

CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

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Project Number

J1224

Project Title

Tea Time: The Effect of Tea on Blood Pressure

Abstract

Objectives/Goals

This project is meant to find out if drinking peppermint tea or chamomile tea can lower blood pressure.

Methods/Materials

First I asked each potential subject if they would like to participate in my study. If they agreed, I had them randomly select a slip of paper out of a cap to determine the order of the teas they would drink. (The papers were labeled 1=No tea, 2=Peppermint tea, and 3=Chamomile tea.) On the day of each test, I gave the subject a pre-survey to make sure they hadn't eaten recently and to determine their overall level of well-being before beginning the test. If the subject qualified for participation, I would continue with the test. First, I measured the test subject's blood pressure with a battery powered blood pressure reader, and recorded the numbers. After reading their blood pressure the first time, I gave them 8oz of tea and 5 minutes to completely consume the tea, or just wait if they received no tea for that day. When the 5 minutes were up, I waited another minute for the tea to have a chance to take effect. After the minute I measured the subject's blood pressure using the same blood pressure reader and recorded the data.

Results

Results of the experiment show that peppermint tea can lower blood pressure more than chamomile and no tea. The mean change for peppermint tea was a decrease of -3.67 mm Hg(systolic)/-5.89 mm Hg(diastolic)compared with the means of chamomile tea which scored an increase of +3.75 mm Hg (systolic)/ 0.125 mm Hg(diastolic) and no tea which had mixed results with a decrease of -0.13(systolic)/ +3.3(diastolic.

Conclusions/Discussion

Results of this experiment disagree with my hypothesis because I thought drinking chamomile tea would have the greatest effect on blood pressure. In the future students may want to look at the effect of drinking different types of tea on mood.

Summary Statement

This project is meant to find if, and which type of tea can lower blood pressure.

Help Received