

# Speech Problems & Sound Therapy

## The problem

Unless there is a deformity in the vocal apparatus, most speech difficulties are caused by some interference or distortion in auditory reception. Although the hearing may test as normal the relaying of verbal information to the brain may be impaired. Hearing our own voice is a source of constant feedback while we are speaking and if there is any confusion in the sequence of received sounds, it will cause confusion in the output of speech. The results can be substitutions of one sound for another, stumbling over words or a flat and toneless voice.

Most people use the left hemisphere of the brain as the primary integrating centre for language. Some studies have shown that stutterers process language primarily in the right hemisphere or a mixture of the two. The right hemisphere is less efficient for processing auditory information, so this results in problems in the timing of speech output.

Speech difficulties frequently lead to problems in other areas where language is used, such as reading and writing. The element, which is the basis for all these skills, is the ability to hear and process sound accurately.

## Why Sound Therapy may help

Dr Tomatis made an important discovery about the relatedness of the ear to the voice. He established that the larynx emits only those harmonics that the ear hears.

A lack of tone in the voice indicates a lack of tone in the hearing. Sound Therapy may fine tune the hearing and restore the ability to hear missing frequencies, by exercising the ear muscles and stimulating the receptor cells in the inner ear. It may also correct reversed or mixed laterality, so that the left hemisphere becomes the processing centre for language. Sound Therapy continually plays more sound into the right ear. The right ear connects to the left hemisphere of the brain, so when the right ear becomes dominant, the language function naturally switches to the left hemisphere.

## How to use it

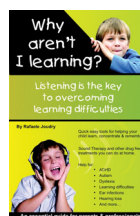
Children with speech difficulties should listen to Sound Therapy every day for 30 to 60 minutes or more if

desired. Regular daily listening is essential for the right ear dominance to be achieved. *The Let's Recite* tape is good to use for children with speech difficulties as it gives them the opportunity to repeat what is said and integrate their speaking with their new experience of listening. Another good exercise for children with any form of speech difficulty is speaking into a microphone while monitoring their voice through the right ear. This can be done using a personal cassette player with a microphone and wearing only the right headphone. The child can speak, sing, read or make any vocal sounds. A similar effect can be achieved without the equipment by simply closing off the right ear with fingers or an ear plug. This increases the volume of the child's own voice in the right ear. This exercise can be done for some time each day in conjunction with the listening.



## Anticipated Results

Dr Tomatis worked with a group of 74 stutterers and discovered that all of them had difficulty hearing from the right ear. When he educated them to use primarily the right ear, all of them began to speak correctly. Children with other types of speech difficulties have responded similarly to the treatment. Not only does their speech improve but their behaviour changes. They became more confident, more dynamic and more eager to talk and communicate. Parents also report improvements in reading and the use of written language.



For more information, please request our free booklet *Listening Helps Learning* or obtain the book *Why Aren't I Learning?* by Rafeale Joudry available from good bookstores or from **Sound Therapy International Pty Ltd.**



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