

## SOUND BASED THERAPIES: AUDITORY INTEGRATION TRAINING

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**Sensitive hearing.** The second therapy, in this sound based therapy series, reviews a therapy that addresses the remediation of hypersensitive hearing. This sensitive or hypersensitive hearing manifests in pain, discomfort or withdrawal. The therapy is called Auditory Integration Training (AIT).

While searching for a way to help his own hearing problem, Dr. Guy Berard, a French Ear, Nose, and Throat physician, and student of Dr. Tomatis, developed this sound based therapy that alleviates hypersensitive hearing.

Dr. Berards Auditory Integration Training “**retrains**” the acoustic reflex muscle located in the middle ear cavity. This muscle protects the body from the harmful effects of loud sound. Listening becomes uncomfortable when the muscle works overtime, because it is reacting to softer sounds than necessary. People react by covering their ears, cringing, staying away from difficult situations, or tuning out.

Dr. Berard developed AIT on the principle that if the ear was partially blocked or painful, successive flexing and extensions of the middle ear muscles would increase mobility and decrease pain. These flexing movements, influence portions of the brain that correlate with the auditory pathways. The method introduces sound randomly to the auditory system, alternating low or high-pitched sounds. This stimulation increases blood flow to the auditory system as well as to the brain. His therapy is based on mechanotherapy or improvement by mechanical means.

### THERAPY

Dr. Berards AIT therapy requires specific protocol adherence: pre, mid and post audiograms and the use of patented equipment. The special Dr. Berard audiograms establish a baseline and may identify certain frequencies to be deleted from the listening protocol. The participant listens to specially chosen music for a half an hour twice a day. The music is randomly played between the ears while alternating high and low portions of the music. The patented equipment transforms music via a variety of amplifiers and filters, working within all frequencies of the sound spectrum.

The therapy sessions exercise the muscles in the middle ear cavity. These muscles are strengthened and the body’s reaction to sensory overload improves. The auditory areas of the brain are also stimulated and the auditory cortex is reorganized and improvement is noted. The therapy lasts for 10 days after which the muscle is retrained.

The reactions and effects from AIT occur because of the areas stimulated. The most commonly reported are: increased eye contact, a calmer demeanor, better attention to sound and improved sleeping. Some nausea and aggression may occur.

Significant recognition for Dr. Berard’s AIT therapy has come from within the autistic community. It was introduced to the United States after the publication of “Sound of a Miracle” by Annabel Stehli in the

early 1990's. Her book told the story of her daughter's triumph over autism by using Dr. Berard's Auditory Integration Training therapy.

Since then, case studies have noted additional effectiveness with the learning disabled, central auditory processing disorders, attention deficit disorders, language disorders and people with sound hypersensitivities.

The DAVIS CENTER, Succasunna, NJ is the only center in the United States to offer the wide variety of sound based therapies. Dr. Berard's AIT therapy is often used as the baseline therapy at The Davis Center because it works on the physiology of the ear—how the ear muscles work together. By retraining the muscles, dealing with the physiology, the ear is better prepared to develop the next skills necessary for auditory processing.

References:

Berard, Guy, MD, "Hearing Equals Behavior",

Berard, Guy, MD, training session class notes, 1993