Concussion is a common injury, but is often difficult to diagnose and treat. **The Brain Gauge** provides clinicians with invaluable information that can help take the guesswork out of concussion management and promote safe return-to-play decisions for athletes and return-to-school decisions for students.

CONCUSSION FACTS

- Concussions can occur in any sport or physical activity.
- About 10% of all student athletes in contact sports suffer a concussion during their season.
- Recovery may take days or weeks, with individuals often experiencing dizziness, headaches, double vision, memory problems, irritability and depression.
- Premature return to play following a concussion can lead to potentially serious consequences.

BRAIN GAUGE

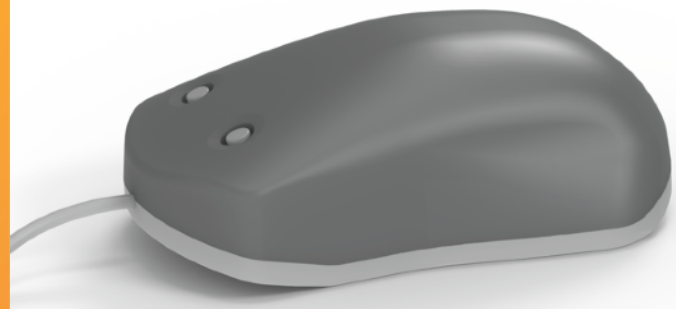
Concussion Assessment Tool

ACCURATE
World's Most Accurate Reaction Time

EASY
Easy to Interpret Results

REAL
Actual Measurement of Brain Function

SCIENCE
Based on Decades of Neuroscience



BRAIN GAUGE

Concussion Assessment Tool

A BETTER WAY TO MONITOR CONCUSSION

corticalmetrics

sponsored by:

Office of Naval Research

University of North Carolina

POST-INJURY TESTING AND CONCUSSION MONITORING WITH BRAIN GAUGE

WHAT IS BRAIN GAUGE?

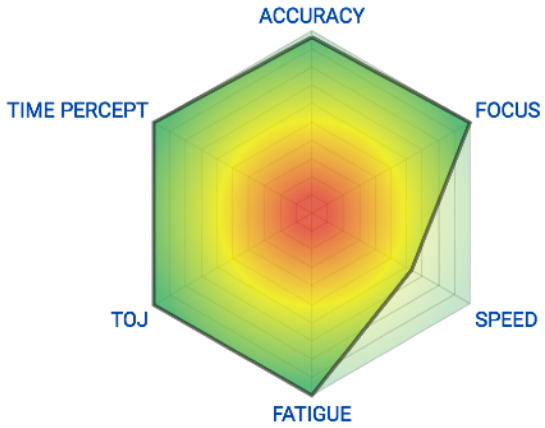
Brain Gauge is a hands-on battery of neurocognitive tests that has been scientifically validated to measure the effects of concussion and other neurological disorders. Brain Gauge uses your perception of physical touch to ascertain your brain's performance. When the Brain Gauge pulses your fingertips, regions in your brain become active and talk to each other in a very specific manner. The Brain Gauge system measures this communication by asking a few simple questions — similar to the way you would read an eye chart: as you answer the questions correctly, the successive questions become more difficult in order to approach your limits of detection.

WHY USE BRAIN GAUGE?

Brain Gauge can help answer difficult questions about an athlete's readiness to return to play and potentially protect them from the serious consequences of returning too soon. While traditional neurological and radiological procedures such as MRI and CT are helpful in identifying serious brain injuries (like hematomas and fractures of the skull), they are ineffective at identifying the functional effects of concussion. Consequently, clinicians often must rely on subjective observations or patient self-reports to diagnose and track a concussion. This is where Brain Gauge can help. Brain Gauge's metrics are measurements of real brain function. Specific tasks designed to test subject's response to illusory stimuli have demonstrated that subjects with concussion actually outperform their non-concussed measures. So, not only is Brain Gauge a biologically based measure, but it's a measure that can't be faked by understanding the system or "not trying."

WHAT MAKES BRAIN GAUGE DIFFERENT?

Brain Gauge doesn't rely on self-reported measures or a single imprecise measurement like some of the other concussion assessment aids. Brain Gauge tasks multiple specific neural pathways associated with concussion-related deficits. In a single, 20- minute battery of tests, Brain Gauge is able to compute measures of subjects': Speed, Focus, Fatigue, Timing Perception, Temporal Order Judgment, and Accuracy.

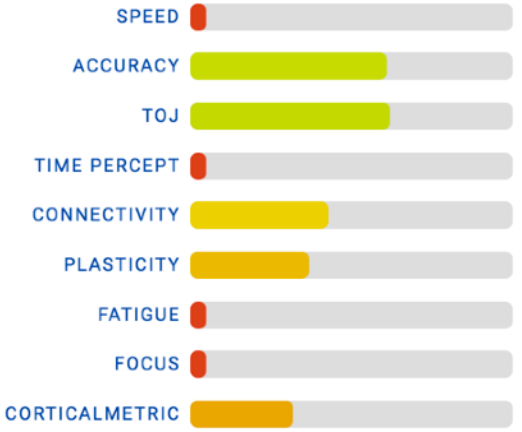


Some of these tests rely on global neuroanatomy, like plasticity and synchronization, and others measure specific regions and their functions, like timing perception in the cerebellum.

The results obtained using the Brain Gauge system are provided in color-coded bars. The green bars represent acceptable results, the yellow cause some concern, and the red are unsatisfactory. Use Brain Gauge in conjunction with self-reported symptoms to improve concussion diagnostics.

SAMPLE SUBJECT RESULTS

Subject Results 1 Day After Concussion



Subject Results 14 Days After Concussion