

Improving Brain Function Through Positive Feedback.

Neurofeedback Therapy is a non-invasive treatment that trains the brain to self regulate by monitoring its activity in real time. Imagine watching your brain's activity in real-time then controlling it like tuning a radio to the station you desire. The goal is not only to change how you think and feel, but also change the brain on a biological level and improve function.

When given the proper support, the brain is receptive to neuroplasticity... the ability to adapt and change. Based on this ability, Neurofeedback Therapy may provide improvement for neurological conditions, improve focus, reduce stress, and calm brain waves.

How Important Are Brain Waves?



The brain uses electrical impulses to communicate. The five types of brain waves are measured by two properties:

Amplitude: the measurement from the low to high points.

Frequency: the number of waves passing a certain point in one second and recorded in hertz (Hz).

In mental health disorders, brain wave patterns can become disrupted, leading to unhealthy biological activity and behavior. The goal of neurofeedback is to help modulate these dysregulated brain wave patterns.

Conditions That Can Be Treated

Because all brain activity and functions involve brain waves, this treatment is available for a wide range of brain-based conditions and disorders including:

- **Neurological Issues and Traumatic Brain Injuries**
- **Strokes**
- **Developmental Delays & Behavior Disorders**
- **Mental Health and Psychiatric Disorders**
- **Increase Performance:** For those who want to excel in daily challenges such as school, work, or sports.

Neurofeedback Types

The various types differ based on the type of brain waves being trained, goals of therapy, and number of targeted sites in the brain. The most common types are:

Amplitude training: This is the original and still most popular approach in the field. It focuses on increasing or decreasing the size of certain brain waves.

Slow cortical training (ILF, ISF, and SCP): This approach trains the slowest brain waves, which can help with emotional regulation and brain stabilization.

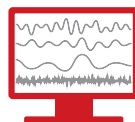
Z-score training: The goal of this approach is to encourage a patient's brain wave activity to move towards the norm or average of healthy people.

How Neurofeedback Works

Neurofeedback Therapy differs from other brain-based therapies (TMS, LENS, or tDCS) by not subjecting the brain to electrical current or electromagnetic stimulation. Instead, it trains the brain using the principles of operant conditioning and positive feedback (rewards).



Sensors placed on the head record brain wave activity (QEEG).



The computer program analyzes the brain waves in real-time.



"Sensory rewards" are sent to the brain in the form of visual/audio feedback reinforcing positive activity. Over time, the brain is trained to create "new habits" of electrical activity.

Establish A Goal. The patient's condition is evaluated to determine the type of neurofeedback system best suited to the need. For example, treating anxiety may be to regulate fast brain wave activity so the patient feels calmer and more relaxed.

Measure Brain Wave Activity. Utilizing QEEG (Quantitative Electroencephalogram), sensors are placed on the scalp to measure brain waves in real time. During the 30-60 minute session, the patient may watch a movie, play a video game, or listen to music as neurofeedback training begins.

Repetitive Training. The sensors continuously monitor brain waves and give positive feedback when treatment goals are met. This process gives the brain thousands of opportunities to self-correct and be rewarded within a single session.

Contact Southern Regenerative & Neurological Wellness with any questions about the therapy, treatments, or scheduling a consultation or appointments.