

# Is there a link between Soft Drink Consumption, Obesity, and Tooth Wear in Children?

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## Editorial

Nowadays, we encounter dietary changes, especially shifts in the types and quantities of beverages consumed by children. Unfortunately, most children are not willing to intake milk which could affect their oral health. Researches show that drinking high-sugar soft drinks is most commonly correlated with obesity, type two diabetes, oral manifestations such as teeth caries, and dental erosion [1-4]. In other words, the harmful effect of these beverages has been seen on the dental and general health of people including children and adolescents. The high content of sugar and acids with cariogenic and acidogenic potential could improve dental caries, tooth erosion, and the inverse effect on the general health of children and adolescents leading to overweight and obesity. On the other hand, it has been proven that there is a link between excessive-high consumption of soft drinks and an increased risk of type 2 diabetes. In their study, Ludwig and his colleagues indicated an association between that increasing energy intake related to soft drinks and an increased level of obesity among American children and adolescents [5]. In a systematic review, Ludwig showed that soft drink consumption alone is the main factor in to increase in caloric intake and is the higher level of obesity in American adolescents [6]. On the other hand, Liu et al, believe type 2 diabetes, cardiovascular diseases, and asthma are the conditions that are linked to obesity and nutritional imbalances [7]. A few studies have revealed the link between obesity and tooth wear in children [8-10].

Beyond the acidity role of sugar-sweetened drinks, obesity may have an independent effect on tooth wear. Obese children may suffer from esophageal dysfunction, such as increased acid exposure and reflux symptoms that may prone these children to erosive tooth wear [11,12]. Besides, excessive consumption of soft drinks develops dental caries in children over time. In 2019, a new study from King's College London found that soft drinks, and acidic fruit juices, are a common cause of obesity and tooth decay in adults. Furthermore, they found that being overweight or obese is related to tooth decay, and also increased consumption of sugary soft

drinks may be a major cause of enamel and dentin erosion in obese patients due to their acidic nature [13]. Based on these findings, it can be concluded that children and adolescents are no exception to this rule. To summarize, it should be emphasized that the frequency of consumption of soft drinks is significantly associated with dental erosion, dental cavities, and obesity in children. Children's education about the harmful effects of excessive soft drink consumption is necessary and selecting a non-carbonated soft drink could help them to alleviate dental erosion, dental caries, and prevent obesity and diabetes in the future. Needless to say, patients can prevent tooth wear and obesity by changing their consumption habits, and diets that hamper the problem to get worse.

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