

Uncover
AUTISM
by Diana F. Camson


THE
LISTENING PROGRAM
by ADVANCED BRAIN TECHNOLOGIES

Building
Brain

CONNECTIONS
by Diana F. Camson





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My mission is to enhance the health, learning, cognitive function and productivity of those who are seeking to make learning easier

I have found, over the years, that the incidence of processing disorders is increasing. Auditory processing or physical challenges with ear structure affect us in many ways. The Listening Program (TLP) is cutting edge technology to help the brain/ear connection.

Improving Brain Connectivity and our Neural Networks is Vital

If a child or adult cannot read, doing more reading is not going to fix the problem until the connections needed are made at brain level, clearing the learning pathways and allowing permanent learning to occur.

If a child is having problems with speech, while speech pathology is necessary, using this alone will not be as effective as working to change the neural networks within the brain which then opens the necessary learning pathways. The two therapies together open the floodgates for learning, allowing information to be effectively held within the brain and the body to master how to process the sound.

- It's through listening that we find a connection to learning
- It's through listening that we find a connection to communication
- It's through communication that we find a connection to life
- Improve your listening. Improve your life.



TLP is a non-invasive Music-Based Auditory Stimulation method that is an effective approach for enabling individuals with a broad range of challenges and abilities to achieve more.

TLP's clinically-proven approach gently trains the auditory system to accurately process sound.

Poor Processing of Sound Affects Everything!

When auditory perception is distorted - whether through illness, injury, developmental or other challenges - auditory processing challenges can lead to academic, emotional, cognitive, sensory and social challenges including (but not limited to):



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|-------------------------------|---|
| • attention and concentration | • physical balance and coordination |
| • listening | • vocal performance and musical ability |
| • speech and language | • sensory integration |
| • memory | • reading and comprehension |
| • communication | • low muscle tone |
| • social skills | • spatial awareness |
| • anxiety | • depression |

Whether you are interested in expanding your own abilities or helping someone you care about, TLP can make a significant difference.





How The Listening Program Works

Numerous studies worldwide, including research at the University of Sheffield, provide empirical evidence that substantiate TLP's efficacy.

The Ear-Brain Connection

In oversimplified terms, the ear has 3 parts: the outer, middle and inner ear. Sound travels as "vibratory energy" through these 3 parts as information relays to the brain.

To break it down further, sound is received by the external portion of the ear and passes through the auditory canal to the eardrum. The eardrum then vibrates, passing the vibration through the middle ear bones to the inner ear.

The inner ear then converts the vibratory energy into electrochemical messages that are carried along the auditory pathways to the brain. Once there, the brain perceives and interprets the messages.

We have 12 essential auditory skills. If one or many are not processing correctly, we can end up with the challenges mentioned before.

Auditory Processing Skills

This process of perceiving sound is complex. In fact, it requires a number of skills that comprise auditory processing:

- Amplitude Perception - To perceive the loudness or intensity of sounds (measured in decibels (dB))
- Frequency Perception - To perform a frequency analysis - the ability to split sounds into frequency bands
- Auditory Attention - To attend, focus, or listen to sound
- Sound Localization - To identify the source of a sound in the environment
- Auditory Discrimination - To distinguish between sounds or that are similar or different
- Auditory Closure - To fill in the missing pieces of sounds or words
- Auditory Anticipation - To expect what sound is coming next
- Auditory Temporal Processing - To analyze the timing and pattern of sounds
- Auditory Memory - To sequence sounds, words or other meaningful combinations
- Auditory Cohesion - To understand the meaning and intention of verbal communication
- Auditory Figure Ground - To perceive speech or other sound when other competing sounds are present
- Auditory Scene Analysis - To separate sounds when a large mixture of sounds is present

What if Auditory Processing is Impaired?

There are many reasons why auditory processing challenges can happen but whatever the cause, this disruption "disorganizes" the information, which diminishes the brain's ability to make sense of the input and respond appropriately.

Are auditory processing problems permanent? With sufficient intervention, no. Neuroscience has proven that brain function can change due to "brain plasticity." However, the brain does not typically respond with significant, permanent change through casual exposure to sensory information.

The brain must be presented with specific sensory stimulation frequently, with the correct intensity and for a sufficient period of time to make permanent change.



Improving Auditory Processing Through Music



So how can we move from a "disorganized" to an "organized" system?

Certain classical music, like that of Mozart, Haydn and Vivaldi, is highly structured, producing sound waves in organized patterns.

TLP's psychoacoustically modified music and patented production treatments are designed to stimulate, or "exercise" distinct functions of the auditory processing system. This enables the brain to better perceive a fuller range of frequencies, organise the information and respond appropriately.



The Power of Music Through Psychoacoustic Treatments

Countless psychoacoustic processes are used in the production of TLP - techniques that enhance and strengthen the attributes inherent within the musical structure to effect change. Here are 2 examples:

- **Auditory Figure Ground** - To exercise this skill, which is the ability to focus on a teacher in the classroom while other noise is present, TLP alternates the volume of different instrumental voices. For eg, in a portion of music the volume might be subtly raised on the obie, then reduced on the obue while it is raised o the violin. By switching the listener's attention in and out of the different istrumental voices and between background and foreground sound, TLP is training the auditory processing system and brain to better "tune in" and "tune out."
- **Sound Localization** - This refers to the ability to identify the source of a sound in the environment., needed for spatial relations, sports and safety, TLP enhances this skill through "spatial dynamics." By moving the position of different instruments during post-production, it sounds to the listener as if the instruments are moving forward, backward or side-to-side during a particular segment of music. This activitely engages the listener, requiring the brain to perceive the position of the sound in time and space.

The Listening Program

Retraining the Brain Through Music





Specific Frequencies for Specific Functions

TLP has 4 treatment categories based on decades of clinical research in the fields of neurology, physiology, psychoacoustics, auditory processing, music theory and more.

Zone One

**Zone One –
Sensory Integration
(lower frequency sounds)
0 – 750/1,500Hz**

SELF REGULATION | BODY AWARENESS | COORDINATION & TIMING

<ul style="list-style-type: none"> • Relaxation • Stress Reduction • Balance • Rhythm • Coordination • Muscle Tone • Body awareness 	<ul style="list-style-type: none"> • Sense of Direction • Laterality • R/L Discrimination • Less Hyperactivity • Shorter Tantrums/Meltdowns • Fewer Tantrums/Meltdowns • Better Sleep
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The 4 treatment categories are:

- **Full Spectrum** - provides a kind of overall "organizing" experience
- **Sensory Integration** - targets lower frequencies to stimulate functions such as balance, coordination, motor skills and more
- **Speech and Language** - emphasizes the mid to higher frequencies to stimulate the brain's abilities for memory, attention, vocal control and more
- **High Spectrum** - focuses on the higher frequencies that impact creativity, intuition, energy and more

Zone Two

**Zone Two –
Speech & Language
(mid & higher frequency sounds)
750/1,500 – 4,000Hz**

COGNITION | ORGANIZATION | SPEECH & LANGUAGE

<ul style="list-style-type: none"> • Memory • Concentration • Attention/Focus • Speech • Language • Vocal Control • Affection 	<ul style="list-style-type: none"> • Learning/Thinking • Communication • Better recognition of facial expressions • Better Pronunciation of words • Bonding, Relating to others • Social Awareness
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TLP's Modular Design

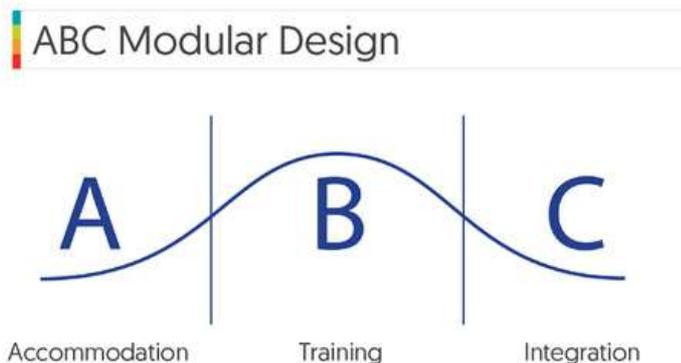
The patented modular design takes the program a step farther, enabling listeners to exercise the auditory processing system, providing "warm-up", "Workout" and "cool-down" phases.

In the same way you would need to train in order to change muscle strength, TLP follows a similar pattern within 15-minute modules.

Module A: Relaxes and prepares the auditory processing system for the more intensive stimulation

Module B: The most modified segment providing an intense workout in targeted and specific ways to change specific functions

Module C: Returns the listener to a relaxed state by integrating back to full spectrum sound.



All This Can Be Done at Home



After an initial client intake, an appropriate, personalized program will be determined for you/your child. Depending on the age of the child, and the degree of challenge, this could range from 5 minutes once a day, building as necessary to a maximum of 15 minutes twice a day.

Examples of listening schedules might be:

2 years old - 5 mins twice a day to begin (5 days a week)

3+ year olds - 15 mins twice a day 5 days a week

Your program will be determined based on your child's challenges, their ability to tolerate headphones, your timeschedule/routines and always in consultation with you.

Programs are written for 6 weeks at a time, to allow adjusting and tailoring to meet the changing needs of the listener.

The great thing about it, is once you purchase the program to use at home, programs can be written for anyone in the family.

“Even though I purchased TLP for my child, I know for me as a mother, I just cope better with the stresses of every day when I am doing my listening than when I don't.”

What Now?

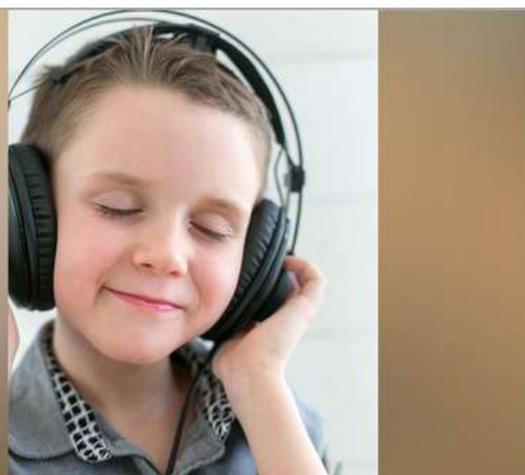
To proceed, please send Diana an email at diana@buildingbrainconnections.com and let her know you would like to proceed with (or know more about) the process.

You can read more about TLP by visiting www.buldingbrainconnections.com

All appointments and treatment plans will be done personally by Diana so you have the benefit of her 30+ years of knowledge of child development and 20 years of working as a certified practitioner of TLP.

All appointments and testing are done using Zoom and feedback is given through a specialized parent portal.

A Developmental
Approach to
Reducing Impulsivity
with Music



Frequently Asked Questions

Q. What is auditory processing?

A. Auditory processing is the term used to describe what happens when your brain recognizes and interprets the sounds around you. Humans hear when energy that we recognize as sound travels through the ear and is changed into electrical information that can be interpreted by the brain.

Q. Who can benefit from The Listening Program?

A. Anyone can benefit from improved listening ability. The Listening Program can be used by people of all ages, starting as young as age two.

Empirical evidence has demonstrated benefits for: The typically developing child Individuals experiencing listening, sensory, learning, language, reading, attention, memory, social, communication, and auditory processing difficulties Those interested in improved communication and speaking skills, musical ability, learning potential, relaxation, and creativity



Q. How long does it take to complete The Listening Program?

A. Listening sessions are typically fifteen minutes in length, done once or twice a day, five days a week. The program length varies depending on the listener's goals. The minimum time recommended is forty hours over the course of 20 to 40 weeks. Many people find it advantageous to repeat the program periodically and to move on to other products provided by ABT and use TLP Specialized CDs for further benefits.

Q. How quickly can we expect results?

A. It depends on the individual's goals for listening and what else is being done along with TLP to accomplish the goals. The brain needs a certain amount of repeated stimulation in order to remember new information and integrate it for functional use. Some people see change within a few days, others after completion of forty hours of listening. There is no way to know in advance the exact amount of time it will take.

Q. Can a successful outcome be predicted?

A. It is not possible to predict with certainty that listening training will be successful in achieving specific goals. When Listening Schedules are followed with consistency best results will be achieved. Often results are seen in areas that were not initially identified for change.

Q. Will the results fade over time?

A. Research on the use of TLP with auditory processing issues has shown that results continue to occur for up to one year after completion of the program, then plateau, with the most measurable results occurring 2-9 months after completion. We recommend you complete at least forty hours and continue some level of continued listening. Your provider will tailor make a program for you depending on your situation and will give guidance according to your needs.

The Listening Program is very much like a physical exercise program. You need to do it on a regular basis, put some real effort into it, and keep at it. You may be fit for a time after an exercise program, but you won't stay that way if you stop exercising or lead an unhealthy lifestyle. If the listener is healthy and does not do things to adversely impact his health the changes that result from TLP will last. Others may need to do 1 cycle of listening once or twice a year to maintain benefits.



Frequently Asked Questions



Q. What other music can I listen to while participating in TLP?

A. While going through TLP we encourage listeners to practice discretion in their listening choices. Select good, acoustic music that feels beneficial, such as Sound Health® or Music for Babies™ from ABT Music. Listen at moderate volumes through speakers or headphones. During TLP you may also listen to audio books-on-tape, stories, spoken word, etc.

Q. Can The Listening Program be used by people with hearing aides or cochlear implants?

A. Yes, contact your TLP Provider for information on how to use TLP in these situations.

Q. Are there any side effects?

A. The Listening Program is a safe, non-invasive method of music-based auditory stimulation. TLP's patent pending modular design supports auditory stimulation. TLP's patent pending modular design supports listeners as they gradually progress through increasing levels of stimulation. Tens of thousands of listeners have safely used TLP. Some people may experience undesired changes for a brief period of time, ranging from a few minutes to a few days. These changes can be viewed in two categories:

1. Behavior or emotional regulation. These types of changes are generally an indication of a transition during the time it takes the brain to learn a new pattern and to reorganize. These changes are often accompanied by positive changes in auditory processing, communication abilities and other areas. Those experiencing these changes should continue listening until the changes resolve. If the changes are too disruptive, modifications can be made to the Listening Schedule.

2. Physiological function. These changes may be experienced during or immediately following a Listening Session and can include a sense of feeling "off", nausea, headache, or dizziness. If these persist, listeners are encouraged to consult a health professional to ensure there is not an underlying health issue causing the changes. Some of these changes can also indicate an area of weakness in the body that may need attention. If there is ever a question regarding changes experienced with listening consult with your TLP Provider.

Q. Can The Listening Program be used if someone has epilepsy or seizure activity?

A. TLP is used safely by people who have seizure disorders if the seizures are stabilized. However, do tell your Provider if you have any such condition. Do not use TLP if you are starting a new medication or adjustment in dosage. Consult with a medical professional first.

Q. How is TLP different from other auditory stimulation programs?

A. Some auditory stimulation programs require travel to a facility for Listening Sessions. TLP is a non-invasive, portable, music-based auditory stimulation program that can be used in the home, school, clinic, hospital, office, etc... A multi-disciplinary team of professionals with decades of experience work together in TLP development. TLP has a patent pending modular design with the A, B, C format and specific Listening Schedules that can be individualized as needed. Only TLP contains high quality music selected, arranged and recorded by ABT Music with the Arcangelos Chamber Ensemble specifically for the program. Most other programs use filtration and/or gating technologies only. ABT has pioneered many new sonic treatments and technologies, including Spatial Surround™ (patent pending) and Spatial Surround™ Dynamic, audio bursting, filtration blending, and many others. Programs are field tested with clinical professionals before their release. TLP is very affordable and can be used time and time again.

