

## **Brain Based Services at Inner Harbour Help Children Regulate Their Emotions**

Through the use of brain-based technology, Inner Harbour has been providing quicker, more effective treatments for a range of illnesses and conditions. To recognize this success and raise awareness of these services, 2009 has been tapped The Year of the Brain at Inner Harbour. Neuropsychiatric services at Inner Harbour encompass the largest brain-based technology treatment in the Southeast for troubled youth.

We now know that in many cases, parts of the brain may be damaged or undeveloped. This might be caused by any number of influences ranging from physical or emotional trauma, to chemical imbalances or developmental issues. Neuropsychiatric services at Inner Harbour encompass: clinical EEG analysis, cognitive rehabilitation, neurofeedback therapy, audio-visual stimulation, alpha stimulation and occupational and sensory integration therapy. By combining neuropsychiatric services in conjunction with a range of other therapies, Inner Harbour has been able to deliver optimal results for our clients.

Nine year-old Jenny T. (not her real name) found hope, freedom and friendship by actually learning how to learn. When admitted to Inner Harbour, Jenny presented a severe case of ADD/ADHD, which prevented her from functioning in even the most rudimentary classrooms, despite having a high I.Q. This disorder combined with other negative behaviors and family issues had a negative impact on Jenny's social skills. As a result, Jenny experienced shame, rejection, isolation and frustration, which in turn, fueled an intense anger that caused some very destructive behaviors.

After a thorough assessment by the psychiatrist and psychologist at Inner Harbour, a clinical EEG was ordered to measure Jenny's brain function. The clinical EEG and analysis is a test that actually maps, measures and evaluates brain wave function in an objective and scientific manner. Just as a physician can measure and evaluate heart rhythms by placing a stethoscope on the skin, the clinical EEG provides valuable clues about brain function. The process is painless and takes under one hour.

The clinical EEG and analysis aids in the Evaluation of Conditions Such as:

- Brain injury
- ADD/ADHD
- Learning Disabilities
- Depression
- Obsessive-Compulsive Disorder
- Asperger's

Jenny's clinical EEG indicated that some of her brain waves were overactive in the front of her brain. This made it difficult for her to actually pay attention and focus, and made it hard for her to think through situations before reacting. Based on those test results, Jenny's physician prescribed Neurofeedback therapy to help Jenny strengthen and

retrain her brain for improved functioning. The process is not unlike physical therapy, which teaches patients how to strengthen and regain the use of injured limbs after a stroke or injury.

By participating in a series of self-directed exercises that resemble video games, Jenny learned to improve her focus and attention. As light and sound with visual auditory stimulation were used to stimulate different parts of the brain, Jenny's cerebral responses became more flexible and self-regulating. An added benefit: the computer-based programs will actually increase the IQ by up to 10 points as shown in research studies. The overall process builds confidence and trust, which enhances the many other therapies used at Inner Harbour, such as African drumming, equine therapy, art and educational programs.

As Jenny learned to manage her behavior and achieve success in the classroom, she developed the social skills that enabled her to form friendships and participate in social, sports and recreational programs. NPS also helped Jenny regulate her emotions and communicate her needs to her parents, counselors and teachers.

Technicians at Inner Harbour are trained to provide Neuropsychiatric Services, and about 50% of Inner Harbour clients receive this treatment to some degree, as determined on a case-by-case basis. Treatments are adapted for use by children as young as six years old. Inner Harbour's goal is to continue to build on this vital area of treatment.

### **Benefits to Using Brain Based Services:**

**Reaches children who don't respond to medicine**

**Reduces medication**

**Reduces symptomology**

**Shorter treatment stays**

**Lasting outcomes**