

**NeuroHealth Solutions**  
**Program for Assessment and Rehabilitation of a Head Injury**  
**caused by a Workplace Injury, Automobile Accident, Sports**  
**Injury, Personal Injury**



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ACQUIRED  
BRAIN INJURY

**Have you suffered a Concussion from a Workplace Injury, Auto  
Accident, Slip and Fall or Sports Injury?  
Call 480-696-5796**

*If you are experiencing any of the symptoms below, you may be suffering from a concussion or traumatic brain injury. It is important to take what may seem like just a bump on the head seriously. Getting diagnosed with a concussion as early as possible and seeking cognitive rehabilitation, if necessary, is crucial. In many cases, there are personal or workplace injury remedies to get the quality of care you are entitled to and the outcome you deserve.*

- Frequent Headaches
- Chronic Headaches
- Migraines
- Numbness or Tingling
- Confusion
- Slurred Speech
- Weakness
- Blurred Vision
- Nausea
- Hot or Cold Spells
- Loss of Balance
- Nausea
- Hot or Cold Spells
- Loss of Coordination
- Left Side Weakness
- Right Side Weakness
- Chronic Fatigue
- Irritability
- Fogginess
- Inability to Focus
- Depression
- Sleep Disturbances
- Anxiety
- Stress
- Hearing Loss
- Changes in Taste
- Changes in Smell
- Mood Swings

A concussion is common in auto accidents, sports injuries, slips and falls, workplace accidents or even more traumatic accidents for bodily injury to make a head injury seem so minor that neither doctor nor patient recognize it has occurred. A concussion is not always caused by an apparent direct force blow or jolt to the head but be caused simply by a rapid change in direction such as an acceleration/deceleration force that is multi- focal, causing neuron axonal damage. These otherwise innocuous conditions can change the way your brain normally works and more importantly concussion recovery times can vary greatly. Since there is likely a Traumatic Brain Injury, the patient care plan management process can be more involved.

## **NHS Acquired Brain Injury Services:**

- Clinician Examination and Evaluation
- Counseling and Psycho Therapy
- Neuro Fitness Assessment <sup>™</sup> (NFA)
- Qualitative Analysis and Assessment
- EEG and QEEG
- LORETA Analysis
- Neurofeedback
- Neuro Augmented Therapies
- Acute Stress Response <sup>™</sup> (ASR) Assessment
- Advanced Simulation Therapy<sup>™</sup> (AST)
- NeuroOptimization Training
- Hyperbaric Oxygen Therapy
- Workers' Compensation or Personal Injury Insurance Case Management

Depending on the circumstances surrounding the cause of your injury an attorney that specializes in Personal Injury Claims may be helpful. We will discuss this during your initial visit and our Patient Care Management Team can assist you with a recommendation. If you already have an attorney, we will work with them. Our focus is always on what is best for your recovery.

## **What to Expect**

Your NHS experience will vary based on the type of injury you have but may include:

- Clinician Examination and Evaluation
- Neuro Fitness Assessment (NFA)
- Qualitative Testing
- Quantitative Testing; Brain Scope; EEG; QEEG;
- LORETA Analysis
- Acute Stress Response <sup>™</sup> (ASR) Assessment
- Counseling and Psycho-Therapy

A Patient Care Plan will be prepared based on the clinical examination and the results from the NFA, testing and Counseling session(s). You may be referred to a Neurologist or Neuro-Psychologist for a second opinion of your Care Plan.

## Rehabilitation Therapies May Include:

Cognitive Rehabilitation Protocols  
NeuroFitness Assessment  
qEEG Clinical Analysis  
fMRI Dysregulation Metrics  
Diffuse Tensor Imaging Metrics  
Network Injury Index  
Acute Stress Response Training

LORETA Analysis  
Advanced Simulation Therapy™ (AST)  
NeuroOptimization Training  
10 sessions then reevaluate  
Whole Body Vibration Therapy  
Hyperbaric Oxygen Therapy

## Redefining Concussion Recovery

NeuroHealth Solutions Delivers the Future in Neuro-Science and Technology for TBI Recovery. Recent studies have shown that more than 2.4 million ER visits, hospitalizations and deaths are attributable to Traumatic Brain Injury (TBI) annually in the United States, with 5.3 million individuals suffering from the after effects of TBI at any given time. TBI is responsible for 12% of hospitalizations, costing the US 76 billion dollars every year. Afflicted individuals typically require 5-10 years of intensive therapy, often without measurable and quantifiable results. Traumatic brain injury (TBI), also known as acquired brain injury or simply, head injury, occurs when a sudden trauma causes damage to the brain. This damage can be focal (confined to one area of the brain) or diffuse (involving more than one area of the brain). Concussion is the most common type of TBI. Technically, a concussion is a short loss of consciousness or temporal blackout where the patient experiences a dazed and confused state of consciousness in response to a head injury, but in common language the term has come to mean any minor injury to the head or brain. Historically, the belief was that there was no long term after effects on overall brain function from such injuries, but new research has shown that concussions may result in long-term alterations of higher brain functions. To date, no effective drug therapy has been found to improve outcomes in TBI. However, recent developments in neuroscience and technology, specifically Advanced Simulation Therapy has been shown to make significant improvements in cerebral edema and perfusion, neuronal proliferation, neurogenesis, synaptogenesis, neural network connectivity, cognitive performance and behavior deficits as well as overall quality of life measures and return to work competencies.

## What is NHS Rehabilitation?

NeuroHealth Solutions (NHS) delivers cognitive rehabilitation services for neurological disorders including Acquired Brain Injury. NHS's core team of clinicians and technicians with backgrounds in acquired brain injury, clinical electroencephalography, quantitative electroencephalography (qEEG), psychology and neurophysiology, work together to assess,

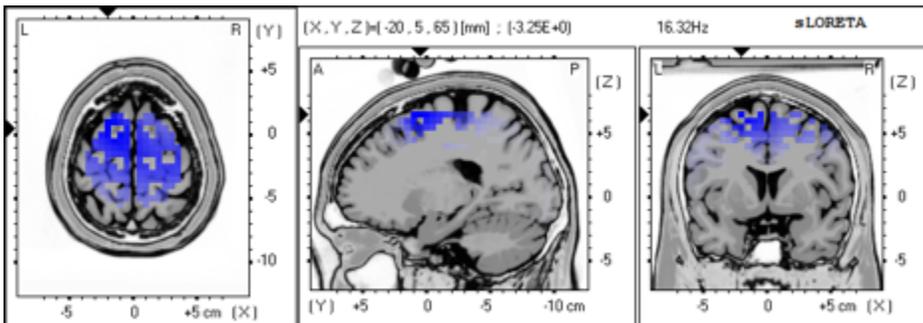
analyze and determine neuro-optimization approaches for recovery and rehabilitation of neurological maladies.

Health professionals at NHS develop and implement an individualized rehabilitation care plan for each patient or client – based on their whole-person needs – to optimize, re-organize and normalize brain function. This cutting-edge approach, which is an integration of multiple biofeedback, neurofeedback and neuro-stimulation modalities, contributes to an efficacious change in brain morphology. It is the integration and insightful deployment of these modalities, as the core of whole-person care plans, that provides individuals with the opportunity to heal from a traumatic brain injury and return to normal function – with significantly reduced long-term risks to their health and well-being.

## What is the process for doing a qEEG Brain Map?

Recording a brain map is a non-invasive process using 19 special sensors placed on the head using the International 10-20 system. This universal protocol positions each sensor on a precise part of the brain. Once recording starts, you will sit comfortably for a short period while the qEEG recording is completed. Analysis of the results is conducted at NHS and reviewed by our Brain Injury Specialist. Based on the results, a treatment plan is initiated along with an explanation of the findings, and what to expect from treatment.

## Enhanced Mapping Using LORETA Analysis



LORETA Brain Mapping — also called Low Resolution Brain Electromagnetic Tomography (LORETA), is a method of producing three-dimensional patterns of activity in your brain. Each image highlights activity in different regions of the brain at different frequencies. The

advantage of LORETA testing over using only standard qEEG is the ability to find functional abnormalities in the deeper structures of the brain, similar to a functional magnetic resonance (fMRI) but at much lower cost.

We often use LORETA in circumstances where enhanced images are needed to help diagnose a condition. For more information and to learn how qEEG brainmapping can help you, please contact us.



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