The SpeechEasy device integrates a new chip technology, which helps stutterers speak more easily and fluently

• Stefan Paulsen

Abstract
SpeechEasy is a fully portable and inconspicuous fluency-enhancing device for people who stutter. It is a prosthetic device that fits in or behind the ear. The underlying technology is based on more than 10 years of peer reviewed scientific research and utilizes the fluency-enhancing effects of Altered Auditory Feedback (AAF). When someone experiences AAF, he or she hears his or her own voice in a manner that is altered from its normal state. The SpeechEasy devices employ a combination of two forms of AAF: Delayed Auditory Feedback (DAF) and Frequency Altered Feedback (FAF). DAF allows the user to hear his own voice with a slight shift in pitch (higher or lower).

For reasons that are still not completely understood, it has long been observed that people who stutter become more fluent when they speak in unison with other people. This phenomenon, known as the “choral effect”, can be seen with a person who stutters becomes more fluent while singing in a choir or reciting the Pledge of Allegiance within a crowd.

The SpeechEasy device is a synthesis of miniaturized hardware, cutting-edge digital technology and advanced algorithms that provide users with customized, fluency-enhancing DAF and FAF. SpeechEasy uses DAF and FAF to emulate such “choral speech” by allowing the user to hear his own voice with a shift in pitch and slight time delay. This creates the sensation of speaking in unison with other person, thus affording the fluency benefits of choral speech.

Research affirming the efficacy of this approach has been published in numerous peer reviewed scientific journals. While researchers have recognized the fluency enhancing effects of DAF and FAF for some time, they have only recently been able to transfer the technology from the laboratory to a viable treatment option.

Recent technology advancements have enabled the development of the SpeechEasy device which can now be used by individuals on a daily basis. This circumstance has for stutterers a tremendous meaning: They are released from the intolerable plight of feeling taunted and segregated.

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