

Brainwave Neurofeedback for Autism: Can It Help?

Helping children to control their own brainwaves may help autism symptoms.

Neurofeedback is an intervention that is showing promise for those diagnosed with Autistic Spectrum Disorder. While other childhood behavior disorders such as ADHD have been in the neurofeedback limelight for years, it appears that ASD is about to have its day in the sun. Recent research shows that children with ASD are responding well to EEG neurofeedback.

What is neurofeedback ?

Neurofeedback involves being monitored by a machine that monitors your brainwave activities through an electroencephalographic (EEG) machine. These brainwaves can be presented on a computer screen by either lines or graphs, or by simple objects such as a ball. As the child uses neurofeedback, and gets closer to having the “normal” brainwave patterns, they will notice the ball or lines on the screen change. This is essentially a way of teaching a child how to self-regulate their own brainwaves. (BrainCore Neurofeedback of Indiana uses DVDs and puzzles as reinforcement.)

As with any activity, practice is essential to improving performance. Very few side effects to neurofeedback have been identified, and no serious concerns have been seen. Some children have noted headaches and muscular tension with HEG. (BrainCore Neurofeedback of Indiana does not use HEG)

Does neurofeedback work for autism?

Reports suggest improvements in a variety of areas including speech and irritability. A few scientific reports have highlighted that a demonstrated increase in social interaction may be seen in child with autism following treatment. One study suggested that parents continued to see the benefits for at least a year after neurofeedback. We know from other studies that the brainwaves of children with autism may well be different in many ways to the brainwaves of their non-autistic peers.

Although neurofeedback looks promising as an option for treating symptoms of autism, looking through the scientific literature, it appears that there have been only a very limited number of studies. Some researchers have suggested that the findings supporting the use of neurofeedback in ASD are inconclusive. I think, as several others have commented, that this is likely to be as a result of a lack of research studies into this interesting area not its efficacy.

The story of neurofeedback and another childhood condition, ADHD, is different. Neurofeedback has been shown to help children with ADHD by improving hyperactivity, impulsivity, and inattention. Interestingly, we know that many children with autism may also have these symptoms. It has been suggested that 1 in 3 children with autism may also have ADHD.

Spectrum Theory – June 12, 2013

Arshya Vahabzadeh, M.D. Massachusetts General Hospital & Harvard Medical School. APA Leadership Fellow.