

# Brainmapping



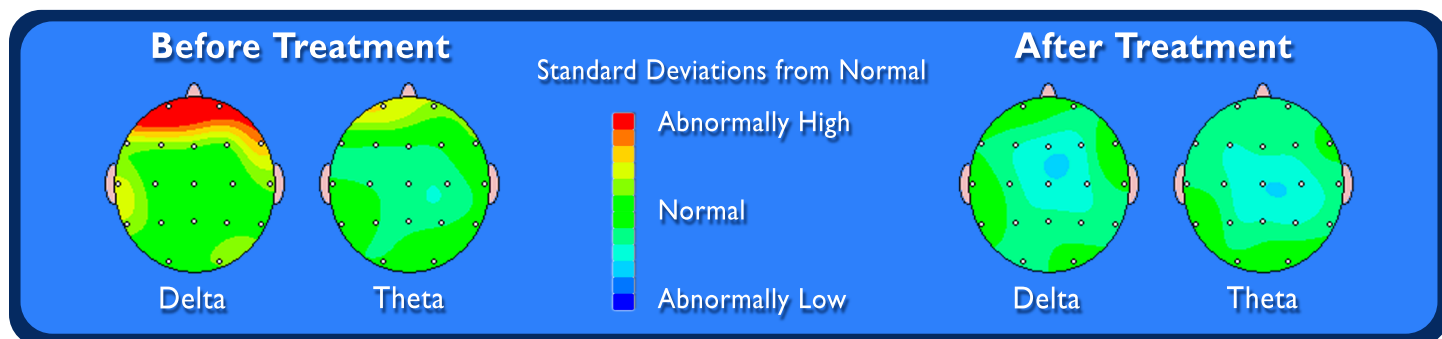
QEEG (Quantitative Electroencephalogram) or Brainmapping is an essential diagnostic procedure used in evaluating ADD/ADHD, Autism, Learning Disorders, Anxiety, and Depression. It tells us if the symptoms are neurologically based. If neurologically caused, then there is a high probability of treatment success using Neurofeedback and our comprehensive treatment program.

19 sensors are placed on the surface of the head and brain wave activity is recorded over those 19 areas. It is noninvasive and painless. Much like a thermometer which only records your temperature but does not affect your temperature, the Brainmap only records the electrical activity of the brain; it does not do anything to the brain.

The Brainmapping will detect if any area of the brain is malfunctioning or misfiring. The patient's Brainmap is processed and compared to a "normative database" that was developed through funding from NIH. The normative data base we use is FDA approved and is the best in the world. It shows how the patient's brain should be functioning at that age.

With the assistance of our neuropsychology staff, we know what cognitive or emotional functions each area performs. If one or more of the locations shows reduced activity (either from too many slow brain waves or not enough fast brain waves), then we can predict what type of symptoms the patient may be experiencing as a result of that area malfunctioning. For example, if the frontal region of the brain shows excessive slow brainwaves and the patient has attentional difficulties, then we have a "match" to help him/her with Neurofeedback to train the frontal lobe to regulate more normally.

As another example, the right temporal region is involved in emotional regulation, so if it is malfunctioning, we would expect the child to have difficulty with emotional regulation or frustration tolerance. Again, here we can help this child with Neurofeedback to normalize this region to improve emotional regulation.



QEEG is very similar to a physician doing a throat culture on a patient with a sore throat and fever to determine which antibiotic would best eradicate the infection.

Without a Brainmapping, a clinician cannot truly know if the symptoms are neurologically based, or simply psychological/behavioral. If neurological, the Brainmap pinpoints which brainwaves are abnormal and which location. Having analyzed thousands of patients' Brainmaps in our institute, we have an extensive clinical treatment database unique to the Drake Institute from which to draw.

Our Medical Director, David Velkoff M.D. and his neuropsychological staff develop the individualized Drake Institute neurofeedback protocols for each patient.



## The Drake Institute

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