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Neurobiology of Addictive How Drugs Hijack the Brain

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Abstract: *Individuals, families, communities, and society as a whole bear significant health and financial costs as a result of substance and alcohol use disorders. Not every person responds well to prevention or treatment measures. Usually, the results are modest. The neurobiological alterations that take place when a person moves from recreational substance use to a substance use disorder or addiction have been described in part by advances in neuroscience and addiction research. Behavioral and biological traits that can raise the risk of addiction have been identified through research into the causes and effects of substance use in vulnerable groups, including those whose brains are still developing. These understandings are essential for creating focused prevention and intervention plans. We can improve the efficacy of treatment and support initiatives by customizing strategies to meet the unique requirements of at-risk populations. These f indings are important now because policymakers face challenges with the ongoing opioid crisis, the legalization of marijuana, new drugs entering the market, and high rates of "deaths of despair" from alcohol and drug misuse. Keywords Addiction; substance abuse; neurobiology; alcohol; marijuana; nicotine; opioids, addictive Substances hijack rewards.*

Keywords: neurobiology of addiction, dopamine, serotonin,endorphins , GABA, stimulants, Depressants, opioids, Nicotine, cannabis, hallucinogens, brain rewards pathway, mesolimbic, tolerance, genetic, epigenetic factors

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