



October 4, 2020

Drugs, Brains, and Behavior: The Science of Addiction

LRJ Foundation dedicates the month of October to education on the harmful effects of drugs on your brain and mental well-being.

When scientists began to study addictive behavior in the 1930s, people with addiction were thought to be morally flawed and lacking in willpower. Those views shaped society's responses to drug use, treating it as a moral failing rather than a health problem, which led to an emphasis on punishment rather than prevention and treatment (NIDA,2020).

As a result of scientific research, The National Institute of Drug Abuse (NIDA) states that addiction is a medical disorder that affects the brain and changes behavior (2020). NIDA has identified many of the biological and environmental risk factors and begin to search the genetic variations that contribute to the development and progression of the disorder. Scientists use this knowledge to develop effective prevention and treatment approaches that reduce the toll drug use takes on individuals, families, and communities (NIDA,2020).

Every year, illicit and prescription drug overdoses cause tens of thousands of deaths (nearly 70,000 in 2018), alcohol contributes to the death of more than 90,000 Americans, while tobacco is linked to an estimated 480,000 deaths per year.^{4,5} (*Hereafter, unless otherwise specified, drugs refers to all of these substances.*) (NIDA,2020)

What is DRUG ADDICTION? Addiction is a chronic, relapsing disorder characterized by compulsive drug seeking and use despite adverse consequences (Goldstein and Volkow, 2011). It is considered a brain disorder because it involves functional changes to brain circuits

involved in reward, stress, and self-control. Those changes may last a long time after a person has stopped taking drugs (2011).

“At the National Institute on Drug Abuse (NIDA), we believe that increased understanding of the basics of addiction will empower people to make informed choices in their own lives, adopt science-based policies and programs that reduce drug use and addiction in their communities, and support scientific research that improves the Nation’s well-being.” Nora D. Volkow, M.D. Director, National Institute on Drug Abuse

LRJ Foundation believes in education as prevention and the support for overall mental wellness. Check LRJ Foundation’s website weekly for updates under the resource tab; click here: [Videos and Articles](#).

In Health,
Teresa Ruspi, Executive Director/Founder
LRJ Foundation
#BetterThanYesterday

References

NIDA. 2020, July 20. Preface. Retrieved from <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preface> on 2020, October 2

Goldstein RZ, Volkow ND. Dysfunction of the prefrontal cortex in addiction: neuroimaging findings and clinical implications. *Nat Rev Neurosci*. 2011;12(11):652-669.

doi:10.1038/nrn3119