

Biofeedback for Epilepsy

Neurofeedback was discovered as a treatment for epilepsy in the late 1960s by Barry Sterman, a UCLA physiological psychologist. He was asked to determine why fighter pilots sometimes experienced seizures while flying their planes, and discovered that it was a chemical in the jet fuel (hydrazine) which triggered the seizures. While working on this project, he tried to induce seizures in some cats he had in his lab; some cats experienced seizures but others did not. He learned that the cats who did not experience seizures (when they should have) were ones which had been trained previously to increase certain brain waves in previous experiments. Sterman concluded that the place and frequency he had trained the cats (12-15hz at C4) seemed to be protective of seizures. His continued work led to eventually working with people, helping many to eliminate seizures in their life. The scientific details, theory and references of this work can be found in other sources (Sterman, 2000; Egner & Sterman, 2006; Thompson & Thompson, 2003). Neurofeedback continues to be a viable method of treatment for epilepsy (Yucha & Montgomery, 2008; Monastra, 2003).

I am sometimes asked if there is research supporting the use of neurofeedback for epilepsy. Below are some references. If you can add to this list or have corrections, please e mail me at nurosvcs@aol.com. - Dr. Thomas.

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