

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

Adam C. Lopez

Project Number

J1812

Project Title

The Naked Tooth

Abstract

Objectives/Goals

The objective of my project is to show that drinks with more additives will cause the most tooth decay.

Methods/Materials

I used "Monster" energy drink, Diet Coke, Sprite, Sprite Zero, and Clear American carbonated water in my project. During a 4-day period, a tooth was submerged in their respective drinks. Once a day, the teeth were carefully removed using tweezers, weighed, and documented the weight loss.

Results

The scale showed the tooth which was submerged in the Monster drink had the highest weight loss of 4mg, followed by Diet Coke with a wieght loss of 2mg, and Sprite with a weight loss of 1mg. Sprite Zero and Clear American drinks remained unchanged.

Conclusions/Discussion

My conclusion is that drinks with high amounts of additives cause the most damage to the tooth enamel, in the form of discoloration and tooth decay. Monster energy drink dissolved the tooth enamel the most, at a total of 4mg.

Summary Statement

The ingredients and additives in energy drinks and sodas cause tooth decay.

Help Received

My Mother helped me take pictures and drive me to and from Via Verde Pharmacy to weigh the teeth with the assistance of Rich Reggio, Pharm. D.