Neurofeedback Patient Handout

Your Brain's Path to Healing and Strength

We Understand What You're Going Through

Living with a challenge like anxiety, ADHD, depression, PTSD, insomnia, a concussion, autism, headaches, performance struggles, schizophrenia, seizures, stress, bipolar disorder, or addiction can feel overwhelming. Maybe you're wrestling with racing thoughts that won't stop, a foggy mind that won't focus, or emotions that swing out of control. Perhaps sleep feels like a distant dream, or pain and tension follow you daily. You might feel stuck, like your brain is working against you; trapped in worry, cravings, or memories you can't escape. We get it. You're not alone, and there's hope. Neurofeedback could be the key to unlocking a calmer, clearer, stronger you.

What is Neurofeedback?

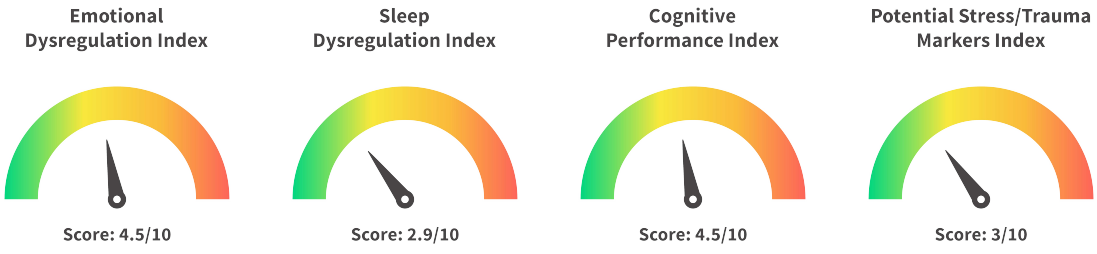
Neurofeedback is a gentle, non-invasive, drug-free way to train your brain. Picture this: tiny sensors on your scalp measure your brainwaves, like a window into how your mind works. Then, through sounds or visuals (think of it as a game your brain plays), you get real-time feedback. Your brain learns to adjust itself, finding balance and easing the symptoms holding you back. It's like a gym workout for your mind, empowering it to heal and thrive naturally.

How Your Brain Might Be Struggling

Whatever you're facing, it likely ties to brainwave patterns gone off track. Anxiety and stress rev up fast "beta" waves, keeping you tense. ADHD and concussions slow things down with too much "theta," clouding focus. Depression or bipolar disorder can unbalance your brain's rhythm, dragging you low or spiking you high. PTSD and addiction lock you in survival mode or craving cycles. Insomnia fights restful "delta" waves, while seizures, schizophrenia, headaches, and autism disrupt smooth brain communication. Even performance slumps when your brain can't hit that sweet spot of focus and calm. Sound familiar? Your brain's doing its best, but it might need a guide.

How Neurofeedback Can Help You

No matter your condition, neurofeedback meets you where you are. It targets those wonky brainwaves, teaching your mind to self-regulate. Feeling anxious or stressed? It calms the storm. Battling ADHD or a brain injury? It sharpens focus. Down with depression or bipolar? It steadies your mood. Haunted by PTSD or addiction? It eases triggers and cravings. Sleepless from insomnia? It lulls you to rest. Fighting seizures, schizophrenia, or migraines? It smooths erratic patterns. Living with autism? It boosts calm and connection. Aiming to perform at your peak? It fine-tunes your edge. Research backs this up. Neurofeedback has helped countless people reduce symptoms and reclaim control.



What Happens During the Training Session?

Neurofeedback is a painless, non-invasive procedure. During each training session, you will wear a special cap with sensors at various locations. The sensors are connected to a small amplifier attached to the cap. It transmits data to detect, amplify, and record specific brain activity to the neurofeedback app on your device. The software processes the signal and provides the appropriate visual and audio feedback. Your brain and body want to be in a state of "homeostasis", or a state of health or balance. During neurofeedback training, the brain gradually responds to the audio and visual feedback. This is how learning to produce a healthier brain wave occurs. The brain learns a new brain pattern, which is closer to what is normally observed in people without such conditions.

What to Expect on Your Journey

- *Sessions*: Typically 20-40 sessions, 20 minutes each, 1-3 times a week.
- *Results*: Many notice shifts, like less worry, better sleep, or clearer thoughts, within weeks, though everyone's pace is unique.
- *Safety*: It's painless, with no side effects for most, just a chance to relax while your brain learns.
- *Assessment*: You'll start with a "neuro assessment" to pinpoint what's off, then get a plan tailored to you. It's not instant magic, but a steady path forward.
- *Remote*: Convenient training from the comfort of home.

What is the process like?

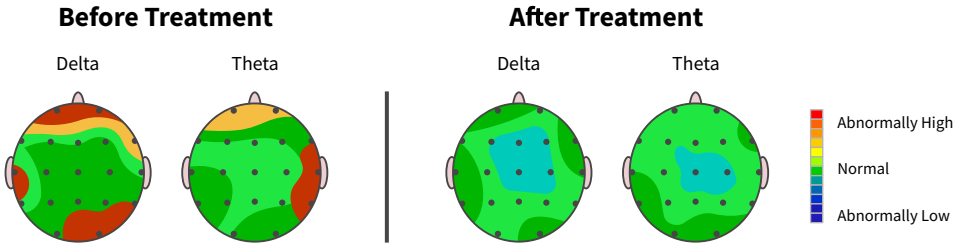
In the initial evaluation, we gather information about your symptoms, your health, and your family history. In the comfort of your home, you will use a special EEG cap to measure the electrical activity of your brain and tells us which areas of your brain could benefit from neurofeedback training, and which type of neurofeedback. This is the road map we use to guide you to personalized training.

What do I do during the training session?

Your top priority is to relax while the training takes place. You will watch your favorite movie or other video inside the patient app. All you need to do is focus on the video while it responds to your brain wave activity, giving you the appropriate visual and audio cues for training, such as the video getting brighter or dimming.

Are these changes permanent?

According to research over the past 50 years, changes created by neurofeedback remain, unless the brain is further harmed by other trauma, disease, or injury. Once the brain's normal rhythmic patterns have been restored, neurofeedback training is usually no longer necessary. Life changing events may retrigger symptoms, but fewer neurofeedback sessions are needed to restore brain efficiency. This is because a healthy or normal state is the most stable state for the mind and body.



When will I see some change?

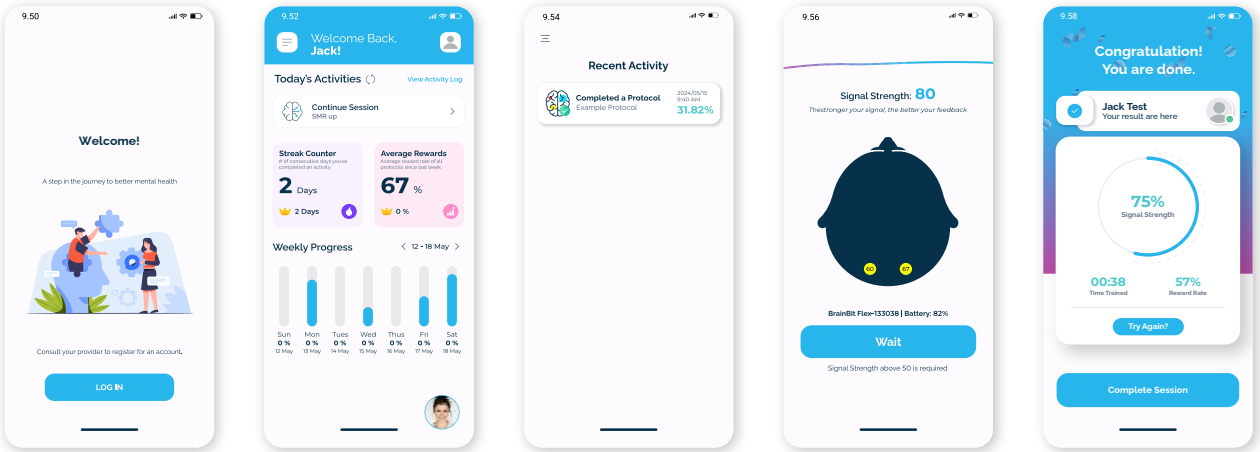
For some patients, immediately, though there are many variables that exist in each patient neurofeedback experience. Generally speaking, change is seen within the first 10-12 sessions. However, with individual variations, more complex conditions require more sessions before changes are noticed.

Are there any adverse effects?

There are rarely adverse effects of neurofeedback. Nevertheless, patients have occasionally stated feeling tired, too “cloudy” or too “revved-up” temporarily after sessions.

A Seamless Patient Experience

We make remote neurofeedback simple with a convenient patient app. Netflix and train.



Why Neurofeedback Could Be Your Answer

We know you’ve tried hard; meds that don’t quite fit, strategies that wear thin, or just pushing through exhaustion. Neurofeedback is different. It doesn’t mask symptoms; it retrains your brain at the root. It’s natural, empowering you to heal without dependency. Whether you’re soothing anxiety’s grip, lifting depression’s weight, or breaking addiction’s hold, it’s like giving your brain a reset button. Pair it with therapy, lifestyle tweaks, or support, and you’ve got a team effort for real change.

You’re Stronger Than You Know

Living with any of these challenges takes grit. Maybe you feel discouraged, like relief is out of reach. But your brain is amazing; it can adapt, grow, and heal. Neurofeedback taps into that power, helping you find calm amid chaos, focus through fog, or peace after pain. Imagine quieter days, sharper moments, or nights where sleep finally comes. You deserve that. You’ve been fighting this fight, and now your brain can learn to fight for you.

Take the Next Step

Ready to explore this? Talk to one of our providers for a neuro assessment and a plan just for you. Whatever you’re facing; anxiety, ADHD, depression, PTSD, insomnia, concussion, autism, headaches, performance dips, schizophrenia, seizures, stress, bipolar, or addiction, there’s a way forward. Your brain’s ready to heal. Are you?

Understanding Your Brain

Conditions, Brainwave Patterns, and Neurofeedback

Your brain generates electrical activity, known as brainwaves, which can be measured using an electroencephalogram (EEG). Different brainwave patterns are linked to specific mental health or neurological conditions. Neurofeedback is a non-invasive therapy that trains your brain to regulate these patterns, improving symptoms and enhancing well-being. This handout explains common conditions, their brainwave patterns, and how neurofeedback can help.

1

ADD and ADHD

What is it? Attention-Deficit Disorder (ADD) and Attention-Deficit/Hyperactivity Disorder (ADHD) involve difficulty focusing, impulsivity, or hyperactivity that impacts school, work, or relationships.

Brainwave Patterns: Elevated slow theta waves and reduced fast beta waves in the frontal lobe, leading to poor focus and self-regulation.

How Neurofeedback Helps: Training increases beta waves for better focus and decreases theta waves to improve attention and impulse control. Many patients see improved concentration and behavior.

2

Addiction

What is it? Compulsive use of substances or behaviors despite harm, driven by reward-seeking.

Brainwave Patterns: Dysregulated beta waves (impulsivity) and low alpha/theta waves, impairing self-control and relaxation.

How Neurofeedback Helps: Balances beta waves for better impulse control and boosts alpha/theta waves to reduce cravings. Patients often report stronger self-regulation and reduced urges.

3

Anxiety

What is it? Anxiety involves excessive worry, fear, or nervousness that can interfere with daily life.

Brainwave Patterns: High levels of fast beta waves (associated with overthinking) in areas like the frontal lobe, often with low alpha waves (linked to relaxation).

How Neurofeedback Helps: Neurofeedback trains the brain to increase alpha waves and reduce excessive beta waves, promoting calmness and reducing overactive worry. Patients often report feeling more relaxed and in control after sessions.

4

Autism Spectrum Disorder (ASD)

What is it? ASD involves challenges with social interaction, communication, and repetitive behaviors.

Brainwave Patterns: Irregular patterns, such as excessive theta or delta waves and reduced connectivity between brain regions, affecting processing and behavior.

How Neurofeedback Helps: Training improves brain connectivity and balances brainwaves, enhancing focus, communication, and emotional regulation. Many patients show improved social skills and reduced sensory issues.

5

Bipolar Disorder

What is it? Bipolar disorder causes extreme mood swings, from mania (high energy) to depression (low mood).

Brainwave Patterns: Imbalances in beta (during mania) and theta/alpha waves (during depression), with poor regulation between brain regions.

How Neurofeedback Helps: Training stabilizes brainwave patterns, promoting emotional balance. Patients often report more stable moods and better self-regulation.

6 **Cognitive and Memory Issues**

What is it? Problems with memory, focus, or thinking, often due to aging, stress, or neurological conditions.

Brainwave Patterns: Reduced fast beta or gamma waves (linked to sharp thinking) and excessive slow theta waves, impairing mental clarity.

How Neurofeedback Helps: Training enhances beta and gamma waves to improve mental sharpness and reduces theta waves for better memory. Patients often notice clearer thinking and improved recall.

7 **Concussion and Traumatic Brain Injury (TBI)**

What is it? Concussions or TBIs result from head injuries, causing symptoms like headaches, memory issues, or mood changes.

Brainwave Patterns: Disrupted brainwave patterns, often with excessive slow delta or theta waves and reduced beta waves, affecting cognition and mood.

How Neurofeedback Helps: Neurofeedback restores balanced brainwave activity, reducing slow waves and boosting beta waves for clearer thinking. Patients often see reduced symptoms and improved recovery.

8 **Depression**

What is it? Depression causes persistent sadness, low energy, and loss of interest in activities.

Brainwave Patterns: Imbalances such as increased slow theta or alpha waves in the left frontal lobe (linked to low motivation) and reduced beta waves (affecting energy).

How Neurofeedback Helps: Neurofeedback targets these imbalances, boosting beta waves for energy and balancing alpha/theta waves to lift mood. Patients often report brighter moods and increased motivation.

9 **Dissociative Disorders**

What is it? Conditions like dissociative identity disorder or depersonalization involve disconnection from thoughts, feelings, or reality, often tied to trauma.

Brainwave Patterns: Disrupted connectivity between brain regions, with excessive theta waves (disconnection) and low alpha waves (poor grounding).

How Neurofeedback Helps: Enhances brain connectivity and balances theta/alpha waves, promoting a sense of presence and emotional stability. Patients often report improved awareness and reduced dissociative episodes.

10 **Insomnia**

What is it? Insomnia involves difficulty falling or staying asleep, leading to fatigue.

Brainwave Patterns: High beta waves at bedtime (overactive mind) and low alpha or theta waves (needed for relaxation and sleep onset).

How Neurofeedback Helps: Training promotes alpha and theta waves to relax the brain and reduces beta waves to quiet mental chatter. Many patients report improved sleep quality and duration.

11 **Migraine and Headache**

What is it? Migraines and chronic headaches cause intense pain, often with sensitivity to light or sound.

Brainwave Patterns: Excessive fast beta waves (linked to tension) and low alpha waves, disrupting pain regulation.

How Neurofeedback Helps: Neurofeedback increases alpha waves to promote relaxation and reduces beta waves to lower tension. Patients often report fewer and less severe headaches.

12 **Optimal Performance**

What is it? This refers to enhancing mental and physical performance for athletes, professionals, or anyone seeking peak focus and resilience.

Brainwave Patterns: Optimal performance requires balanced alpha (relaxed focus) and beta waves (alertness) with strong gamma waves (peak cognition).

How Neurofeedback Helps: Training fine-tunes brainwave balance, enhancing focus, reaction time, and stress resilience. Users often achieve better performance in sports, work, or creative tasks.

13 **Post-Traumatic Stress Disorder (PTSD)**

What is it? PTSD develops after trauma, causing flashbacks, nightmares, or hypervigilance.

Brainwave Patterns: Overactive fast beta waves in the amygdala (fear center) and low alpha waves, leading to hyperarousal and poor relaxation.

How Neurofeedback Helps: Neurofeedback reduces excessive beta waves and increases alpha waves, calming the brain's fear response. Patients often experience fewer flashbacks and better emotional regulation.

14 **Schizophrenia**

What is it? Schizophrenia involves hallucinations, delusions, and disorganized thinking.

Brainwave Patterns: Abnormal gamma and theta wave activity, with disrupted connectivity between brain regions, affecting perception and cognition.

How Neurofeedback Helps: Neurofeedback stabilizes gamma and theta waves, improving brain connectivity and reducing symptoms. Patients may experience clearer thinking and fewer hallucinations.

15 **Seizures and Epilepsy**

What is it? Seizures are sudden, uncontrolled electrical disturbances in the brain, causing convulsions or loss of awareness. Epilepsy is a neurological disorder causing recurrent seizures due to abnormal brain activity.

Brainwave Patterns: Abnormal spikes in brainwave activity, often with excessive delta or theta waves, disrupting normal function.

How Neurofeedback Helps: Neurofeedback trains the brain to stabilize electrical activity, reducing seizure frequency and severity. Many patients see improved seizure control alongside medication.

16 **Stress**

What is it? Chronic stress causes physical and mental strain, affecting mood, sleep, and health.

Brainwave Patterns: High beta waves (overactive mind) and low alpha waves, leading to tension and poor relaxation.

How Neurofeedback Helps: Training increases alpha waves for relaxation and reduces beta waves to calm the mind. Patients often feel less overwhelmed and more resilient.

What Research Says About Neurofeedback

Research confirms the effectiveness of neurofeedback as a therapy for many conditions. Here are some highlights from the wealth of science supporting it.

ADD/ADHD

- *Effects of Neurofeedback in Children with Attention-Deficit/Hyperactivity Disorder: A Systematic Review*
- *EEG & qEEG Technology Identifies Neurobiomarkers Critical to Medication Selection and Treatment for Children and Adolescents with ADHD*
- *Efficacy of neurofeedback treatment in ADHD: the effects on inattention, impulsivity and hyperactivity: a meta-analysis*
- *Double-Blind 2-Site Randomized Clinical Trial of Neurofeedback for ADHD*
- *A Position Paper on Neurofeedback for the Treatment of ADHD*

Addiction

- *Neurofeedback in Substance Use and Overeating: Current Applications and Future Directions*
- *Neurofeedback: an integrative treatment of substance use disorders*
- *Effects of an EEG biofeedback protocol on a mixed substance abusing population*
- *Predicting Relapse to Alcohol and Drug Abuse via Quantitative Electroencephalography*

Anxiety

- *The Effect of Quantitative Electroencephalography-Based Neurofeedback Therapy on Anxiety, Depression, and Emotion Regulation in People with Generalized Anxiety Disorder*
- *A Meta-Analysis of Neurofeedback for Treating Anxiety-Spectrum Disorders*
- *QEEG-Guided Neurofeedback Treatment for Anxiety Symptoms*
- *Using Neurofeedback to Lower Anxiety Symptoms Using Individualized qEEG Protocols*

Autism

- *Electroencephalogram (EEG) for children with autism spectrum disorder: evidential considerations for routine screening*
- *Neurofeedback for autistic spectrum disorder: a review of the literature*

Attachment Disorder

- *Neurofeedback: A Treatment for Reactive Attachment Disorder*
- *Neurofeedback and attachment disorder: Theory and practice*

Bipolar Disorder

- *Efficacy of an integrative approach for bipolar disorder: preliminary results from a randomized controlled trial*
- *Effectiveness of Neurofeedback Training for Patients with Personality Disorders: A Systematic Review*

Cognitive and Memory Issues

- *The Effect of Cognitive Training with Neurofeedback on Cognitive Function in Healthy Adults: A Systematic Review and Meta-Analysis*
- *EEG-Neurofeedback as a Potential Therapeutic Approach for Cognitive Deficits in Patients with Dementia, Multiple Sclerosis, Stroke and Traumatic Brain Injury*
- *Neurofeedback Improves Memory and Peak Alpha Frequency in Individuals with Mild Cognitive Impairment*
- *The effectiveness of neurofeedback on cognitive functioning in patients with Alzheimer's disease: Preliminary results*
- *Mild Cognitive Impairment and Neurofeedback: A Randomized Controlled Trial*

Concussion and Traumatic Brain Injury (TBI)

- *An Overview of the Use of Neurofeedback Biofeedback for the Treatment of Symptoms of Traumatic Brain Injury in Military and Civilian Populations*
- *Quantitative Electroencephalography in Cerebral Ischemia. Detection of Abnormalities in "Normal" EEGs*
- *The Elusive Nature of Mild Traumatic Brain Injury*
- *Effects of Neurofeedback on the Short-Term Memory and Continuous Attention of Patients With Moderate Traumatic Brain Injury: A Preliminary Randomized Controlled Clinical Trial*

Depression

- *Efficacy of bio- and neurofeedback for depression: a meta-analysis*
- *Neurofeedback Treatment on Depressive Symptoms and Functional Recovery in Treatment-Resistant Patients with Major Depressive Disorder: an Open-Label Pilot Study*
- *Effects of neurofeedback on major depressive disorder: a systematic review*
- *Neurofeedback Treatment of Depression and Anxiety*
- *The Current Evidence Levels for Biofeedback and Neurofeedback Interventions in Treating Depression: A Narrative Review*

Insomnia and Sleep Issues

- *Slouched Posture, Sleep Deprivation, and Mood Disorders: Interconnection and Modulation by Theta Brain Waves*
- *Sleep maintenance, spindling excessive beta and impulse control: an RDoC arousal and regulatory systems approach?*

Migraine and Headache

- *Neurofeedback and biofeedback with 37 migraineurs: a clinical outcome study*
- *QEEG-guided neurofeedback for recurrent migraine headaches*
- *Efficacy of biofeedback for migraine: A systematic review and meta-analysis*
- *A Clinical Outcome Study Of Neurofeedback And Biofeedback For Migraine Headache*
- *Study protocol for a randomized controlled trial of neurofeedback mindfulness in chronic migraines*

Obsessive Compulsive Disorder (OCD)

- *Neurofeedback for obsessive compulsive disorder: a randomized, double-blind trial*
- *The efficacy of biofeedback approaches for obsessive-compulsive and related disorders: A systematic review and meta-analysis*
- *Obsessive compulsive disorder and the efficacy of qEEG-guided neurofeedback treatment: a case series*
- *QEEG-Guided Neurofeedback in the Treatment of Obsessive Compulsive Disorder*

Optimal Performance

- *Validating the efficacy of neurofeedback for optimizing performance*
- *Neurofeedback training for cognitive performance improvement in healthy subjects: A systematic review*
- *The effect of neurofeedback training for sport performance in athletes: A meta-analysis*
- *EEG-neurofeedback for optimizing performance. II: Creativity, the performing arts and ecological validity*
- *Select Abstracts: Neurofeedback and Peak Performance*
- *Improving Mental Skills in Precision Sports by Using Neurofeedback Training: A Review*

Post Traumatic Stress Disorder (PTSD)

- *The Effectiveness of Using Neurofeedback in the Treatment of Post-Traumatic Stress Disorder: A Systematic Review*
- *Efficacy of Neuro-Feedback Training for PTSD Symptoms: A Systematic Review*
- *A Randomized Controlled Study of Neurofeedback for Chronic PTSD*
- *Systematic review and meta-analysis of neurofeedback and its effect on posttraumatic stress disorder*
- *A randomized, controlled trial of alpha-rhythm EEG neurofeedback in posttraumatic stress disorder: A preliminary investigation showing evidence of decreased PTSD symptoms and restored default mode and salience network connectivity using fMRI*

Schizophrenia

- *Treatment of Schizoaffective Disorder and Schizophrenia With Mood Symptoms*
- *Neurofeedback Treatment of Negative Symptoms in Schizophrenia: Two Case Reports*
- *A Systematic Review of the Potential Use of Neurofeedback in Patients With Schizophrenia*
- *An Exploratory Study of Intensive Neurofeedback Training for Schizophrenia*

Seizure and Epilepsy

- *Isolated epileptiform activity in children and adolescents: prevalence, relevance, and implications for treatment*
- *Phenotypes and Medication Prediction*
- *Meta-analysis of EEG biofeedback in treating epilepsy*

Stress and Trauma

- *Getting stress-related disorders under control: the untapped potential of neurofeedback*
- *Clinical Neurofeedback*