

## Trauma and the body; leaving it's mark on a neurobiological level

Leigh Richardson

Brain Performance Center, USA.



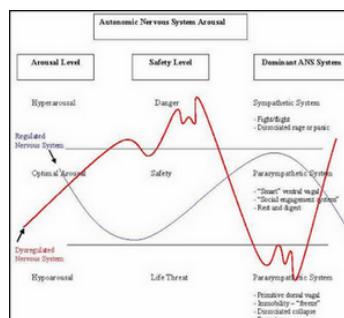
### Abstract

About 8 million people suffer from PTSD during a given year. Psychological trauma is the unique individual experience of an event, a series of events, or set of enduring conditions in which the individual experiences a threat to life, bodily integrity, or sanity. After the threat has passed, the trauma lives on as an emotional memory in the body and brain, and converts the past into an expectation of the future. Not understanding trauma, individuals identify and connect to the emotion.

Trauma survivors remember the event through their senses, what they saw, felt, heard, smelt, and tasted. These sensory elements become implicit memories, automatic or unconscious. The human body is self-protective and the brain is biased to respond to any danger signal it has known before. When something happens, they are triggered, and can't prioritize the past from the present. They shut down.

Neuroscience has offered new theories about how the brain processes traumatic experiences. A recent important finding has shown that the frontal lobes which are responsible for higher level thinking area, become less active under stress, and the body goes into an emergency stress response. Our sympathetic nervous system takes over and puts us in the fight or flight mode. This state of hyperarousal causes the adrenal glands to release cortisol, which triggers the parasympathetic nervous system that has a freeze-submit mode.

To address the somatic legacy of trauma, we must first discover how the body has remembered the trauma, and then utilize somatic experiences needed for resolution. The therapy is less focused on what happened then and more focused on understanding the habits of response; too much or too little affect, movement or stillness, and helping the client to stay in the present. Regulation of arousal is the foundation for successful treatment, and keeping the frontal lobes "online" is a priority. Mindfulness is one of the tools used to discover and transform how the client organizes thoughts around the event.



### Biography

In 2009 Leigh opened the Brain Performance Center offering a wide array of treatment options, neurotherapy, neurostimulation and CBT for many neurological issues. In the last 15 years Leigh has observed trauma on all levels, at all ages. This led to her obtaining a Trauma Certification, CCTP I and II. Leigh is the author of Turn Your Brain On, Get Your Game On, an international speaker, and regular contributor to FOX news as a brain health expert. She is the Clinical Director of the Brain Performance Center.

### Publication

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