

Addictions: Are overeating and drug use hardwired in the brain's 'reward circuit'?

Neuroscientists have found that food and recreational drugs have a common target in the "reward circuit" of the brain, and that the brains of humans and other animals who are stressed undergo biological changes that can make them more susceptible to addiction.

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In a 2010 study, Diana Martinez and colleagues at Columbia [scanned the brains](#) of a group of healthy controls and found that lower social status and a lower degree of perceived social support — both presumed to be proxies for stress — were correlated with fewer dopamine receptors, called D2s, in the brain's reward circuit. All rewards — sex, food, money and drugs — cause a release of dopamine, which conveys a sense of pleasure and tells the brain something like: "This is an important experience. Don't forget it!" The reward circuit evolved to help us survive by driving us to locate food or sex in our environment. Today, the more D2 receptors you have, the higher your natural level of stimulation and pleasure — and the less likely you are to seek out recreational drugs or comfort food to compensate.

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Nothing in our evolution has prepared us for the double whammy of caloric modern food and potent recreational drugs. Their power to activate our reward circuit, rewire our brain and nudge us in the direction of compulsive consumption is unprecedented.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [What Cookies and Meth Have in Common](#)