

IMPRINTS OF TRAUMA

Imprints of Trauma in the Brainstem

Dr. Bessel van der Kolk, a renowned expert in trauma, has helped us understand that trauma doesn't just live in our memories—it gets imprinted in our body and brain, particularly in the brainstem, which is the oldest part of the brain.

The brainstem governs our survival instincts, managing essential functions like breathing, heart rate, and the stress responses we discussed earlier. When trauma occurs, especially if it's overwhelming or repeated, the brainstem can get stuck in a heightened state of alertness. This means the body stays in a constant survival mode—ready to fight, flee, or freeze—even when the danger has passed.

Trauma bypasses logic

One key point van der Kolk emphasizes is that trauma bypasses the logical, thinking parts of our brain and leaves a deep imprint on the autonomic nervous system. This is why, when people experience trauma, they may have difficulty calming down or feel “on edge” long after the traumatic event or during periods of chronic stress. The body and brainstem remain hypervigilant, constantly scanning for threats.

Trauma memories are stored differently

Another important insight from van der Kolk's research is how trauma memories are stored differently. Instead of being processed like regular memories, stored trauma can be experienced as sensations or fragmented pieces of images, sounds, and emotions. These memories are often imprinted in the brainstem and limbic system, rather than in the thinking brain, which is why trauma can feel so visceral and why it can be triggered by sensory reminders—like a sound or a smell—that bypass conscious thought.

Physical Symptoms

What's particularly interesting is that these imprints in the brainstem often result in physical symptoms. People may experience chronic tension, digestive issues, or sleep problems—things that are regulated by the autonomic nervous system—because their brainstem, and therefore their body, is still responding to the trauma as if it's happening now - in the moment.

Van der Kolk's work reminds us that healing trauma isn't just about talking it out or understanding it rationally—it's about helping the body and brainstem release the deep imprints that trauma leaves behind. And again, this is why bottom-up therapies, which focus on regulating the body and calming the nervous system, are so essential in trauma recovery. By working with the brainstem and body, we can start to rewrite those imprints and move from survival mode back to a state of calm and safety.