



Los Angeles County DMH, Continuum of Care Reform Division

Trauma / Resilience Tip of the Week: Neurobiology of Trauma

Ultimately, it is the brain that processes and internalizes traumatic experiences including attachment trauma. It is the brain that mediates all emotional, cognitive, behavioral, social and physiological functioning. Understanding the organization, function and development of the human brain, and its responses to threat help us understand the traumatized child.



The Hippocampus and Amygdala play critical roles in the processing and encoding of a traumatic event.

- The Hippocampus is the brain structure that processes information into memories. This part of the brain helps to establish long term memory and encodes the information and then consolidates it.
- The Hippocampus works with the Amygdala in deciding how one's brain will respond to a situation.
- The Amygdala specializes in the processing of emotional information. When trauma occurs, this section of the brain can be overextended which can result in a person having difficulty controlling their emotional responses.
- Trauma often leads to changes in the stress response systems which can result in a decreased ability to self-regulate.

(<https://sapac.umich.edu/article/neurobiology-trauma>)