When the music switches

Each piece of music and each voice used during therapy is constantly changed by means of special electronically controlled amplifier and filter systems. The neurological effect of this stimulation is reflected in improved listening and a reorganisation of auditory processing.

Tomatis conducted research into the effect of certain frequencies on humans (see the table) and discovered that the nervous system and the brain come to rest with oscillations, but can equally well be stimulated. Depending on the volume, sounds in the machine travel along either Channel 1, the rest or relaxation channel, or Channel 2, the activation or tension channel. In Channel 1 the low frequencies are amplified and the high frequencies are attenuated in quick succession, but without any regularity. Then, from a threshold value of approximately 40 decibels, in Channel 2, exactly the opposite occurs: the high frequencies are amplified and the low frequencies are attenuated. Music with low frequencies affects the entire organism through the balance organ (vestibulum). In the activation channel, listening and paying attention is repeatedly challenged and conditioned by the high-frequency music or mother's voice.

The irregular switching between the two channels acts like a micro-gymnastic exercise on the fine auditory muscles, "musculus tensor tympani" and "musculus stapedius", in the middle ear. They have to adjust quickly to the constantly changing acoustic conditions. Over time, this leads to improved regulation of the tension in the muscles in the middle ear. Only in this way, according to Tomatis, can mid and high frequencies be preferably transmitted and the ideal curve achieved.

It is generally considered that this frequency change also acts on the hair cell activity in the inner ear and therefore improves their activity. In addition to the filter system described above, another filter system gradually filters out the low frequency components, so only the high tones are transmitted. The acoustic situation in the womb can be understood in this way (high filter phase).

Children and adults listen to music through a special headphone, which transmits the sounds through earphones (air conduction) and through a vibrator arranged on the cranial bone (bone conduction).

The equipment we use is the technical implementation of the fundamental insights of Tomatis into hearing, speaking and the relevant psychological components. Individual problems associated with the sensory organ, the ear, can be addressed even more precisely and effectively through a variety of new setting options.

Effects of filtered sounds

> 16 - 1000 HZ	soothens the psyche, stimulating on the motor function
> 1000 - 3000 Hz	stimulating on speech and communication
> 3000 - 8000 Hz	invigorating, vitalising regressive tendencies, attachments, dreams,
> above 8000 Hz	images of uterine symbols