

# **Mild Traumatic Brain Injury--The "Missed" Diagnosis**

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Of all the psychological diagnoses available, it is our opinion that the one that is most commonly misunderstood and misdiagnosed is that of mild traumatic brain injury (MTBI). Mild traumatic brain injury, also called closed head injury or post-concussion syndrome, is a condition where an individual suffers a blow to the head and subsequently develops symptoms.

Although some research suggests that most MTBI symptoms will improve in three or four months, other research shows that in many cases the symptoms will remain for years following even a mild concussion, whiplash, or blow to the head. The inconsistent results are due to varying definitions of MTBI, how the data is gathered, what constitutes 'real' symptoms, and perhaps most importantly, the "human factor" the beliefs and biases of the various researchers.

It can be hard for some people to believe that even a mild blow can be the cause of so many symptoms. In an emergency room, physicians are primarily screening for serious brain injuries, and mild brain injuries are generally not noticed. When the patient has been told that they seem fine, but later develop symptoms, other people, the patient themselves, and insurance companies may not consider the symptoms to be from the mild head injury. In addition, the symptoms of MTBI are not specific to only a head injury. Virtually every symptom that can be associated with MTBI, as seen in the lengthy list below, can be due to other disorders. Therefore, if after hitting your head you have been told that you are okay, and the symptoms you notice later are not necessarily associated in your mind with a blow to the head, you may not connect the symptoms with a brain injury. The end result is that sometimes months or even years after a whiplash or blow to the head, MTBI is often not even considered as a possible cause of symptoms. The correct diagnosis is, therefore, "missed" and the person may not be taken seriously, be sent to psychotherapy, or even be thought to be fabricating symptoms.

Listed below are some of the symptoms that are most commonly associated with a mild head injury. Of course you do not need to have all of the symptoms that are listed for a diagnosis of MTBI. Symptoms vary depending on the severity of injury and the parts of the brain that are injured. You will want to determine, has there been an increase in symptoms like these following a whiplash, concussion, or mild head injury?

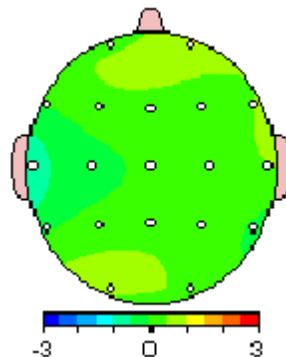
## **Common Symptoms Associated With MTBI**

- Difficulty figuring out how to do new things.
- Being disorganized in your approach to problems.
- Having difficulty completing activities in a reasonable amount of time.
- Being slow to learn new things.
- Becoming easily frustrated, irritable, and having outbursts of anger or rage.
- Problems with word finding (remembering the right word to say).

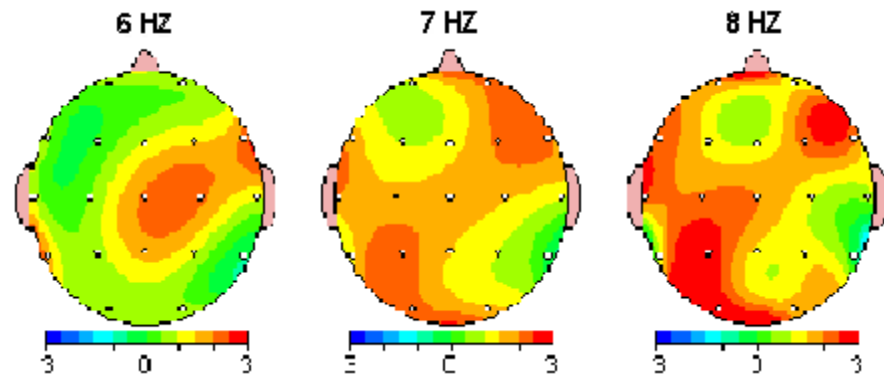
- Hypersensitivity to light or sound.
- Problems with concentration and being easily distracted.
- Spacing out and losing your train of thought.
- Problems with short-term memory.
- Becoming more forgetful.
- Increased frequency of headaches.
- Increased impulsiveness, impatience, risk taking, rudeness, or social impropriety.
- Fatigue
- Fibromyalgia type symptoms: mental foginess, difficulties getting restorative sleep, diverse pain.
- Problems with physical balance, dizziness, tremor, clumsiness, or incontinence.
- Having difficulty in being able to be flexible in changing plans or switching from one activity to another.
- Problems reading letters and words.
- Difficulty in understanding what others are saying.
- Confusion in telling right from left, or with puzzles.
- Getting lost easily.
- Being fidgety and having difficulty remaining seated.
- Going from one activity to another without finishing tasks or projects.
- Decreased libido.
- Difficulty with speech, language, or math skills.
- Seizures.
- Sensory problems with: vision, hearing, taste, smell, sensation.
- Emotional difficulties (depression, fear, nightmares).

Following a concussion or head injury, emergency room physicians commonly order CAT scans or MRI's to rule out serious injuries. Unfortunately, these scans usually don't reveal mild to moderate damage because they are examining only the structure of the brain and not how the brain is functioning. Therefore, as we have indicated, the subsequent MTBI symptoms may not be taken seriously or be attributed to the head injury. However, there are other tests such as the quantitative EEG (QEEG), PET, or SPECT scans that evaluate how the brain is functioning in comparison with normative databases.

This is an example of a QEEG brain map on a relatively normal person who has not had a brain injury. The green color represents normal function.



In comparison, below is an example of a QEEG brain map on an individual that suffered a serious MTBI brain injury in an automobile accident.



The red and orange areas in this example show serious deviations from normal in how the brain is functioning. These areas have sustained damage as the brain rebounded from the left posterior area to the right frontal area during the crash. The brain wave activity has become very slow in these areas.

In our clinical experience, neurofeedback training often proves extremely helpful in providing further rehabilitation of brain injury as well as stroke symptoms, even many years after the injury has occurred.