

Neurofeedback: A Non-Medication Treatment for ADHD

Based on more than twenty-five years of research, neurofeedback is rapidly becoming more accepted as an effective treatment option for ADHD. It makes use of modern computer technology and discoveries in neuroscience and enables the ADHD child or adult to learn how to regulate their impulses and focus their attention.

It is especially suitable for children whose parents don't want to give their child stimulant medications and for individuals who have tried stimulant medication and experienced adverse side effects. It is also helpful for teenagers who have become resistant to taking medication.

How Does It Work?

Early in the 20th century, researchers identified 4 basic brain wave patterns in people. The first two types, delta and theta waves, occur when a person is sleeping or in a drowsy state. The other two types, alpha and beta waves, occur when a person is awake, calm, and focused.

Later, in the 1980's, researchers found that individuals with ADD and ADHD tend to have more slow wave activity (theta waves) and relatively less fast wave activity (beta waves). They also found that persons with ADHD could learn how to control their brain wave activity and show corresponding gains in concentrations and self-control in the classroom.

During neurofeedback sessions, sensors placed

on the scalp pick up electrical activity in important centers in the brain. This activity is transmitted to a computer which transforms the data into video and audio displays. By looking at the screen and listening to tones, the individual receives feedback regarding his brain wave activity. Over a period of time, he learns what it feels like when he is concentrating and when he is "drifting off". With practice, often in a game format, the individual learns how to control his "driftiness" and sharpen his concentration.

After several training sessions most individuals learn to control their ADHD symptoms. They maintain and shift focus more easily and become less distractible and less impulsive. Many begin to show gains in other areas such as reading, writing, sleep, and social skills. Almost all persons coping with ADD/ADHD symptoms can benefit from neurofeedback.

Neurofeedback offered by Dr. Quesenbery

Dr. Quesenbery utilizes training protocols for ADD and ADHD developed by Dr. Joel Lubar at the University of Tennessee and published in Evans' & Abarbanel's 1999 book, Introduction to Quantitative EEG and Neurofeedback. After an initial assessment and setting of training parameters, clients come to sessions twice weekly for about 15 to 20 weeks. Each session includes five conditions: a two minute baseline period followed by four, 4 to 8 minute feedback conditions with reading and listening tasks interwoven. When gains begin to be seen within and outside the clinic, sessions are reduced to once weekly, and then suspended. Booster sessions are used, if needed, to help those persons whose concentration skills weaken and performance declines.

Frequently Asked Questions About Neurofeedback

1. How much do the sessions cost? Sessions which last 30 to 45 minutes are \$60 per session.

2. How many sessions are needed? The number of sessions needed to reach treatment goals varies from person to person, just as it does in any kind of learning activity such as learning to play golf or tennis. Clinicians working with ADHD persons have found that, on average, 30 to 40 sessions are needed.

3. Are session costs covered by health insurance? Some companies cover the costs, and some do not. The CPT codes used in billing are 90801 and 90876.

4. Does it hurt? No, neurofeedback is painless. It involves the use of water soluble paste to secure a few small sensors to the person's scalp. These sensors are then attached to small wires leading into the computer's recording and display devices.

5. Does it change the brain? No. It does not change the physical structure of the brain. It does enable the individual to change brain wave patterns.

6. Does it replace having to take medication? In many cases, participants no longer need and use medication. Discontinuing of medication, however, must always be discussed with the

prescribing physician and only after the progress in neurofeedback training has been documented and reviewed with the prescribing physician.

For more information, consult the following:

Books about Neurofeedback

The A.D.D. Book: New Understandings, New Approaches to Parenting Your Child by William Sears & Lynda Thompson. {See Chapter 8 for an excellent overview of neurofeedback theory and training procedures.}

A Symphony in the Brain, by Jim Robbins.

Introduction to Quantitative EEG and Neurofeedback, by James Evans & Andrew Abarbanel.

Internet Resources for Neurofeedback...

-Southeastern Biofeedback and Neurobehavioral Institute (Dr. Joel Lubar)
www.eegfeedback.org
-Behavioral Neurotherapy Clinic
www.adhd.com.au
-Society for Applied Physiology & Biofeedback
www.aapb.org
-EEG Spectrum
www.EEGspectrum.com/

Neurofeedback in the News...

-CNN: Biofeedback Widens Its Role in Medicine
-Good Morning America
-Parade Magazine "How to Calm a Child"

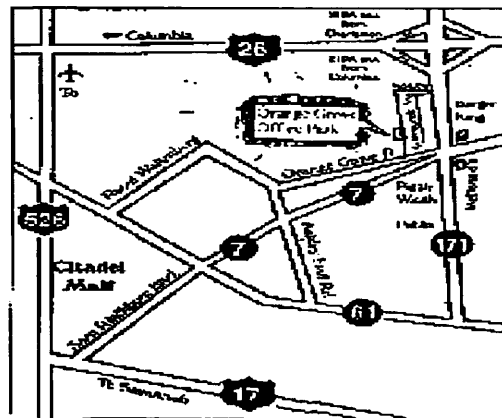
-Psychology Today "Wired for Miracles"
-National Public Radio-Weekend Edition
-CBS News-Reading, Writing, and Ritalin

Practices Outside Charleston using Neurofeedback for ADHD...

-Southeastern Biofeedback and Neurobehavioral Institute (Dr. Joel Lubar)
-Neurodynamix
-Braincare, Inc..

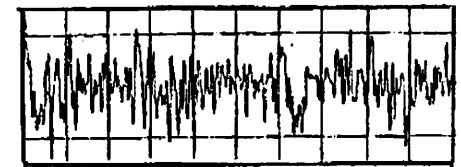
In Charleston

B.G. Quesenbery, Jr., Ph.D.
3 Gamecock Avenue, Suite 309
Charleston, SC 29407
Phone: 843-556-7820
website: www.drquesenbery.com
Email: office@drquesenbery.com



Directions:
On I-26 from North Charleston or Downtown to exit 216 A Cosgrave. Continue across Cosgrave Bridge to 2nd red light. Turn right on Orange Grove Road, then right onto Gamecock Ave. and, then, left into Orange Grove Office Park Building 3, Suite 309.

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Now offered by
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Located in the
Orange Grove Office Park
Building 3, Suite 309
3 Gamecock Avenue
Charleston, SC 29407
(843)556-7820
www.drquesenbery.com

Dr. Quesenbery is a S.C. Board Licensed Psychologist with certification in school psychology by the S.C. Department of Education and the National Association of School Psychologists. He is also a registrant in the National Registry of Health Service.