

TikTok's alternative soda trend could be tough on teeth

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New research finds acids in sugar-free beverages could erode tooth enamel, as a recipe mixing flavored sparkling water with balsamic vinegar to create a so-called "healthier" alternative to soda takes TikTok by storm.

The research, published online in the open access journal *JADA Foundational Science*, adds to our understanding about the importance of limiting consumption of acidic beverages. The TikTok video of adding balsamic vinegar (an [acid](#)) to flavored sparkling water (an acidic beverage) recently received more than 6.3 million views.

"I love [balsamic vinegar](#), but I enjoy it more on my salad than in my drinking glass. It's much kinder to the [teeth](#) than bathing them in a beverage blend of two acids," says Dr. Edmond Hewlett, a spokesperson for the American Dental Association. "The more acidic the drink, the greater the risk of [tooth erosion](#) with frequent consumption."

Acidic foods and beverages can wear away the enamel that protects teeth, a process known as tooth erosion. Tooth erosion is permanent and may open the door for bacteria to cause cavities or infection. It can also make teeth appear discolored, as white enamel is worn away to expose the yellow layer below called dentin.

Research and results

In the study, researchers wanted to see whether non-carbonated bottled water, flavored sparkling water and plain sparkling water might cause dental erosion. Recently extracted human teeth were soaked in 7 different sugar-free beverages (and one soda with sugar for comparison) to see which, if any, beverages caused erosion. Teeth were exposed for twenty-four hours, which the researchers considered to replicate a year's worth of exposure to these beverages.

When measuring the results of soda with sugar versus sugar-free soda, they found acids in both caused dental enamel to erode. Sweetener type was less of a factor, as it was the acid in the beverage that eroded the enamel.

Researchers also observed erosion in flavored sparkling waters, though it was less than that observed for sugar containing and sugar-free soda. The only beverages in the study that did not erode enamel were non-carbonated, non-flavored bottled waters.

Consuming acidic foods and beverages

While the TikTok recipe was not included in the study, it is similar to the other sugar-free, acidic beverages tested.

"People find carbonated beverages refreshing, especially this time of year. Enjoy them in moderation and preferably with meals," Dr. Hewlett says. "But if you're looking for a glass of something that is actually good for your [dental health](#), regular water, including fluoridated tap water, or milk are always good options."

The American Dental Association offers these tips to reduce tooth erosion from acidic food and beverages:

- Use a straw, sip and swallow—do not swish or hold it in your mouth longer than you need to.
- Wait an hour before brushing to give saliva a chance to naturally wash away acids and re-harden enamel.
- Rinse with water, drink milk or enjoy a snack of cheese right afterward. Dairy and other calcium-rich foods can help neutralize acids.
- Keep saliva flowing to keep acids under control and protect your teeth. You can do so by chewing sugarless gum.
- Look for dental health products like enamel erosion control toothpaste and sugarless gum with the ADA Seal of Acceptance, which indicates the product has been rigorously and independently evaluated by dental experts.

- Practice good oral health every day: Brush twice a day with fluoride toothpaste, clean between your teeth daily with floss or another interdental cleaner, eat a [healthy diet](#) that limits sugary foods and beverages, and visit a dentist regularly.

More information: Scott D. Eckhart et al, The erosive potential of sugar-free waters on cervical dentin, *JADA Foundational Science* (2022). DOI: [10.1016/j.jfscie.2022.100009](https://doi.org/10.1016/j.jfscie.2022.100009)

Provided by American Dental Association

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