

Drinking sugar-sweetened beverages during adolescence impairs memory

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Research to be presented at the Annual Meeting of the Society for the Study of Ingestive Behavior (SSIB), the foremost society for research into all aspects of eating and drinking behavior, finds that daily consumption of beverages sweetened with high-fructose corn syrup or sucrose can impair the ability to learn and remember information, particularly when consumption occurs during adolescence. Both adult and adolescent rats were given daily access to sugar-sweetened beverages that mirror sugar concentrations found in common soft drinks. Adult rats that consumed the sugar-sweetened beverages for one month performed normally in tests of cognitive function; however, when consumption occurred during adolescence the rats were impaired in tests of learning and memory capability.

The lead author, Dr. Scott Kanoski from the University of Southern California, says, "It's no secret that refined carbohydrates, particularly when consumed in [soft drinks](#) and other [beverages](#), can lead to metabolic disturbances. However, our findings reveal that consuming sugar-sweetened drinks is also interfering with our brain's ability to function normally and remember critical information about our environment, at least when consumed in excess before adulthood". In addition to causing memory impairment, adolescent sugar-sweetened [beverage consumption](#) also produced inflammation in the hippocampus, an area of the brain that controls many learning and memory functions. "The hippocampus is such a critical brain region for memory function", says Kanoski. "In many ways this region is a canary in the coal mine, as it is particularly sensitive to insult by various environmental factors, including eating

foods that are high in saturated fat and processed sugar."

Provided by Society for the Study of Ingestive Behavior

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