The usefulness of quantitative EEG (QEEG) and neurotherapy in the assessment and treatment of post-concussion syndrome

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• PMID: 15493535

• DOI: <u>10.1177/155005940403500410</u>

Abstract

Mild traumatic brain injury (TBI) is associated with damage to frontal, temporal and parietal lobes. Post-concussion syndrome has been used to describe a range of residual symptoms that persist 12 months or more after the injury, often despite a lack of evidence of brain abnormalities on MRI and CT scans. The core deficits of post-concussion syndrome are similar to those of ADHD and mood disorders, and sufferers often report memory, socialization problems and frequent headaches. While cognitive rehabilitation and psychological support are widely used, neither has been shown to be effective in redressing the core deficits of post-concussion syndrome. On the other hand, quantitative EEG has been shown to be highly sensitive (96%) in identifying post-concussion syndrome, and neurotherapy has been shown in a number of studies to be effective in significantly improving or redressing the symptoms of post-concussion syndrome, as well as improving similar symptoms in non-TBI patients.