

Coffee and depression: The chemistry of pleasure and reward

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Abstract

Depression is the most common mood disorder and the leading cause of disability in the US and throughout the world. Besides a neurochemical deregulation, a neuroendocrine component composed of hypothalamic-pituitary-adrenal (HPA) system also plays important role in an individual's ability to cope with stress. All drugs of abuse, either legal ones (nicotine, alcohol) or illegal (cocaine, amphetamines, opiates) are typically taken because they produce feelings of euphoria, relieving distress, anxiety and depression. The way that drugs cause pleasure or reward is based on mimicking neurotransmitters that activate the brain reward system – the limbic system. The limbic system is involved with emotion, learning and memory. Positive experiences and the use of food (chocolate, coffee, alcohol) and drugs (cocaine, amphetamines, nicotine) may lead to rewarding feelings and conditioned behavior by means of reinforcing learning and memory mechanisms. Roasted coffee contains compounds that are pharmacologically active on the brain reward system. The speech will present and discuss the data available in terms of epidemiologic and animal studies that support the premise that Coffee is good for depression.

Biography

Dr. Santos has completed her Ph.D. in 2005 from State University of New York at Buffalo. She moved to USA in 1999 after 16 years of successful career as pharmacist in the areas of academia, industry and government in Rio de Janeiro, Brazil. She wrote books in collaboration with Brazilian experts on her research field of Coffee and Health benefits. She has served as consultant for coffee companies and peer reviewer for various journals of repute. Presently, she is focused in the validation of biomarkers for coffee consumption and development of coffee products as nutraceuticals.

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