



“Treating Barbara’s family made it clear to me that mind, brain, and relationships are not separate elements of life—they are irreducible aspects of one interconnected triangle of well-being.”

Daniel J. Siegel, M.D. Author of *Mindsight: The New Science of Personal Transformation* (Bantam, 2010)

Dr. Dan Siegel eloquently writes about how our mind, brain and relationships co-create our lives. What about someone whose brain is so impaired it becomes an obstacle to beginning a mindfulness practice? Some trauma-related or organic neurologic dysfunction will significantly reduce the likelihood that one will develop an effective meditation/mindfulness practice. The woman referred to in the above quote, Barbara, suffered a traumatic brain injury as a result of a car crash. Her brain injury subsequently affected each individual in her family unit and their well-being. In this scenario, EEG biofeedback could play a role in restoring Barbara’s brain function.

EEG biofeedback, also known as neurofeedback, activates the brain’s natural ability to form new connections in response to experience. This proven form of brain training has restored brain function in many individuals who have suffered from a traumatic brain injury. The training appears to be effective even years post-injury, when spontaneous remediation is no longer expected. The symptoms which accompany a head injury which neurofeedback may help are: loss of energy, headaches, difficulty concentrating, anxiety, obsessive thoughts, depression, rage, seizures, insomnia and even personality changes. Sometimes people are not even aware that their brain function has been undermined, because the pivotal event was not as significant as a car crash. Or, perhaps they have no memory of the event as is the case of a forceps birth or did not make the connection that their issues developed after general anesthesia. In these instances neurofeedback may be helpful in addressing what we call the hardware or anatomical functioning of the brain to increase the readiness of an individual to add a mindfulness practice to their daily life.

Populations of people who have experienced trauma or have severe anxiety, addiction, fears and phobias have what we consider a software issue – their brain too easily goes into an acute survival response. Neurofeedback appears to work by training the cortex to remain engaged and not be bypassed as usual during a fight-or-flight reaction. It improves the ability of a person to quiet their mind, therefore, better prepare them for a daily practice of what Dr. Dan Siegal calls “Mindsight”. In other words, neurofeedback increases the brain’s capacity and prepares a person for a daily mindfulness practice, which in turn facilitates change to manifest in their life.

In the process of awakening the mind, people need to let go of control. Most people have beliefs about what letting go of control would look and feel like, but BrainPaint gives a person an experience of it through real-time feedback. For example, when a person is increasing his or her present awareness it will trigger sound and visual cues and when there is an increase in gamma bursts, a brainwave frequency associated with an increase in new neural connections which happens when the brain is learning a new behavior, there is a corresponding increase in the brightness of the fractals on the screen. Think of neurofeedback as learning mindfulness with training wheels. Once the brain learns how to balance its self-regulation of thoughts, feelings and focus a person can more easily deepen their daily mindfulness practice.