# 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

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