

# More than a spoonful? excessive sugar consumption and its effects on childr

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If a person were to ask any child about sugar, the child would probably tell them that they can't get enough of it. On the other hand, if the child's parents were asked about sugar, they would most likely say that their child needs to eat less of it. The common consensus among parents is that simple and refined sugars, like sucrose and fructose, are detrimental to the health of their children. But are they really? Does simple sugar consumption cause obesity and dental decay? What about the controversial belief that sugar intake can increase hyperactivity and cause children to develop long term behavioral disorders? These questions are complex and often difficult to analyze using quantitative research.

However, with some qualifications, the answers can be found using careful analysis of the common wisdom regarding sugar consumption, underlying biological and physiological concepts, and certain medical trials and studies. Though it is almost impossible to determine from the current data whether or not refined sugar consumption causes long and short term behavioral problems in children, it can be determined that increased sugar consumption increases the likelihood of obesity in children, and the likelihood of dental decay and disease. Probably the most controversial belief about excessive sugar consumption is that it increases hyperactivity and even long-term behavioral disorders in children. Parents commonly hear things in modern culture like " Don't give that child any more candy, or he'll be bouncing off the walls." More frightening, perhaps, are beliefs that sugar consumption can influence the development severe disorders such as ADHD.

In their study of low-income mothers' nutritional priorities, a group of researchers in Philadelphia found that " Mothers' aspirations were to: 1) <https://assignbuster.com/more-than-a-spoonful-excessive-sugar-consumption-and-its-effects-on-childr/>

prevent hyperactivity and tooth decay by limiting children’s sugar intake” (Herman). However, many physicians and medical researchers contest the belief that soda pop, candy, sweets, and other foods high in refined sugars create such problems in children. They claim that though high sugar foods can increase adrenaline levels in some cases, the effects are nominal, and are often exaggerated due to psychological factors. Neil K. Kaneshiro, an author of the National Library of Medicine’s public information center, MedlinePlus Medical Encyclopedia, explained, Refined (processed) sugars may have some effect on children’s activity. Because refined sugars and carbohydrates enter the bloodstream quickly, they produce rapid fluctuations in blood glucose levels.

This might trigger adrenaline and make a child more active. ... However, if a special diet of foods without artificial flavors or colors works for a child, it may be because that family has begun to interact with each other differently when they are following the special diet. These behavioral changes, not the diet itself, may improve the child’s own behavior and activity level.

(Kaneshiro). Yet there are some studies that show students who have meals with too many refined sugars, or high glycemic load meals, cannot concentrate in school. For instance a study done by researchers David Benton, Alys Maconie, and Claire Williams found that, “ Two to three hours after a low glycaemic load breakfast had been consumed ...fewer signs of frustration were displayed and initially more time was spent on task when working individually in class.

” (Benton). The medical community seems to be somewhat divided on the topic. As for long term behavior disorders, the factors, genetic and environmental, are so numerous and complex it is almost impossible to decide whether or not sugar is a major factor. A group of studies known as the GINI-plus/LISA-plus Studies concluded that high sugar diets with low nutritional value are associated with increasing emotional difficulties, like behavior problems and chronic inattention. (Kohlboeck). But they did not determine cause and effect.

And another study, from the ALSPAC Cohort in Europe, concluded that, “Neither junk food diet nor NMES intake at 81 months increase the risk of development of behavioral problems over the next 16 months.” (Peacock). The data for sugar consumption and short and long term behavioral disorders is practically inconclusive. Despite this lack of consensus in the medical community, many parents, as is indicated above in the Philadelphia study, still believe that sugar consumption definitely decreases child attention span. Parents also often believe that sugar will cause their children to have emotional and behavioral difficulties in the long term. Why is this? Common wisdom is often motivated by fear.

In this case, the fear that a child will not be up to performance standards may be what drives parents. By telling themselves that sugar is the source of their child’s problems, they can placate their fears of failure in the classroom. Though the data seems to be divided on the subject of sugar intake and behavioral problems, parents often choose to believe that sugar intake causes these problems. Parents show great concern for behavioral

problems and sugar consumption. A problem that parents are often less concerned about is obesity.

Childhood obesity is a dangerous epidemic in the United States, yet in the Philadelphia study, it was not mothers' number one concern. This is often the case throughout the country. Yet it has been proven that refined sugar consumption is perhaps the greatest cause of obesity in children. The DRINK study examined this by giving one group of children with a healthy BMI (Body Mass Index) one sugar free drink a day, and another healthy BMI group a sugar drink every day. " The sugar-free kids gained less body fat, 2.2 pounds (1 kilogram) less weight, and 0.

36 units less BMI than the sugary-drink kids." (Begley). In fact sugar drinks are even more problematic, according to one study, sugar drink consumption of pregnant mothers can effect their infant children. " Only maternal consumption of sweets and sugar-sweetened beverages, stress, and SNAP (food stamp receipt) were associated with infant overweight." (Watt).

This is especially disturbing, because it shows that family habits can influence a child's obesity problems even before they are born, much like drug and alcohol use. All in all, parents should be afraid of sugar causing weight problems in children. Excessive sugar consumption is a major factor increasing childhood obesity. Another problem that is proven to be associated with children's sugar consumption is dental decay. When sugar is consumed, some of it lingers on the teeth, providing a food source for bacteria. These bacteria are linked to dental problems like cavities, or caries.

A Swedish dental study found that sugary snacks are linked to caries in children. In their study, they examined the dental status of children who ate sugary snacks as compared to those who didn't. Out of those children who did not consume ice cream as a snack, for instance, only 10.7 percent experienced caries, while 17.4 percent of those who did consume ice cream had caries. Obviously, sugary snacks increase the chance of tooth decay greatly.

This has been known to the medical community for some time. In his book, *Nutrition and Disease: Looking for the Link*, D. J. Arneson said that in the late 1800's, "experiments showed how carbohydrates mixed with saliva to eat away the hard surface of teeth, exposing the softer inner part to decay." (Arneson, 106-07).

Luckily, most parents are concerned about this problem and are actively involved in their children's dental health, meaning that cavities are not as dangerous an epidemic as obesity is. A little sugar is almost never a bad thing. As Mary Poppins famously sings in the Disney film, "A spoonful of sugar helps the medicine go down." (Mary Poppins). But in larger portions, sugar can lead to obesity and dental decay.

Whether sugar creates behavioral problems, as many parents fear, is unclear. The data on both sides is confusing and ambiguous, and does not clearly determine cause and effect. However, regardless of whether or not sugar causes hyperactivity and ADHD, it is still beneficial for parents to limit sugar consumption. Obesity, tooth decay, and other problems will be averted by moderating sugar consumption. In general, parents who emphasize

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moderation in their children's nutrition will find that their children become healthy and happy adults.

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