

The Brain Remembers: Trauma-imprinted pathways to substance use

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There is growing recognition of the strong connection between childhood trauma and substance use. While substance use has many causes, trauma, especially during childhood, places an individual at significantly higher risk of developing a substance use disorder later in life. Trauma can alter how the brain's reward centres function, making individuals more vulnerable to substance use as a coping mechanism.

Defining trauma is complex. It is not about the event alone, but how it is experienced. Trauma may be a single threatening event, repeated harmful experiences, or complex harm often caused by adults. These experiences, when endured in childhood, tend to follow individuals into adulthood, triggering long-term mental health challenges. Substance use often becomes a form of self-medication to numb this persistent pain.

Adverse Childhood Experiences (ACEs), such as emotional, physical, or sexual abuse, neglect, or household dysfunction, can lead to toxic stress. The long-term effects may include addiction, diminished educational opportunities, and increased vulnerability

to exploitation. Substance use, in this context, offers a temporary escape, a form of 'freedom' from one's mind, but at a steep cost.

This is where the vicious cycle emerges. Substance use appears as the problem, but it can be the individual's remedy for unresolved trauma. When interventions target only the substance use without addressing the underlying trauma, they risk deepening the pain. Removing the coping mechanism without healing the wound can leave the individual more vulnerable, perpetuating the cycle.

Breaking this cycle demands trauma-responsive care that recognizes substance use not just as a symptom, but also as a problem. Vulnerable children must be protected, and survivors supported with compassion. Professional counsellors, caregivers, and communities must rally to interrupt this cycle, offering healing, understanding, and lasting change.