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# You Can't Handle the Tooth!: College Students' Favorite Drinks Are Attackers to Oral Health

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Staff Article

We have all waited in line for coffee or another type of caffeinated beverage to wake up for 8 a.m. lectures, to carry us throughout the day, or to give us an evening pick-me-up. Student-athletes can be seen drinking energy drinks or sports drinks after practices to remain focused throughout the day. Almost all of us have been reliant on caffeinated drinks at some point, but why is it worth mentioning? Well, these kinds of drinks can be detrimental to your dental health, especially if you do not brush consistently!

Because caffeinated drinks are so popular, a survey was performed to determine the crowd favorites among college students. According to 290 undergraduate and graduate students who completed the social media survey, the most popular caffeinated drinks of choice are coffee, Redbull, Bang Energy, Diet Coke, Mio Energy Enhancer, and various Starbucks products. Popular sports drinks are Gatorade, Powerade, and Celsius. This poll also asked students to disclose their water consumption (in liters) throughout the day.

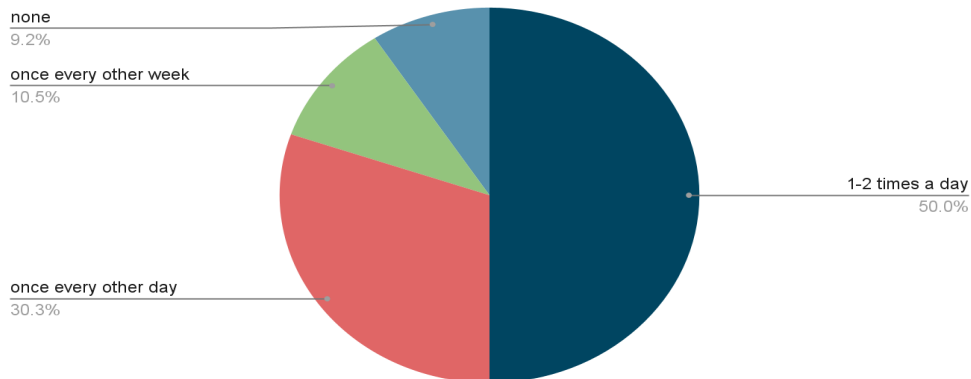
We have established the popularity of caffeinated drinks, but why should consumption be monitored? Drinking caffeinated drinks, especially coffee, can both stain your teeth and cause damage beneath the enamel. Leaving teeth unbrushed after

consuming coffee can erode the enamel and cause plaque buildup (2). Plaque's residue promotes bacterial growth between the teeth, which causes oral disease or cavities (4). Other popular caffeine choices like RedBull, Mio Water Enhancer, Diet Coke, or Starbucks products have low pH levels, indicating that they are acidic. The acidity of these drinks will erode the teeth's enamel and expose the dentin underneath. Once the dentin is exposed, it can create many issues, one of the most common being tooth sensitivity (3). Drinking beverages with pH levels of 5.5 or 8.5 is more beneficial, such as water or tea.

Sports drinks have a similar effect as caffeine. One of the most popular sports drinks on college campuses is Gatorade. Gatorade, like other sports drinks, lowers the pH normally found in the mouth (1). Adding sugar and altering the pH of the mouth to be more acidic will permit cavities, tooth decay, and erosion of the enamel (2). This is not to say that sports drinks are not beneficial when used correctly. Sports drinks' main purpose is to quench thirst, limit dehydration, supply electrolytes, and increase saliva flow. All of these components prevent cavities. However, if the beverage is consumed too often, it can be harmful to the teeth.

### Caffeinated/Sports Drinks Consumed in a Day

College students' poll on how many times in a day, weekly, or none at all they drank caffeine or sport drinks.



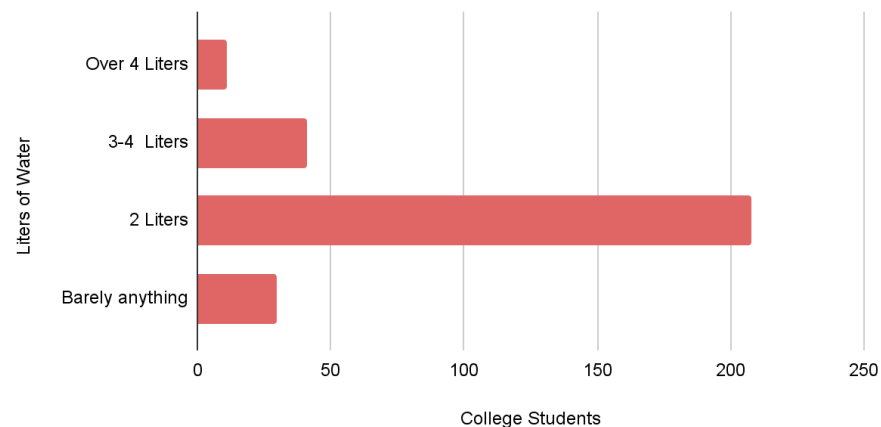
The results of the social media questionnaire that was provided to students indicated that some college students may be abusing these sugary drinks. 50% of the 290 students consume a sugary drink one to two times a day, 30% drink sugary drinks once every other day, and less than 20% drink sugary drinks once every other week. These drinks can be enjoyable, but we have to consider the frequency of drinking them. Simply moderating the consumption of these drinks can prevent oral health and health risks (diabetes, tooth decay, cavities, etc.).

These drinks can be safer when paired with food or water. Eating food promotes saliva buildup that acts as a buffer to protect the enamel against sugary or acidic drinks. Water dilutes the drink and provides the same protection against enamel degradation. Water can also act as a natural cleanser by rinsing the teeth after consumption of something else. Statistically, 71% of the 290 students drink just 2 liters of water in a day, 14.9% of students drink 3 to 4 liters of water in a day, and 3.8% claim to drink less than 2 liters. Some students (10.3%) barely drink any water during their day. The U.S.

National Academies of Science, Engineering, and Medicine deems 3 to 4 liters is sufficient, which is only accomplished by 14.9% of the students. This is worrisome. This means that 85.1% of students are drinking less than the recommended amount, with 14.1% drinking far below the bare minimum. Water is a necessary part of living and it should be consumed as recommended because it helps keep the mouth healthy, acts as a natural mouth cleanser, and washes away unwanted bacteria.

### Water Consumption

Water consumption by college students in a day.



From an economic standpoint, water would be the cheapest choice for college students to purchase rather than a \$5.00 cup of coffee or \$6.00 energy/sports drink. It also happens to be the healthiest choice. Water remains the best option, especially to drink in the morning to help keep the mouth from going dry and to dilute any fruit juices or coffee you might drink in the morning to keep the pH levels balanced.

In essence, when consuming acidic beverages, eat something with them or drink water afterwards if you cannot brush right away. Also, remember to be consistent with brushing and flossing as this will help further defend the teeth!

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