

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

Taylor S. Parkinson

Project Number

J1424

Project Title

The Battle of the Energy Drinks

Objectives/Goals

Abstract

The objective of my project is to determine if higher caffeine content in an energy drink increases heart rate the most. I believe the higher the caffeine content in an energy drink, the more it will increase a person's heart rate.

Methods/Materials

Four different energy drinks were used for this experiment: Red Bull, Amp, Monster, and Rockstar. Six subjects were tested. Two of the subjects were caffeine tolerant(the subjects drink coffee and energy drinks on a regular basis). Two of the subjects do not drink caffeine on a regular basis. The final two subjects were children(11 year olds). The heart rate of each subject was measured before drinking the energy drinks. Each subject was asked to drink one of the four energy drinks. When the energy drink was consumed, the subject's heart rate was measured every 15 minutes for an hour. This process was repeated for each subject on seperate days until all four energy drinks were consumed. Only one energy drink was consumed per day for all subjects.

Results

Rockstar, with a caffeine content of 150 mg, increased the heart rate the most peaking at 30 minutes for all six subjects. All six subjects rated Rockstar as the strongest energy drink and indicated that the effects of this energy drink lasted the longest.

Conclusions/Discussion

My conclusion is that caffeine content has an important role in judging hwo much an energy drink will affect the heart rate. Energy drinks with higher caffeine content will increase heart rate more.

Summary Statement

Finding how caffeine content in energy drinks affects heart rate.

Help Received

Mom helped paste work on board.