



## **Listening Services**

At this time OTA offers three different listening therapy programs. We use these programs as an adjunct to our therapy.

### **Integrated Listening Systems (iLs):**

Integrated Listening Systems incorporates many of the theories, principles, and clinical research of Dr. Alfred Tomatis. This program can benefit individuals with challenges in attention, learning, auditory processing, reading, phonemic awareness, sensory processing, and overall energy and alertness.

Integrated Listening Systems (iLs) offers both clinic based and home based programs. Both programs use classical music and Gregorian chants. Some of the techniques used in this method include filtered music. Filtered music allows for certain frequencies to pass through into the music. With certain frequencies isolated, this technique can re-train an individual's auditory spectrum and improve skills such as pitch discrimination and auditory memory. Both the clinic and home program use bone conduction. Many lower frequencies are processed via bone conduction and this type of input also has great effect to our vestibular system. Both the cochlear (hearing center) and the vestibular apparatus (movement and balance) are situated physically close together and encapsulated by bone. Due to their physical and neurological relationship, bone conduction can stimulate both systems resulting in changes in vestibular processing, auditory processing, postural control, ocular control, and overall regulation and focus. Another technique, known as gating, is utilized in both the clinic and home based program. Gating refers to a technique that switches between low and high frequency channels as well as volume changes. By using this technique, the middle ear muscles will relax and contract and in turn improve their function. The middle ear is responsible for our ability to tune in and tune out sound as well as protect our ear from loud sounds.

### **The Listening Program (TLP):**

ABT's Listening Program incorporates many of the theories and principles founded by Dr. Alfred Tomatis. This program can benefit individuals experiencing difficulties in sensory processing, learning, language and communication, attention, auditory processing, and memory.

ABT offers a variety of options for listening. There are support CDs which may be appropriate for clients not yet ready for a full listening program. Support CDs may be used in addition to listening programs as well for added sensory diet support. ABT also offers the Listening Program Level One Kit and the Listening Program Level One Kit Nature Sounds. They also offer some preparatory CDs which are both therapeutic and get the listener ready for a more involved listening. The support CDs, preparatory listening CDs, and the listening kits consist mostly of classical and instrumental music from a variety of composers. Some of listening kits include nature sounds along with the music and some of the support CDs include children's folk songs and lullabies.

ABT uses some specialized techniques to enhance the music for therapeutic purpose. Specifically, these are used in the preparatory CDs and the Listening Kits. Their music is recorded in the highest quality possible. Some of the specialized techniques they use include

filtration, audio bursting, and spatial surround sound. Filtration removes certain frequencies from the music which supports auditory attention and discrimination. Audio bursting makes some subtle volume changes to help support middle ear functioning. Spatial surround sound changes the direction of the instrument and its sound. This enhances spatial awareness, sound localization, auditory figure ground, and left/right brain integration. The tracks on these CDs use what is known as the ABC modular design. Each CD contains 60 minutes of listening which is divided into 4 fifteen minute modules. Each module follows the ABC design in which the first track is the accommodation track (A- warm up), training track (B- workout phase), and the integration track (C-cool down). The ABT program is meant as a home program and requires the use of a Sony portable CD player, specially-recommended headphones, and specialized CDs. Listening is done 5 consecutive days (2 days off) and each listening session can be either 15 or 30 minutes. With the listening kits, there are 10 CDs. If doing a total of 30 minutes for 5 days, one cycle of listening would be 10 weeks and if doing 15 minutes for 5 days, one cycle would be 20 weeks. ABT recommends doing 2 cycles which means doing the kit two times (20-40 weeks total).

### **Therapeutic Listening:**

This program was developed by Sheila Frick, an occupational therapist. The creation of this program has incorporated the ideas and theories of Dr. Alfred Tomatis, Guy Berard, and Ingo Steinbach in conjunction with a sensory integrative frame of reference. As an extension of sensory integration intervention, it supports clients with issues in arousal, regulation, modulation, body and spatial awareness, bilateral coordination, postural control, and attachment and connection. This program may also be appropriate for individuals who have a history of chronic middle ear infections.

Music for this program covers a broad range of genres. It offers classical music, children's music, pop music, nature sounds, jazz, instrumental, and vocal. Therapeutic listening uses what is called *modulated music*. This technique refers to recording music with the use of specialized filters. These filters allow specifically targeted frequencies to pass through. For example, a high pass filter would allow higher pitch sounds to pass. The music then switches between high and low filtered music creating what sounds like subtle volume changes. If an individual is unable to tolerate this modulated music there are other support CDs that can be played over an open stereo or headphones. These types of CDs may also be beneficial for sensory diet support.

Equipment needed is a portable CD player, recommended headphones, and specialized CDs. This program can be used both in the clinic during an OT session as well as home. Listening should be done two times per day for 30 minutes. Listening takes place 7 days a week. Typically, each CD is done for 2 weeks. It is also advised to participate in sensory motor activities while listening.

The client's goals, will determine the number of CDs utilized. On average, a therapeutic listening program is 10-12 weeks. Some clients benefit from additional listening periodically after this time, as a part of a sensory diet and some benefit from participating in a fine tuning program for more refinement of skill.

### **Resources:**

#### **Integrated Listening Systems (iLs):**

[www.integratedlistening.com](http://www.integratedlistening.com)

Developer: Dr. Ron Minson, Kate Minson, and Randall Redfield

#### **The Listening Program:**

[www.advancedbrain.com](http://www.advancedbrain.com)

Developer: Advanced Brain Technologies (ABT).

#### **Therapeutic Listening:**

[www.vitallinks.net](http://www.vitallinks.net)

Developer: Shelia Frick