

Too much sugar during adolescence may alter brain's reward circuits

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A new study in rats may provide significant insights into the long-term impacts of over-consumption of sugary foods during adolescence.

The study shows that the enjoyment of such foods later in adulthood is reduced in those who over-consumed early in life. Investigators found that this decrease in reward relates to reduced activity in one of the key hubs of the brain's reward circuitry, called the [nucleus accumbens](#). Such long-lasting alterations could have important implications for reward-related disorders such as substance abuse or eating disorders.

"In spite of the dramatic increase in the consumption of sweet palatable foods during adolescence in our modern societies, the long-term consequences of such exposure on [brain reward](#) processing remain poorly understood," said Dr. Martine Cador, senior author of the *European Journal of Neuroscience* study.

More information: Fabien Naneix et al. Long-lasting deficits in hedonic and nucleus accumbens reactivity to sweet rewards by sugar overconsumption during adolescence, *European Journal of Neuroscience* (2015). [DOI: 10.1111/ejn.13149](https://doi.org/10.1111/ejn.13149)

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