

Sugar Functions like 'Brain Crack' - Addicts Need it to Suppress Stress Signals

By: L.J. Devon, Natural News

A new experiment from the University of California, Davis, brings new understanding to how comfort foods work and how sugar functions like "brain crack," ultimately addicting comfort eaters. In the study, sugar was found to be a stress suppressant, limiting the stress hormone cortisol. Like a drug, the refined sugar quelled stress signals in participants' brains, convincing them to eat more sugar in times of stress. This can create a cycle of addiction as demonstrated in the two-week experiment.

During the two weeks studied, 19 women were given three beverages to drink each day that were sweetened with sugar, aspartame, or a substitute. After conducting magnetic resonance imaging brain scans on the participants, the researchers found that sugar affects a specific area in the brain responsible for reacting to stress. The artificial sweeteners didn't have the same action on the brain, but the study did not focus on these chemical sweeteners, which have their own set of cons.

Sugar limits cortisol levels in the brain, addicting users to the feeling of eating something sweet

Instead, the MRI results focused on how sugar interrupts the brain's normal response to stress. The researchers noticed the changes in the hippocampus region of the brain, pointing out that lower amounts of the stress hormone cortisol were being produced in the presence of sugar.

By limiting stress hormones in the brain, sugar acts like a drug, suppressing stress levels and addicting users.

Nutrition researcher and study author Kevin Laugero wrote in an email, "The findings suggest an explanation of how, mechanistically, sugar may positively reinforce its habitual consumption in people experiencing chronic stress."

Before the MRIs, the female participants were instructed to complete a set of difficult math problems in their heads. These usually push cortisol levels up as the brain is stressed out; however, the cortisol levels went down for women who drank the sugary beverages. The cortisol levels were higher in the women who drank the artificially sweetened beverages. It appears that the sugar helped the women cope, but in the long run, this stress signal suppression can lead to addiction.

Writing in the *Journal of Clinical Endocrinology and Metabolism*, the researchers said that acute stress usually blocks activity in the hippocampus. The sugar changed all that. Nevertheless, the researchers recommend that larger studies be conducted testing both male and female brains

to better understand how sugar consumption lowers stress levels and creates a cycle of addiction.

David Benton, a psychology professor at Swansea University in the U.K., suggested in an email that stressed out people might not crave actual sugar during times of stress, but they might feel the need to experience eating something sweet. The study shows that comfort eating is an addiction that happens in the brain, whereas people crave the experience of eating something sweet to block out the pressures of the day.

"The idea of being attracted to palatable foods in moments of stress is well described, for example chocolate, but this reflects the temperature at which it melts, the flavor of cocoa, mouth feel and a mixture of fat and sugar," said Benton.

Julie Rish, a psychologist with the Bariatric and Metabolic Institute at Cleveland Clinic in Ohio, pointed out that natural fruit and vegetable sugars aren't addicting in the same way as refined sugar. "People don't crave carrots or celery, they crave chocolate or ice cream," said Rish.

"Keeping a positive environment makes it harder to make an unhealthy choice and it also helps you to delay a response to the craving," Rish said. "Those cravings peak over 15 to 20 minutes and if you can just delay them and distract yourself for that long the cravings start to come down on their own."

Sources:

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