



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Meagan G. Martin	Project Number J1423
Project Title Puffing and Pumping	
Abstract Objectives/Goals My objective was to find out if the pulse taken after smoking would be higher than the pulse taken before smoking a cigarette. My hypothesis was that the second pulse recording would be higher because of a stimulant in tobacco called nicotine. Methods/Materials 20 smokers were tested for this experiment, seven females and 13 males all between the ages of 18 and 25. Their pulse was taken for one minute before they smoked and then again after they had smoked for two minutes. Results According to the results of my experiment, after averaging all of the participants' heart rates, a smoker's pulse raises 10 beats after smoking for two minutes. Conclusions/Discussion My conclusion is that smoking does raise the heart rate, an average of 10 beats after two minutes of smoking, proving my hypothesis to be correct. This is one example of the harm smoking does to a human body, as shown from the heart rate increase after smoking for as short a time as two minutes. The heart has to work harder to supply the body with blood because of the constriction of the blood vessels caused by nicotine.	
Summary Statement My project, Puffing and Pumping, was done to find out if smoking raises the heart rate.	
Help Received Friend helped take pulse and find smokers.	