

## Why we crave sugar and why it's so hard to stay away from it

In neuroscience, food is something we call a “natural reward.” In order for us to survive as a species, things like eating, having sex and nurturing others must be pleasurable to the brain so that these behaviours are reinforced and repeated.

Increasing evidence suggests that much like nicotine, cocaine and heroin sugars hijack the brain's reward pathway and make users dependent. There are four major components of addiction: bingeing, withdrawal, craving, and cross-sensitisation (the notion that one addictive substance predisposes someone to becoming addicted to another). [All of these components have been observed](#) in animal models of addiction – for sugar, as well as drugs of abuse.

Sugar withdrawal is also real. In a [2002 study](#) by Carlo Colantuoni and colleagues of Princeton University, rats who had undergone a typical sugar dependence protocol then underwent “sugar withdrawal.” Additionally, a [new study](#) published by Victor Mangabeira and colleagues in this month's Physiology & Behavior reports that sugar withdrawal is also linked to impulsive behaviour. These are extreme experiments, of course. But these rodent studies certainly give us insight into the neuro-chemical underpinnings of sugar dependence, withdrawal, and behaviour.

Are you still motivated to give up sugar for Lent? You might wonder how long it will take until you're free of cravings and side-effects, but there's no answer – everyone is different and no human studies have been done on this.

**Read full, original story:** [Here's what happens to your brain when you give up sugar for Lent](#)