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There are many sound therapies available in the US today and all of them claim to have found their base in the founder and originator of Sound Therapy, Dr. A. Tomatis. It is important to know from the outset that the Tomatis® Method is **the only program** available in the US that provides the full extend of the Tomatis® effect and contains the three laws for which Dr. Tomatis has received many rewards and acclamations. Many programs claim to be Tomatis® based, which honors this great man for the profound effect that he had in his life on children and adults during his lifetime and beyond.

Dr. A. Tomatis

He was a doctor of medicine (Ear, nose, and throat physician) and a specialist in problems with hearing and language. Dr. Tomatis founded, and was the president of, the field of Audio – Psycho-Phonology at the School of Anthropology in Paris. Amongst many awards, he was awarded distinctively by the Paris Academy of Sciences and the Paris Academy of Medicine for creating the “**Tomatis® Effect**”, which was to be expressed by 3 laws:



1. The voice only contains what the ear can hear
2. If the hearing is modified, the voice is immediately and unconsciously modified.
3. It is possible to durably transform phonation when auditive stimulation is maintained over a certain time (the law of duration or permanence)

Besides these three laws, which are integral for permanent change, the Tomatis® Method **includes the normal physical, sensory, and physiological development** of a person and also stimulates, with integration, several cranial nerve pathways in the brain.

The Concept of Listening

There are 3 functions to the ear:

1. The function of **balance** – The vestibule is a part of the inner ear which informs the brain of the slightest body movement, it intervenes therefore in the control of posture and the maintenance of balance – our vestibular system.
2. The function of Revitalization or **Cortical Charge** – The ear is very necessary in causing the cortex to be charged and therefore needs to be stimulated.
3. The function of **hearing** – When this function is disrupted, difficulties in analysis, accommodation, spatialization or auditive lateralization are caused. The person experiences an influx of information, but perceives it in a distorted manner affecting comprehension, as well as impacting verbal expression. The person becomes fatigued, irritable and finally withdraws.

When we intervene using this method, we also work with the person in a one-on-one format through an extensive occupational therapy and physical therapy program. The person is actively participating in activities that would enhance sensory processing in general through all systems. As Occupational Therapists/ Physical Therapists, we are interested in how this particular sense interacts with other senses we traditionally have worked with and the outcomes of the combination program have created many satisfied families over shorter spaces of time rather than doing traditional therapies alone. ([See Testimonial Section](#))

Listening is not hearing. Hearing is the ability to discriminate different frequency ranges as they are tested by audiologists. In Tomatis® Training we do not work with hearing. Most of the time persons would return from a visit to an audiologist with a perfect hearing score. **Listening is the ability to use one's hearing intentionally and attentively, and in a way that is acceptable on an emotional level, for the purpose of learning and communicating.** It is a high level cortical function. Listening can be affected by developmental delays (too frequent occurrences of ear infection in early formative years being one red flag), auditory processing and communicative disorders, and emotional disturbances as well.

See our [Listening Checklist](#) to see if you or your loved one would be considered to have a listening difficulty that could be assisted by Tomatis training.

The Tomatis Method

- We use an electronic system called the **Electronic Ear** or EE. Over the many years of program development, starting out with tapes of music, the EE has developed into a modern machine with digitalized music and computerized features. At our center we use the latest version the Tomatis® AudioPro and we

also have 3 mini ears that we use in intensive programming as well. The EE is a system which exploits and reactivates the strategies involved in perceptive organization and in the management of the sound environment which the brain is normally able to use when listening is not disturbed.

- A piece of huge importance to the EE is the **gating mechanism** between two sound channels. This is based on the sound change between two channels on a double process of perceptive contrast (timbre / intensity). Our brain works in such a way that our selective attention, which allows us to select a sound signal among all the possible ones so that it can be treated, is triggered if two conditions are brought together:
 - The new or unpredictable character of the sound signal
 - An increase in the intensity of this message

The gating mechanism of the EE triggers both conditions and this specific mechanism is very unique to the Tomatis® method and not replicated in any other product. The certified Tomatis® Consultant is able to specifically adapt each client's program by changing the gating taking place on each CD processed through the EE.

- Another important parameter to the Tomatis® Method is to achieve listening through **air and bone conduction**. As humans, we always hear and listen through both bone and air conduction. We listen optimally when these two systems are well balanced, which is one of the primary goals of the Tomatis® Method. When travelling through **air conduction**, the sound message arrives at the tympanic membrane through the airwaves, and the membrane's vibration connects this with the tiny middle ear bones (an air cavity), then through the oval window to the sensorial cells in the Organ of Corti. From here the sound is processed through the vestibule-cochlear nerve to the brain. If the sound is travelling via **bone conduction**, the message is transmitted via the head bone through a vibrator, located in the frame of the headphone and rests on the middle of top of the person's head, carrying the sound directly to the inner ear. This feature of bone conduction and being processed through the EE is very unique to the Tomatis® Method and should not be confused by bone conduction being used without a processor such as the EE.
- **Delay and Precession** are other parameters used by the Tomatis® Method and also quite unique to the Tomatis® Method with no other product using this intricate process in today's proliferation of sound therapies. Both actions contribute to the reeducation of the ear to improve its ability to attend and comprehend what it is listening to, which is the overall target of the Tomatis® Method. They work as time delays through the gating system as discussed above and assists in slowing down, modifying the time span of sound being gated through the channels. The Certified Tomatis® consultant is able to set these parameters for each individual client as per each CD listened to.

- The **Balance** mechanism stimulates the client to use his/her right ear for controlling his/her voice, therefore communicating more effectively. Again the Certified Tomatis® Consultant is able to set this parameter on each CD for each individual client.
- The **Filters** feature of the EE used in the Tomatis® method allows for reeducating the sound perception starting from the earliest form of listening in the mother's womb to the fully advanced listening of a mature adult. Filters are electronic mechanisms in the EE intended to reduce the volume of chosen acoustic frequency ranges. This is the feature mostly attempted to be replicated by other sound therapies, though not with the precision of the original Tomatis® Method and with the full Tomatis® Effect.
- We use the **Mother's voice** and record this at our center to be filtered through the EE at the frequencies that babies listen to while in their mother's womb. Babies can hear sounds from their mother's voice from her voice box through her spinal cord very specifically in the third trimester and is an important feature of emotional bonding between child and parent.
- The Tomatis® Method also utilizes an **Active Phase**, which requires the person to use his / her voice by speaking, reading aloud, or singing through a microphone. The person's voice and music are modified by the EE, and combine to incorporate the attended frequencies into the client's voice, producing better vocal production. This form of active work has not been replicated by any other program as it is processed through the EE with settings set for each individual client by the Certified Tomatis® Consultant.

As we can see, though many base their sound therapies on the foundation work completed by Dr. Tomatis, no other program has been able to utilize the Tomatis Effect to the fullest extent, except for the EE used by Certified Tomatis® Consultants. The program is intricate, the training commitment is a long and expensive process, but the results are worth it.

See [Research on the Tomatis Method](#) for more information.



Our Tomatis® program

Children (age 2 and up) and adults are treated through this program at our center. We operate three sessions daily at our center during the school year (September through May) and 4 sessions daily from June through August. Each session is two hours in length. The person listens to mostly Mozart Music and Gregorian Chants, which is modified in whichever way the Certified Tomatis Consultant plans for each individual client.

Clients attend the program for periods of 3 intensives: 15 consecutive days (except for Sundays), take a 4-week break for consolidation, then 8 consecutive days (no Sundays),

another 4-week break, then a last intensive for 8 days. Clients are typically re-assessed about 2 to 3 months after their last day of intervention to determine the progress made in comparison with their initial assessment.

Initial and Exit Interviews with the families are conducted at the initiation and exit of each intensive burst and Listening tests on the Tomatis® Listening test machine are conducted where applicable before and after each intensive.

The Tomatis® Home Program – Solisten® (SQL)



Many clients are saddened by their inability to access a Tomatis® center close by their home. Since this program requires quite a commitment in time, many clients simply live too far away to attend. Tomatis® Development SA designed a high quality product that would enable more people to train in using the program, but also allow for use at the client's homes. It should be clear that this program is not the full Tomatis® Method, though it does contain the laws of the Tomatis® effect. It would still be a vastly more intricate and individualized program to complete at a center, but still would provide a high quality outcome for many clients. Thinking of the parameters above, we will discuss the essential differences:

- The Solisten® device is a simplified Tomatis® device with pre-recorded music files including the most important features of the Tomatis® device.
- The Solisten® device is providing the Tomatis® Effect, but not the full Tomatis® Method.
- The Gating System is pre-recorded with music and loaded on the Solisten® device.
- Both Air and Bone conduction are available on the Solisten® device
- Both delay and Precession are pre-set on the pre-recorded music loaded on the Solisten® device
- The Solisten® device does not have the Balance feature. Recorded music has been done with 100% of the intensity in both ears.
- Some pre-filtered music has been recorded and loaded on the Solisten® device
- The Solisten® device does not allow for any active work.

Clients are trained at our center to use the Solisten® device at home for 15 consecutive day spurts of two hours each day and the same 4-week break is recommended in-between intensives.

The Tomatis® Home Program – Solisten® (TC)



This home program is only available for use through Certified Tomatis® Consultants, who have had more extensive training in the use of the Method. It enables the Tomatis® Consultant to have the flexibility of utilizing a home program where needed, but with

much more individualization than the SQL program available to other professionals. We will describe the differences between Solisten SQL and Solisten® (TC).

- More options for individualized program planning are available in gating, precession and delay, though not the full spectrum as at the center.
- Air and Bone conduction are the same.
- The Solisten® (TC) does have the ability to use balance.
- More options for individualized programming are available with regards to the use of filters on the Solisten® (TC).
- The Solisten® (TC) does not have an active phase as well.

The same training rigor of 15 consecutive day intensives of 2 hours each day is applied in using this product.

The Tomatis® Program for Parents

Many parents ask to know what their children or loved ones go through when they do the program. Some parents also identify with their children in their own profile and would like to complete the program themselves. We are able to complete a program in a separate room for parents to go through a similar program based on their individual profile at the same time. Since there is no therapy involved outside of the Tomatis stimulation, the fee for such a program is reduced.

We also provide the Solisten® for home based use to either do the program simultaneously or complete the program after the child or loved one's program has been completed.

See [Tomatis Pregnancy Program](#) for more information on this program.

Why Mozart?

Many families ask us this question and we decided to share with the reader some research and thoughts that have been completed on the use of Mozart.

Billie M. Thompson, PhD and Susan R. Andrews Ph.D wrote an article “An Historical Commentary on the Physiological effects of Music: Tomatis, Mozart and Neuropsychology”. This article was published in the “Integrative Physiological and Behavioral Science Journal in the July to September issue of 2000. In this article they define very clearly the difference between the Mozart effect and the Tomatis effect as described by the three laws earlier in this writing. It should not be confused with each other, even though Dr. Tomatis knew from his own and others research that Mozart was the music that really suited his program most ideally. The use of Mozart was confirmed in the research by independent researchers (mentioned below) shortly before and after his death.

J.S. Jenkins wrote an article in April 2001 that was published in the Journal of the Royal Society of Medicine Volume 94. The article was simply titled: “The Mozart Effect”. He writes: “Techniques such as positron emission tomography (PET) and functional magnetic resonance scanning, together with studies on localized brain lesions, have shown that listening to music activates a wide distribution of areas. The primary auditory area lies classically in the transverse and superior temporal gyri, but particular components of musical appreciation involving rhythm, pitch, metre, melody, and timbre are processed in many different areas of the brain.”

“A more impressive indication of a Mozart effect is to be seen in epilepsy. In 23 of 29 patients with focal discharges or bursts of generalized spike and wave complexes, who listened to the Mozart sonata K448, there was a significant decrease in epileptiform activity as shown by the electroencephalogram (EEG). In one male, unconscious with status epilepticus ictal patterns were present 62% of the time, whereas during the exposure to Mozart’s music this value fell to 21%. The fact that these improvements took place even in a comatose demonstrates again that appreciation of the music is not a necessary feature of the Mozart effect.”

“In an attempt to determine the physical characteristics which were responsible for the Mozart effect, Hughes and Fino subjected a wide range of music to computer analysis. As many as 81 selections of Mozart, 67 of J C Bach, 67 of J S Bach, 39 of Chopin, and 148 from 55 other composers were analyzed. The characteristic shown by much of Mozart’s music and shared with the two Bach’s was a high degree of long-term periodicity, especially within the 10-60s range.”

“Another similarity between the music of Mozart and the two Bach’s was the emphasis on the average power of particular notes, notable G3 (196 Hz), C5 (523 Hz) and B5 (987 Hz).

Find below some more recent research on the Tomatis Effect, which provides more information. Researchers are still debating whether the Mozart Effect is what it says, but Dr. Tomatis combined this particular music with his Tomatis effect found in his EE (electronic ear) to provide us with a magnificent tool to use today and that is after almost 60 years still unsurpassed in power.

1. Effects of Musical Tempo and Mode on Arousal, Mood, and Spatial Abilities

This research was completed by Gabriela Husain, William Forde Thompson, and E. Glenn Schellenberg at the University of Toronto and published in the journal of music Perception the winter edition of 2002.

A Mozart Sonata was performed by a skilled pianist and recorded. This recorded file was edited to produce four versions that varied in tempo (fast or slow) and mode (major or minor). Participants listened to a single version and completed measures of spatial ability, arousal, and mood. Performance on the spatial task was superior after listening to music at a fast rate rather than a slow tempo, and when the music was

presented in a major rather than a minor mode. Tempo manipulations affected arousal but not mood, whereas mood manipulations affected mood but not arousal. Changes in arousal and mood paralleled variation on the spatial task. The findings are consistent with the view that the “Mozart effect” is a consequence of changes in arousal and mood.

2. The influence of auditory background stimulation (Mozart’s sonata K. 448) on visual brain activity.

This research was conducted by Norbert Jausovec and Katarina Habe in Slovenia and was published in the International Journal of Psychophysiology 51 in 2004.

Twenty individuals solved a visual oddball task in two response conditions: while listening to the abovementioned Mozart sonata and while listening to nothing. The recorded event-related potentials (ERP) were analyzed in the time and frequency domains. In the music response condition the ERP peak latencies on the left hemisphere increased, whereas on the right hemisphere a decrease of peak latencies as compared with the silence response condition was observed. In the theta, lower-1 alpha and gamma band increases in induced event related coherences were observed while respondents solved the oddball task and listened to music, whereas a decoupling of brain areas in the gamma band was observed in the silence response condition. It is suggested that auditory background stimulation can influence visual brain activity, even if both stimuli are unrelated.

3. The Influence of Mozart’s Sonata K.448 on Brain Activity during the performance of spatial rotation and numerical tasks.

This research was also completed by Norbert Jausovec and Katarina Habe in Slovenia and was published in Brain Topography, Volume 17, Number 4, Summer 2005.

The method of induced even-related desynchronization / synchronization (ERD/ERS) and coherence (ERCoh) was used. The music condition had a beneficial influence on respondent’s performance of spatial rotation tasks, and a slightly negative influence on the performance of numerical tasks as compared with the silent condition. On the psycho physiological level a general effect of Mozart’s music on brain activity in the induced gamma band was observed, accompanied by a more specific effect in the induced lower-2 alpha band which was only present while respondents solved the numerical tasks. It is suggested that listening to Mozart’s music increases the activity of specific brain areas and in that way facilitates the selection and “binding” together of pertinent aspects of sensory stimulus into a perceived whole.

4. The Mozart Effect: An Electroencephalographic Analysis Employing the methods of induced event-Related Desynchronization / Synchronization and Event Related Coherence.

This research was also completed by Norbert Jausovec and Katarina Habe in Slovenia and was published in Brain Topography, Volume 16, Number 2, winter 2003.

The event-related responses of 18 individuals were recorded while they were listening to 3 music clips of 6 s duration which were repeated 30 times each. The music clips differed in the level of their complex structure, induced mood, musical tempo and prominent frequency. They were taken from Mozart's sonata (K. 448) and Brahms Hungarian dance (no.5) and the third was a simplified version of the theme taken from Haydn's symphony (no 94). Significant differences in induced event-related desynchronization between 3 music clips were only observed in the lower-1 alpha band which is related to attentional processes. A similar pattern was observed for the coherence measures. The research suggests that Mozart's music – with no regard to the level of induced mood, musical tempo and complexity – influences the level of arousal. It seems that modulations in the frequency domain of Mozart's sonata have the greatest influence in the reported neurophysiological activity.

Good Books to read:

The Ear and the voice – Dr. Alfred Tomatis
The Ear and language – Dr. Alfred Tomatis
The Conscious Ear – Dr. Alfred Tomatis
Listening for Wellness – Pierre Sollier
When Listening comes alive – Paul Madaule
The Mozart Effect for Children – Don Campbell
Awakening Ashley – Sharon Ruben