



How Music Listening Therapy Helps People with Down Syndrome

Music for Your Brain

Caring for a person with Down Syndrome is rewarding and requires attention to various ways to support their development for learning, communication, physical, and emotional needs. The Listening Program has been a trusted approach by professionals and families since 1999 to help promote growth in each area. As an option that is accessible at home, people across the globe are seeing the benefits of TLP as a natural way to support anyone with Down Syndrome.

"M," for example, a 7-year old girl with Down syndrome, is one of many listeners who have experienced profound benefits from TLP. After being introduced to the program through a therapist, she began using it daily in her home. Her progress was formally presented at the World Down Syndrome Congress in 2004.

Before starting TLP, her parents and therapists noted that "M":

- Was quiet
- Had poor muscle tone
- Was easily frustrated
- Had a short attention span
- Didn't respond to verbal requests
- Showed signs of tactile defensiveness

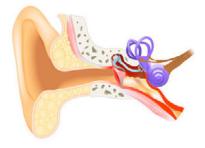
After 16 weeks of listening to TLP for 15 minutes daily, her parents and therapists noted the following changes:

- Improved complexity of play, planning abilities, building associations, memory recall
- Improved learning profile with less visual support and prompting
- Better postural control, allowing for longer learning/attention periods

- Improved listening, communication, motor planning, sequencing, and bilateral integration
- Noticeable changes in fine motor and writing skills, making learning more enjoyable for her

The improvements were seen in "M" mirror those experienced by thousands of listeners with Down Syndrome. These results are all experienced because of the gentle, consistent brain training with scientifically designed music that progressively trains the brain for improved functional outcomes. Using TLP can significantly increase the effectiveness of treatment programs when used simultaneously.

Speech and Language Development



A typical delay for people with Down syndrome is speech and language skills. Often, this is due to poor auditory processing abilities. "People with Down Syndrome historically have a high incidence of both speech and language problems due to narrow Eustachian tubes, which makes it difficult for middle ear fluid to drain. This, combined with low muscle tone, leads to frequent ear infections, which often go undetected. As this affects the quality of auditory input the brain receives during early development, the auditory processing system develops atypically."

Editor's note





The atypically developing auditory system can delay language development and speech difficulties. As Dr. Alfred Tomatis once said, "The voice can only produce what the ear can hear." By improving the auditory processing system, people can see significant improvements in their speech and language skills.

The intentional design of The Listening Program does precisely that since the brain processes the elements of music and language similarly. The use of the fundamental aspects of sound and music, such as frequency, volume, time, and space, presented at the right frequency, intensity, and duration can be of benefit in helping to foster and improve one's overall speech and language abilities.

Carefully selected instruments and neuroacoustic technologies influence specific auditory functions to help someone with Down Syndrome focus, think and learn by supporting the brain to receive better, process, and store verbal information. With improved auditory processing skills, they can attune to their environment and other people.

The unique design of TLP leads to a gentle but effective way to promote the growth seen in people such as those involved in the following study in Dublin, Ireland:

Study to Evaluate the Efficacy of The Listening Program for Improvement of Auditory Skills and Speech for Children With Down Syndrome.

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The children in the study have shown improvements from the use of TLP. They have clearer speech, more extensive vocabulary, and greater utterances. In the school setting, the child's improved auditory discrimination has risen to a greater attention span, resulting in improved communication.

- Gwyneth Jeyes

This study included nine children with Down Syndrome who used The Listening Program. The goal was to measure the impact listening therapy has on speech and language skills. Before and after the ten weeks, the children were given tests and questionnaires to measure speech clarity and comprehension, along with communication and attention skills.

Nearly every aspect tested in speech and language was improved by a considerable amount by the end of the ten weeks. The parents also reported that their children were better at listening and speaking with better comprehension and flow. (Read the complete study here)

One family noted, "Grandpa came last weekend. He last saw our daughter just as she started The Listening Program. He was overjoyed! This was the first time he had understood what his granddaughter was saying to him."

After hearing of these results and examining other studies showing the impact of TLP, a researcher from England, whose article appeared in the British magazine, Speech & Language Therapy in Practice, said:

"The results were beyond my expectations. All study participants showed an improvement greater than one would expect from maturation."

She went on to say, "The pattern of change was interesting – within three weeks, attention improved, all reported greater responsiveness to the conversation – one child who previously did not initiate conversation even became a chatterbox!"

As was noted in each case mentioned here, by improving the auditory processing abilities first, TLP lays the foundation for developing higher executive functioning, emotional regulation, and speech and language development for people with Down syndrome.





Motor Development

Developing fine and gross motor skills often takes more time and intentional therapy for people with Down syndrome due to common traits of ligament laxity and hypotonia (less muscle tone, more flexibility in joints).

Motor development originates in the brain. Because of that, it is an area in that TLP has positively impacted various people. An article published in the Occupational Therapy International Journal reviewed existing research examining the effects of The Listening Program (TLP) on multiple functions in children. This quantitative research article includes nine studies with proper pre-treatment and post-treatment assessment and data to evaluate outcomes for children with Down syndrome, among other disabilities.

With each finding, TLP was demonstrated to positively affect numerous areas, including sensory processing, motor, visual and neurological abilities, educational-based skills, language, and communication. "Of the studies investigated, all found positive effects of TLP intervention in different areas for different subject groups." Read the complete study here.

The unique design of TLP, which targets the areas of the brain responsible for motor control, gently strengthens the neural connections, leading to improved fine and gross motor skills.

Self Regulation

The beautiful music experienced in each 15-minute session provides a calming influence to regulate the nervous system allowing higher-level skills to flourish in meaningful ways.

Self-regulation is a skill many people struggle to develop. When other delays, particularly speech and language delays, are present, self-regulation skills are even more challenging to obtain.

This was the case for "SC," a 17-year-old with Down Syndrome. Parents and therapists all reported selfregulation skills, among many others, to be a common concern for her. As early as three years of age, SC started hitting her peers at school. Aggressive outbursts were familiar with SC as she spent much of her time feeling anxious, dysregulated, and unable to communicate those frustrations with those around her.

During a documented therapy session, SC "appeared highly anxious (i.e., keeping her head down, looking away from the therapist, disengaging in tasks) and spoke very little. When she did speak, her spoken output was very quiet and less than 40% intelligible to a therapist in a known context."

Her therapists and family decided to document her progress while combining therapy with TLP in a case study. Many improvements were reported and measured during the time of TLP and therapy. Once such was her self-regulation skills. Read the full case study here.



SC, at age 17, has made so many profound improvements with TLP! We are enjoying her improved nonverbal and verbal communication. Hence, she is more motivated to participate in group activities, Her aggression



has diminished significantly, and now she is more independent with daily living skills, requiring less prompting. We have observed a drastic improvement in clarity of thinking in every environment.

Related Case Studies:

SC – 17-year-old with Down Syndrome, Anxiety, SPD, and more

Related Articles:

How TLP Improves Auditory Processing
The Power of Music in Improving Speech and Language Delays

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