Dyslexia: What is it?

If you look up the word *dyslexia* in the dictionary, you'll find that it is derived from the Greek word "dys" (meaning poor or inadequate) plus "lexis" (words or language). Perhaps you know someone with dyslexia. If so, you probably know one of the common problems they have is transposing letters or numbers. These problems can occur in listening, writing, reading, spelling or handwriting. In other words, **dyslexic people process language poorly, but that doesn't mean they aren't intelligent.**

Dyslexia is not related to low intelligence. Dyslexia is a unique mind set that is often gifted and productive, but learns differently than other minds. In fact some of the most brilliant minds of our time have been known to have dyslexia: Albert Einstein, Alexander Graham Bell, Thomas Edison, Winston Churchill, Benjamin Franklin, John F. Kennedy, Mozart and John Lennon to mention only a few. There are people with dyslexia in many types of highly respected careers such as: Walt Disney, Tom Cruise, Danny Glover, Cher, Magic Johnson, Carl Lewis, Bruce Jenner and General George Patton. **Most dyslexics often have a better sense of spatial relationships or better use of their right brain.**

Analyzing the Sounds

How it affects each person varies significantly. Dyslexia somehow manifests itself differently from individual to individual. However, the only common factor seems to be that **they read at levels significantly lower** than typical people of a similar age and intelligence.

Reading, whether silent or aloud, has to do with processing sound. Sound is a very complex mixture of frequencies with varying intensities. Analyzing it so quickly and accurately is exceedingly difficult. Even the most sophisticated computers still have trouble analyzing sound fully. That is why many *voice recognition systems* are still imperfect. We analyze sounds in the inner ear, more specifically in the cochlea. **If the cochlea is not analyzing sounds accurately, dyslexia can occur.**

Each sound has a base frequency and some higher frequencies (or higher harmonics). When some sounds have nearly the same frequency, differing only in the higher harmonics, a person with dyslexia might misinterpret them. For example a "B" and "P" have similar base frequencies. Likewise, a "T" and a "D" do also. When someone says to them "Bob", they are not sure what was said. It could be "Bob" or "Bop" or "Pop." By the time they have figured out what was said, the speaker is already into his next sentence or maybe more. Consequently, the person with dyslexia tends to process language at a slower rate. **They just have an auditory processing problem.**

To address this problem we'll retrain your ears, to hear and process these differences much better. We do this by having you listen to gated music, using specific high frequency bands. This makes that gradually you will be able to distinguish between the higher harmonics. So, you will no longer be guessing whether some one said Bob or Pop! **Once you can hear the sounds clearly, you'll also start improving your spelling.**

Ear / Eye Coordination

Reading is a complex act that requires the ears and eyes to work together synchronously. As the eyes see a letter, the ears identify the corresponding sound even when reading silently. Then, the vestibule leads the eye from letter to letter and the cochlea translates each letter into a sound. Ideally, both operations should happen almost simultaneously. The trouble starts when the delay is too long. **So, if the vestibule and cochlea are not in sync, the eyes and ears are not in sync either.**

To make things more complicated, each sound lasts a specific time. The ear constantly has to adjust to these rapid changes. When it does not, the eyes and ears are no longer in synch. The right sound is not put together with the right letter. Without the sound, the letter remains dead. The meaning

cannot emerge. **The dyslexic is left second-guessing**, hoping for a miracle taking the chance to utter finally a sound that might fit the letter of the alphabet dancing on the page.

To impact the functioning of the vestibule, we'll have you listen to low frequency gated music. The effects are usually very rapid and very visible. People quickly improve their motor skills and posture. They often start to do better in sports, improving their self-esteem. **Then, gradually, you'll start to read with more pleasure, and further improve your spelling.**

The Lucky Ear

To the surprise of many, we each have a dominant ear. Some are right-ear dominant. Others are left-ear dominant. The advantage in being right-ear dominant is that the right ear processes the incoming auditory information faster than the left ear. **Therefore, people who are right ear dominant learn and think faster, and speak better.**

People who are right ear dominant are more likely to pay attention because they can process information faster. The right ear has that advantage because it sends the information directly to the left brain, which specializes in processing language. When a person is left-ear dominant, the information is perceived by the right brain. That part of the brain has no language center and, therefore, the information has to be rerouted to the left brain via the Corpus Callosum. Because that's a longer pathway, the information is delayed. **Left-ear-dominant people thus have to play catch-up all the time.** Not only is the information late, it is also incomplete. In the transfer from the right brain to the left brain, some of the higher frequencies are lost. As we have seen before, these are the frequencies that are "the key" to distinguish similar sounds (like a B and a P). **Left-ear-dominant people thus not only have to play catch-up, they also have to play with an incomplete deck.**

The Tomatis Listening Program helps people with dyslexia achieve better right-ear dominance. Towards the end of the program, we'll gradually shift the sounds from the left ear to the right ear. You'll also do some reading exercises through a microphone coupled with our electronic equipment. We'll filter your voice and return it exclusively to your right ear. In this way, you will be able to easily check the quality of your voice and language. You will be more in control of what you read or say.

This is very important, since self-listening skills are often poor in dyslexic people. **Over time, you'll become right ear dominant, and read, learn and speak better.**

Our clinical experience shows that most dyslexics will be able to read, write and learn better, just by tuning up their ears.

Many will also improve their verbal skills and gain in self-esteem.