

Neurological aspects of drug addiction

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Addiction (e.g. to tobacco, alcohol, cocaine, methamphetamine...) is a major health problem in both France and Japan. It accounts for a large amount of preventable morbidity and mortality. Drug addiction can be conceptualized as the continued making of suboptimal choices, despite knowledge of harmful consequences and an authentic desire to make better choices. A critical goal of current research is to understand how repeated drug use corrupts brain decision-making systems to eventually lead to addiction. According to current theorizing, drugs of abuse would bias optimal decision making by compromising the neural circuitry normally responsible for reward evaluation, prediction and learning. I will review evidence both for and against this view and suggest a few directions for future research on decision making in drug addiction.