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The Effects of Various Liquids on Hydroxyapatite Calcium Tablets, an Inadequate Model for the Human Tooth Enamel

In Denver Public Schools, soda machines have been removed to prevent childhood obesity and diabetes. There was no discussion about how soda affects student's teeth. Hydroxyapatite calcium tablets might be a model for the study of human tooth decay. To measure the decay of the tablets, I soaked one tablet in half a cup of one of five liquids: vinegar (control), soda, milk, sugar water, and tap water. I then let the tablets dissolve for half an hour, stirring every three minutes. After the full thirty minutes, each tablet was drained of its liquid and dumped onto a paper towel for qualitative examination and quantitative measurement. Countering my hypothesis, the vinegar did not break down the tablet the most. The water, with its pH level of 7, ended up breaking down the tablet the most. After the end of each trial, the water was so broken down I was not able to measure the perimeter of the tablet. The test results and analysis of the data indicate two key points. What is in Denver water that would make the tablet break down so much? And if water breaks down hydroxyapatite calcium tablets, then they are an inadequate model to study human tooth decay. The question still remains. What is an adequate model for the human tooth enamel?