory integration which include auditory processing disorders, visual development lags, poor motor development, difficulty learning and poor interpersonal relationships.

There are specific diagnostic clues that put these individuals into a specific group. An inability to remember lists of things heard, poor coordination, mental confusion, interpersonal relationship challenges and many other **out-of-sync** characteristics including seemingly being **lost in space** at times are diagnostic.

A milieu approach developed to diminish difficulties should include hypnotherapy, vestibular stimulation therapy, visual perceptual training, brain synchronization and nutritional intervention. Dr. Jean Ayres, one of the leading pioneers of the concept of sensory integration, felt that all our senses must work equally. In other words, the sense of touch, smell, taste, sight and sound must work together and that the above senses, along with movement and body awareness, must work harmoniously.

Ayres beliefs center on the thought that the senses send gathered information to the brain where it is interpreted and organized. This is what is called **sensory integration**. According to Ayres, if a sensory input fails and does not work in harmony with the others, the learning process and quality of life are compromised. She believed also that the vestibular system was responsible for body control and that a well-modulated vestibular activity is mandatory for maintaining a calm, alert state. Rocking in a chair, swinging, spinning in an office chair, all can help in vestibular development to improve sensory integration.

Some people stimulate their brains through constant moving. These individuals are labeled hyperactive and many medicated to stop the movement. This then, delays the continuing development that is necessary for adequate function, causing learning difficulties, developmental lags, behavior disorders and a marked inability to succeed as adolescents and adults. They possess a need to control their environments throughout adulthood damaging most interpersonal relationships.

Many of these individuals have auditory processing difficulties. Some experienced loud shouting, mechanical noises, screaming or physical abuse as children and now **shut out** certain hearing frequencies. This defense mechanism, useful when needed, proves difficult to strengthen later in life when sound is necessary for normal daily living.

This exaggerated survival need continues into adulthood without discovery, making many therapies difficult and non-progressive. For this reason therapies must recognize the lack of processing abilities in these clients and recognize that successful outcomes may not be possible until prior work is done to improve auditory processing.

To better understand the auditory process it is important to understand that at one time it was accepted that both ears were identical. This is physically not possible. The right ear is connected to the left brain, the area where language is processed. The left ear, however, is connected to the right brain where language cannot be processed. Therefore, language must be transported over the corpus collosum (the bridge between the hemispheres) to the left brain. This is a slower connection but also a less reliable one. During the **crossover**, high frequencies are lost which are required for interpreting language. It is imperative that **talk therapies**, etc. realize that auditory processing may not be taking place and visualization may be the modality more successful.

As stated earlier, learning requires focus. Complete focus is difficult when hearing is controlled by bone conduction only. Hearing is a function of the entire body, not ears only. The bones of the body are particularly good sound conductors, actually, too good. Loud noises, loud voices are particularly distracting to those who **hear** every sound in their environment. Rooms in schools or the workplace are extremely noisy for the person who cannot screen sounds and can hear everything. The scratching of a pencil on paper, breathing, shuffling of feet, chairs moving in the workplace are reasons for distraction from the task at hand.

To these individuals all sounds are abusive and they immediately shut out sounds for protection. Thus, any auditory input is cancelled and the person is left to try to decide what is happening. Without auditory guidance behavior suffers and the lack of ability to focus is augmented.

In any auditory processing disorder, sound is heard but the act of processing through the brain is impaired. The sounds are transmitted directly to the inner ear without any filter to dampen the intensity, letting the sounds arrive in the brain without warning producing a reflex reaction. A startle-reflex, physically lashing out, or anger can result. People experiencing this bombardment of sound have no ability to **tune out** extraneous noise around them. Every sound has the same amount of value. They try to catch a word but the noise from somewhere else distracts them and they miss part of the auditory process. They do not know what instructions were given or what the conversation was about. **As a result they are blamed for not paying attention and experience:** 

- 1. Being overwhelmed
- 2. Difficulty in learning
- 3. Being ashamed that they cannot focus

- 4. Constantly being behind in work
- 5. Highly distracted
- 6. Constantly confused by sound overloads
- 7. Inferiority complexes
- 8. Need to control environment
- 9. Anger
- 10. Anxiety/Panic

In order to cope with these difficulties, people with auditory processing difficulties continually:

- 1. Tune out
- 2. Become lethargic or quiet
- 3. Over react to input
- 4. Jump from one topic to another when talking
- 5. Resemble attention deficit behavior
- 6. Cannot carry on a conversation

Any program that will help these individuals must be based on many disciplines. An eclectic approach is mandatory. To date there is no one single modality for improvement but the combination of dominant right ear training, stimulation of the vestibular system, audio-visual stimulation and hypnotherapy will help these people improve their quality of life.

It is important to remember that a relaxation response and synchrony (brain balance) are necessary components for any therapeutic regimen. To further enhance auditory processing use the Sportslink Focus Trainer on session 11, then session 7 alternately. Help your clients LISTEN ON THE RIGHT ROAD. An added tip involves using a cheap set of earphones, cutting the wires to the left earphone and direct all sounds of your voice, music or binaural sound into the right ear only. This will help develop dominance in the right ear and balance the brain function to improve attention and auditory processing ability.

For additional information you may email Dr. Sommer at opnet2@aol.com