

# CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)

Michelle A. Gelejian

**Project Number** 

**J2009** 

**Project Title** 

**How Sweet It Is!** 

## Abstract

# **Objectives/Goals**

This project was designed to measure glucose level in various food and juice categories. Too little glucose in the blood, and your brain and other organs will not have the energy they need to function. Too much glucose in the blood can cause diabetes. To know the concentration level of glucose in a variety of common fruits and juices, will help us separate the ones which are high in glucose, so that we can minimize them from our daily diet. Since too much glucose in our blood can cause diabetes, which is not a good disease to have.

## Methods/Materials

I performed the following steps to measure the concentration of glucose in a variety of foods:

Poured a small amount of liquid into a cup.

Dipped the test strip into the liquid or pressed the test strip on the foods.

Started the stopwatch as soon as the test strip has been dipped, waited for 30 seconds.

Compared the color on the test strip with the color on the side of the container to determine the glucose concentration.

Materials:

Disposable cups

Glucose tablets

Tap water

Glucose testing strips

Foods and Juices (Orange juice, Mango juice, Ketchup, Peanut Butter, Honey, Ice cream, Pear, Apple, etc.)

#### Results

I was very surprised in my test results. My hypothesis was actually disproven. I thought that orange juice would have the highest amount of glucose, but my tests showed that in fact mango juice was the one with the highest amount of glucose.

### **Conclusions/Discussion**

With these experiments, I learned that a little bit of glucose is ok, but too much glucose in the blood can cause diabetes. It is better to know what#s in your food, so you can have more control over what you eat. I can use this information to help people be aware as to the types of food they eat, so that they may eat healthy and live longer.

## **Summary Statement**

To measure the concentration of glucose in a variety of common fruits and juices, in order to find out which ones are high in glucose, so we can minimize them from our daily diet.

## **Help Received**

My mother helped me with the photos.