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Occupational Therapy Intensive/Auditory Integration Training

Auditory Integration Training (AIT) is one type of sensory integration technique that has been found to have potential in the treatment of sensory integrative disorders in individuals with autism, autistic-like behaviors, pervasive developmental disorders, attention deficit disorders, dyslexia, learning disabilities, and hearing sensitivity difficulties.

AIT is a procedure which enhances aspects of auditory and vestibular (inner ear) perception. Currently, a diagnosis of auditory/vestibular processing deficits and/or strongly noted environmental auditory and movement sensitivities are good indicators of the need for AIT.

Benefits

There are many encouraging preliminary reports from families who have participated in AIT. These early findings include the following changes during and/or after AIT:

Improvements:

- Attention to auditory stimuli
- Memory for routine information
- Articulation
- Average length of vocal/verbal utterances
- Vocal intensity (loudness)
- Independent living skills
- Auditory comprehension
- Appropriate social behaviors
- Responsibility in school
- Body awareness, spatial awareness, and balance

Reductions:

- Fearful or negative reactions to movement
- Hypersensitivity to sounds
- Irritability, yelling, tantrums
- Lethargy
- Echolalia
- Perseverative behaviors and self-stimulatory behaviors
- Impulsivity, restlessness
- Distractibility

Behavioral changes during and after AIT

Some participants exhibit unexpected behavioral changes during the 10 day AIT period. These behavioral changes might include agitation, increased activity level, and rapid mood shifts or swings. These behaviors should not be viewed as negative or as regression. Rather, they are signs of a nervous system in transition. After AIT, other behaviors changes may occur and might include an increase in emotional behavior (i.e. anger, crying), increased independence (i.e. walking away from a parent in a store), social growth (i.e. increased interaction), and an increase in attention span.

Auditory Integration Training Procedure

Specifically designed equipment is necessary to perform AIT. The equipment modulates or randomizes high and low frequency sounds, as well as intensity levels, from a music source and sends these sounds via headphones to the AIT participant. The modulation of frequencies and intensity levels reduces the participant's ability to predict an incoming auditory signal, thus not allowing the brain to habituate. Additionally, sounds that the participant hears "too well" may be filtered from the music.

The participant receives AIT for a half-hour period twice daily for 10 days. There must be a three or more hour time period between the first and second sessions each day. Participants will receive AIT on the Auditory Tone Enhancer/Trainer machine developed by BGC Enterprises in San Diego.

Other sensory integrative techniques such as tactile, proprioceptive, and vestibular input are added to the AIT program in order for the participant to receive maximum benefit. Opportunities for discussion will be available during the training to assist the family and the participant to capitalize on the positive effects of the treatment.

For more information, please contact Sandra Newton, MEd, OTR/L at DTA, 919-493-7002.